AMERICAN RIVER COLLEGE
4700 COLLEGE OAK DRIVE, SACRAMENTO, CA 95841

LOS RIOS COMMUNITY COLLEGE DISTRICT

ARC.LOSRIOS.EDU

2018 STATE WOMEN’S VOLLEYBALL CHAMPIONS
This addendum to the 2019-2020 American River College Catalog contains important changes and additions. This addendum was updated after the 2019-2020 American River College Catalog went to press in March.

2019-2020 College Catalog Corrections
Realignment of ISLOs to GE areas: Catalog – pg. 63-68
Law Office Clerical Assistant Certificate: Catalog – pg. 398

Transfer Information Corrections
AP (Advanced Placement) Exam Scores: Catalog – pg. 77
CLEP (College Level Examination Program): Catalog – pg. 79

Approved Certificates of Achievement
Shielded Metal Arc Plate and Pipe Certificate
Automotive Claims Estimator

New Courses
New courses added to the 2019-2020 College Catalog
The information listed is a correction for the 2019-2020 Catalog

The following are corrections to the Institutional Student Learning Outcomes, see page 63-68 of the 2019-2020 Catalog.

Realignment of ISLOs to GE areas

Institutional Learning Outcomes aligned with Humanities:
• Demonstrate skills and behaviors which 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.

Institutional Learning Outcomes aligned with Language and Rationality:

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.

Communication and Analytical Thinking component
• 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.

Institutional Learning Outcomes aligned with Living Skills:
• demonstrate personal and professional readiness for career and/or academic advancement.
• demonstrate skills and behaviors which 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.

Institutional 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.

Institutional Learning Outcomes aligned with Social and Behavioral Sciences:
• demonstrate skills and behaviors which 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.

Institutional Learning Outcomes aligned with American Institutions Requirement:
• 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.
• 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.

Institutional Learning Outcomes aligned with Ethnic/Multicultural Studies:
• demonstrate skills and behaviors which 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.
The following is a correction to the Law Office Clerical Assistant certificate, see page 398 of the 2019-2020 Catalog. This 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.

Law Office Clerical Assistant Certificate

Major Code, 011604C01

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.

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 Opportunities

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.

Requirements for Certificate 15 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 312</td>
<td>Workplace Behavior and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 100.1</td>
<td>Keyboarding Skills: Beginning (1)</td>
<td>1</td>
</tr>
<tr>
<td>or BUSTEC 300.1</td>
<td>Keyboarding/Applications: Beginning (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 100.2</td>
<td>Keyboarding Skills: Intermediate (1)</td>
<td>1</td>
</tr>
<tr>
<td>or BUSTEC 300.2</td>
<td>Keyboarding/Applications: Document Formatting (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Business Technology Essentials</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>3</td>
</tr>
<tr>
<td>LA 300</td>
<td>Introduction to Law and the American Legal System</td>
<td>3</td>
</tr>
<tr>
<td>LA 350</td>
<td>Law Office Management</td>
<td>3</td>
</tr>
</tbody>
</table>
The information listed is a correction for the 2019-2020 Catalog

The following chart listings have corrections, see the 2019-2020 Catalog for more information.

AP (Advanced Placement) Exam Scores are listed on page 77 of the 2019-2020 Catalog.

- Use of AP Exam Scores for ARC course credit and General Education determined by ARC policy.
- Use of AP Exam Scores for IGETC determined by IGETC Policy.
- Use of AP Exam Scores for CSU GE Certification determined by CSU Policy.

<table>
<thead>
<tr>
<th>AP Exam</th>
<th>AMERICAN RIVER COLLEGE</th>
<th>IGETC CERTIFICATION</th>
<th>CSU GE CERTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scores</td>
<td>ARC Course</td>
<td>Sem units</td>
</tr>
<tr>
<td>U.S. Government and Politics</td>
<td>3,4,5</td>
<td>POLS 101</td>
<td>3</td>
</tr>
</tbody>
</table>

** Student needs to complete a course which covers California State and Local Government in order to complete CSU American Institutions graduation requirement.

CLEP (College Level Examination Program)* are listed on page 79 of the 2019-2020 Catalog.

- Use of CLEP Exam Scores for ARC course credit and General Education determined by ARC policy.
- Use of CLEP Exam Scores for CSU GE Certification determined by CSU Policy.

<table>
<thead>
<tr>
<th>CLEP Exam</th>
<th>AMERICAN RIVER COLLEGE</th>
<th>CSU and GE CERTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Passing Score</td>
<td>ARC Course</td>
</tr>
<tr>
<td>Human Growth &amp; Development</td>
<td>50</td>
<td>3</td>
</tr>
</tbody>
</table>

* The exams listed are only those exams for which ARC and/or the CSU system awards units of credit.
** If a student passes more than one CLEP examination in the same language other than English, only one examination may be applied to the baccalaureate. For each examination in a language other than English, a passing score of 50 is considered “Level I” and earns six units of baccalaureate credit; “Level II” credit is for the same exam but a higher score (as indicated), and earns additional units of credit and placement in Area C2 of GE Breadth as noted.
Certificates of Achievement:

Automotive Claims Estimator Certificate
Major Code, 011513C02
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.

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 Opportunities
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.

See losrios.edu/gainful-emp-info/gedt.php?major=011513C01 for Gainful Employment Disclosure.

Shielded Metal Arc Plate and Pipe Certificate
Major Code, 011579C02
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.

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

Requirements for Certificate 9 Units
WELD 300  Introduction to Welding ................................................................. 3
WELD 320  Shielded Metal Arc Welding – Structural ........................................ 3
WELD 322  Shielded Metal Arc Welding (Pipe) .................................................. 3

Each of following certificates are approved as a Certificate of Achievement and will be printed on a student’s transcript upon award, see page 7 of the 2019-2020 Catalog for more information.
The courses listed in this section are new and have been added to the Catalog 2019-2020

<table>
<thead>
<tr>
<th>Automotive Technology</th>
<th>Diesel/Clean Diesel Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 178 BAR Repair Technician Update UT05S 1 Unit</td>
<td>DCDT 191 Speed and Skill Development 3 Units</td>
</tr>
<tr>
<td>Hours: 18 hours LEC</td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
</tr>
<tr>
<td>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.</td>
<td>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.</td>
</tr>
</tbody>
</table>
This addendum to the 2019-2020 American River College Catalog contains important changes and additions. This addendum was updated after the 2019-2020 American River College Catalog went to press in March.

**Corrections**
2019-2020 College Catalog corrections

**Transfer Information**
Additional CSU-GE Breadth and IGETC requirements: (Catalog–p 71-74)

**Apprenticeship**
Added Certificate of Achievement: (Catalog–p 98)

**Automotive Technology**
Approved Certificate of Achievement: (Catalog–p 153)

**Diesel/Clean Diesel Technology**
Added Certificates of Achievement: (Catalog–p 223)

**English Department**
Final - Elementary Teacher Education A.A. for Transfer Degree: (Catalog–p 255)

**International Studies**
Added Global Studies A.A. for Transfer (AA-T) Degree: (Catalog–p 374)

**Social Justice Studies**
Added Social Justice Studies A.A. for Transfer (AA-T) Degrees: (Catalog–p 497, in Sociology)

**New Courses**
New courses added to the 2019-2020 College Catalog
B. Reading competency
may be met using one of the following:

1. Satisfactory completion of one of the following General Education Patterns: The Intersegmental General Education Transfer Curriculum; The California State University General Education Breadth Requirements OR Any local general education pattern offered in the Los Rios Community College District.
2. Proof of having met reading competency at a regionally accredited college in the U.S.
3. Possession an AA/AS or higher from a regionally accredited community college in the U.S.

Activity Leader Certificate
This certificate provides a comprehensive overview of the role and duties of an activity leader in a long-term care facility. The certificate meets State of California, Title 22 (Department of Social Service) requirements for activity leader certification.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• articulate the role and responsibilities of the activity leader in a long-term care facility
• demonstrate effective communication skills in interviewing long-term care residents
• analyze normal and disease process changes in hearing and speech and develop strategies for effective communication
• generate required documentation to comply with State and Federal regulations
• create activities which meet physical and emotional needs of residents in long-term care
• assess effects of institutionalization and possible impact on mental health and family relationships
• identify types of dementia and appropriate communication and behavior management strategies
• demonstrate effective problem solving, motivation, and communication skills involved in leadership of an activity program
• compare and contrast community services available and their relevancy to an activity program
• develop appropriate activities and monthly activity calendar to meet the needs of individual residents in long-term care

Career Opportunities
Activity Leader in long-term care, assisted living, and retirement facilities.

Requirements for Certificate 6.5 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 430</td>
<td>Activity Leader</td>
<td>6.5</td>
</tr>
</tbody>
</table>
CSU-GE Breadth and IGETC 2019-2020 Additions to the Catalog 2019-2020

For a complete listing of the California State University (CSU) General Education Pattern, see page 71.

For a complete listing of the UC and CSU Intersegmental General Education Transfer Curriculum (IGETC), see page 73-74.

CSU-GE Breadth 2019-2020 Additions
The following additions to the CSU-GE Breadth were received after the 2019-2020 catalog was printed.

<table>
<thead>
<tr>
<th>Course</th>
<th>CSU-GE Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 332 – Introduction to Ornithology</td>
<td>B2</td>
</tr>
<tr>
<td>NATR 306 – Introduction to Rangeland Ecology and Management</td>
<td></td>
</tr>
<tr>
<td>BIOL 332 – Introduction to Ornithology</td>
<td>B3 (Lab)</td>
</tr>
<tr>
<td>STAT 480 – Introduction to Probability and Statistics - Honors</td>
<td>B4 – Quantitative Reasoning</td>
</tr>
<tr>
<td>FREN 401 – Elementary French</td>
<td></td>
</tr>
<tr>
<td>FREN 402 – Elementary French</td>
<td></td>
</tr>
<tr>
<td>ITAL 401 – Elementary Italian</td>
<td></td>
</tr>
<tr>
<td>ITAL 402 – Elementary Italian</td>
<td></td>
</tr>
<tr>
<td>SPAN 401 – Elementary Spanish</td>
<td></td>
</tr>
<tr>
<td>ANTH 335 – Research Methods in Anthropology</td>
<td></td>
</tr>
<tr>
<td>HSER 330 – Issues of Diverse Populations (same as PSYC 365)</td>
<td>D – Social and Behavioral Sciences</td>
</tr>
<tr>
<td>PSYC 365 – Issues of Diverse Populations (same as HSER 330)</td>
<td></td>
</tr>
<tr>
<td>SJS 300 – Introduction to Social Justice Studies</td>
<td></td>
</tr>
<tr>
<td>SJS 310 – Introduction to LGBTQ Studies</td>
<td></td>
</tr>
</tbody>
</table>

IGETC 2019-2020 Additions
The following additions to IGETC were received after the 2019-2020 Catalog was printed.

<table>
<thead>
<tr>
<th>Course</th>
<th>IGETC Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 318 – History of American Art</td>
<td>3A</td>
</tr>
<tr>
<td>HUM 324 – Global Islam: Culture and Civilization</td>
<td>3B</td>
</tr>
<tr>
<td>ANTH 319 – Visual Anthropology: Introduction to Ethnographic Film</td>
<td>4</td>
</tr>
<tr>
<td>IS 301 – Introduction to Global Studies</td>
<td></td>
</tr>
<tr>
<td>IS 302 – Issues in Global Studies</td>
<td></td>
</tr>
<tr>
<td>BIOL 332 – Introduction to Ornithology</td>
<td>5B</td>
</tr>
<tr>
<td>BIOL 332 – Introduction to Ornithology</td>
<td>5C</td>
</tr>
</tbody>
</table>
APPRENTICESHIP

For a complete listing of programs and courses in Apprenticeship, see page 98.

American River College Catalog 2019-2020

APPRENTICESHIP

Area: Apprenticeship
Phone: (916) 484-8521
Counseling: (916) 484-8572

Area: Pre-Apprenticeship
Dean: Dr. Trish Caldwell
Phone: (916) 484-8354

A.A. Degree:
Carpenter Apprenticeship
Drywall/Lathing Apprenticeship
Electrical Apprenticeship
Ironworkers Apprenticeship
Sheet Metal Apprenticeship
Sheet Metal Service Technician Apprenticeship

Certificates:
Carpenters Apprenticeship
Drywall/Lathing Apprenticeship
Electrical Apprenticeship
Ironworkers Apprenticeship
Mill and Cabinet Maker Apprenticeship
Residential/Commercial Electrician Trainee
Sheet Metal Apprenticeship
Sheet Metal Residential
Sheet Metal Service Technician Apprenticeship
Pre-Apprenticeship

Requirements for Certificate 37 Units

For a complete listing of programs and courses in Apprenticeship, see page 98.

Mill and Cabinet Maker Apprenticeship Certificate

Major Code: 011410C01
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.

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 Opportunities

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.

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.

Requirements for Certificate

A minimum of 21 units from the following: 

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARPT 270</td>
<td>Mill Cabinet Safety and Tool Skills (1.5)</td>
</tr>
<tr>
<td>CARPT 271</td>
<td>The Mill Cabinet Apprentice and the Trade (1.5)</td>
</tr>
<tr>
<td>CARPT 272</td>
<td>Math for the Trades (2)</td>
</tr>
<tr>
<td>CARPT 273</td>
<td>Basic Cabinet Making (1.5)</td>
</tr>
<tr>
<td>CARPT 274</td>
<td>Basic Blueprint Reading Mill Cabinet (1.5)</td>
</tr>
<tr>
<td>CARPT 275</td>
<td>Machinery Maintenance for Mill Cabinet (1.5)</td>
</tr>
<tr>
<td>CARPT 276</td>
<td>Cabinet Hardware Installation (1.5)</td>
</tr>
<tr>
<td>CARPT 277</td>
<td>Sanding, Stains, and Finish Preparation (1.5)</td>
</tr>
<tr>
<td>CARPT 278</td>
<td>Advanced Machinery Operation (1.5)</td>
</tr>
<tr>
<td>CARPT 279</td>
<td>Advanced Blueprint Reading for Mill Cabinet (1.5)</td>
</tr>
<tr>
<td>CARPT 280</td>
<td>Advanced Cabinet Making (1.5)</td>
</tr>
<tr>
<td>CARPT 281</td>
<td>Veneers, Laminate, and Finishing (1.5)</td>
</tr>
<tr>
<td>CARPT 282</td>
<td>CAD Basics for Mill Cabinetry (1.5)</td>
</tr>
<tr>
<td>CARPT 283</td>
<td>Introduction to CNC (1.5)</td>
</tr>
<tr>
<td>CARPT 284</td>
<td>Solid Surface Material, Fabrication, and Installation (1.5)</td>
</tr>
<tr>
<td>CARPT 285</td>
<td>Advanced Project for Mill Cabinet (1.5)</td>
</tr>
</tbody>
</table>

A minimum of 16 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARPT 200</td>
<td>Work Experience in Carpenters Apprenticeship (1-4)</td>
</tr>
</tbody>
</table>

A minimum of 37 units is required for this certificate.
Small Engines Certificate
Major Code: 011034C01
This certificate prepares students for employment in the automotive industry, specializing in small engines.

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.

Requirements for Certificate 12 Units
AT 100    Technical Basics for the Automotive Professional.......................... 3
AT 180    Automotive Data Acquisition .................................................. 3
AT 181    Snap-On Multimeter Basics ...................................................... 1
AT 301    Small Gas Engines, Outdoor Power Equipment (4) ..................... 4
or HORT 330   Small Gas Engines, Outdoor Power Equipment (4) ..... 1
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 (1 - 4)
The certificate programs listed here are additions to the Catalog 2019-2020

For a complete listing of programs and courses in Diesel/Clean Diesel Technology, see page 223.

<table>
<thead>
<tr>
<th>Area:</th>
<th>Technical Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean:</td>
<td>Dr. Trish Caldwell</td>
</tr>
<tr>
<td>Phone:</td>
<td>(916) 484-8354</td>
</tr>
<tr>
<td>Counseling:</td>
<td>(916) 484-8572</td>
</tr>
</tbody>
</table>

| Degree: | A.S. - Diesel Technology |
| Certificates: | Diesel Technology |
| Clean Diesel Technology |
| Clean Diesel Hybrid Technology |
| Clean Diesel Management Systems |
| Diesel Engine Technology |
| Light Duty Diesel Truck |
| Preventive Maintenance |

**Diesel Engine Technology Certificate**
Major Code: 011281C01
This certificate is designed for students seeking employment in the diesel industry specializing in diesel engine repair.

**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 Opportunities**
The diesel industry is growing and is in need of highly trained/skilled technicians that can step into the workforce.

**Requirements for Certificate**
20 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCDT 100</td>
<td>Diesel Technology Basics</td>
<td>4</td>
</tr>
<tr>
<td>DCDT 101</td>
<td>Diesel Preventive Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>DCDT 110</td>
<td>Diesel Engine Repair</td>
<td>4</td>
</tr>
<tr>
<td>DCDT 111</td>
<td>Clean Natural Gas Engine Repair</td>
<td>4</td>
</tr>
<tr>
<td>DCDT 162</td>
<td>Clean Diesel Software Support</td>
<td>4</td>
</tr>
</tbody>
</table>

**Light Duty Diesel Truck Certificate**
Major Code: 011282C01
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.

**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 Opportunities**
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.

**Requirements for Certificate**
23 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCDT 162</td>
<td>Clean Diesel Software Support</td>
<td>4</td>
</tr>
<tr>
<td>DCDT 163</td>
<td>Industrial Software and Systems</td>
<td>4</td>
</tr>
<tr>
<td>DCDT 200</td>
<td>Light Duty Diesel/Green Diesel Technology</td>
<td>4</td>
</tr>
<tr>
<td>DCDT 201</td>
<td>Advanced Light Duty Diesel/Green Diesel Technology</td>
<td>4</td>
</tr>
<tr>
<td>DCDT 280</td>
<td>Professionalism in the Industry</td>
<td>3</td>
</tr>
<tr>
<td>DCDT 281</td>
<td>Diesel Shop Operations</td>
<td>4</td>
</tr>
</tbody>
</table>
For a complete listing of programs and courses in English, see page 255.

<table>
<thead>
<tr>
<th>Area:</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree:</td>
<td>A.A. for Transfer - English</td>
</tr>
<tr>
<td>Dean:</td>
<td>Douglas Herndon</td>
</tr>
<tr>
<td>Phone:</td>
<td>(916) 484-8101</td>
</tr>
<tr>
<td>Counseling:</td>
<td>(916) 484-8572</td>
</tr>
</tbody>
</table>

**Elementary Teacher Education A.A. for Transfer Degree**

Major Code, CSU GE: 011157A01

The Associate in Elementary Teacher Education for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of Elementary Teacher Education. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.

The Associate in Arts degree in Elementary Teacher Education for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Arts degree in Elementary Teacher Education for Transfer (AA-T) may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

- apply the scientific method using inquiry, data collection, quantitative reasoning, and basic mathematical concepts to analyze results
- assess teaching practices and learning conditions through application of child development theories
- evaluate attitudes, actions, and behaviors indicative of a professional educator
- apply analytical reading and writing, research, and critical thinking essential for completing assigned tasks
- explain relationships and interactions between humans and the earth
- apply knowledge of world history and cultures to identify the values of a culture and work with others of diverse cultures
- analyze statistical data
- present information effectively to an intended audience
- compare and contrast various forms and styles of music, artworks, and theatrical performances

**Career Opportunities**

Public or private instructional assistant or classroom aide, grades K-8; private tutor; publishing and textbook salesperson; curriculum and test developer; teacher, grades K-12 with additional education.

**Requirements for Degree** 56-57 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 310</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td></td>
</tr>
<tr>
<td>ENGED 324</td>
<td>Introduction to Elementary Teaching with Field Experience (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ECE 350</td>
<td>Introduction to Elementary Teaching with Field Experience (3)</td>
<td>3</td>
</tr>
<tr>
<td>ENGW 300</td>
<td>College Composition (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGW 480</td>
<td>Honors College Composition (3)</td>
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</tr>
<tr>
<td>ENGW 301</td>
<td>College Composition and Literature (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGW 303</td>
<td>Argumentative Writing and Critical Thinking</td>
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</tr>
<tr>
<td>or ENGW 481</td>
<td>Honors College Composition and Literature (3)</td>
<td></td>
</tr>
<tr>
<td>ENGW 302</td>
<td>Advanced Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 320</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 305</td>
<td>Earth Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 306</td>
<td>Earth Science Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HIST 307</td>
<td>History of World Civilizations to 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 308</td>
<td>History of World Civilizations, 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>HIST 310</td>
<td>History of the United States (3)</td>
<td>3</td>
</tr>
<tr>
<td>or HIST 483</td>
<td>History of the United States – Honors (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 311</td>
<td>Mathematical Concepts for Elementary School Teachers - Number Systems</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 312</td>
<td>Conceptual Physics Laboratory</td>
<td>1</td>
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<tr>
<td>POLS 301</td>
<td>Introduction to Government: United States (3)</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 481</td>
<td>Introduction to Government: United States – Honors (3)</td>
<td></td>
</tr>
<tr>
<td>SPEECH 301</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:

- ARTH 300 Introduction to Art (3)
- MUFHL 300 Introduction to Music (3)
- TA 300 Introduction to the Theatre (3)

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

Major Code, CSU GE: 011235A01
Mayor Code, IGETC: 011235A02

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.

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

Requirements for Degree  21 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 301</td>
<td>Introduction to Global Studies</td>
<td>3</td>
</tr>
<tr>
<td>IS 302</td>
<td>Issues in Global Studies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>A minimum of 15 units from the following:</strong></td>
<td></td>
</tr>
<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>HIST 308</td>
<td>History of World Civilizations, 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 304</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>GEGY 300</td>
<td>Physical Geography: Exploring Earth's Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEGY 310</td>
<td>Human Geography: Exploring Earth's Cultural Landscapes</td>
<td>3</td>
</tr>
<tr>
<td>GEGY 320</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

HUMANITIES

| DEAF 314 | American Sign Language III                  | 4     |
| DEAF 316 | American Sign Language IV                   | 4     |
| ENGL 340 | World Literature I                          | 3     |
| ENGL 341 | World Literature II                         | 3     |
| FREN 411 | Intermediate French                         | 4     |
| FREN 412 | Intermediate French                         | 4     |
| GERM 411 | Intermediate German                         | 4     |
| GERM 412 | Intermediate German                         | 4     |
| ITAL 411 | Intermediate Italian                        | 4     |
| ITAL 412 | Intermediate Italian                        | 4     |
| SPAN 411 | Intermediate Spanish                        | 4     |
| SPAN 412 | Intermediate Spanish                        | 4     |

POLITICAL SCIENCE

| ENGL 392 | Comparative Politics                       | 3     |
| ENGL 310 | Introduction to International Relations     | 3     |

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

A.A. for Transfer Degree

Major Code, CSU GE: 010710A01
Major Code, IGETC: 010710A02

The Associate in Arts in Social Justice Studies: Race and Ethnicity for 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. The Associate in Arts in Social Justice Studies: Race and Ethnicity for Transfer (AA-T) degree may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

The Associate in Arts in Social Justice Studies: Race and Ethnicity for Transfer (AA-T) degree provides a curricular track for students who wish to transfer into a variety of CSU majors related to race and ethnicity, such as Ethnic Studies, Chicano Studies, or African American Studies. This Transfer Model Curriculum is an “Area of Emphasis” (AOE), which allows for students to transfer into more than one CSU major related to Race and Ethnicity. Students interested in transferring to a CSU campus to pursue a bachelor’s degree in an Area of Emphasis should meet with a counselor to confirm the courses required for lower division preparation in the major. This degree exposes students to the core principles and practices of the Social Justice Studies field in order to build a foundation for their future personal, academic, or vocational paths.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• define and analyze power and oppression to better understand how they operate at the individual, cultural, and institutional levels.

• 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.

• explain how intersectional formations of social identity reflecting various levels of power and privilege impact social justice at the individual, cultural, and institutional levels.

• recognize the historical origins and similarities 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 Opportunities

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, or any social science, politics, business, education, or public policy.

Requirements for Degree

18 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJS 300</td>
<td>Introduction to Social Justice Studies</td>
<td>3</td>
</tr>
<tr>
<td>SJS 310</td>
<td>Introduction to LGBTQ Studies</td>
<td>3</td>
</tr>
<tr>
<td>SOC 320</td>
<td>Minorities in America</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 9 units from the following:

Select three courses from at least two of the following areas:

Area 1: History or Government

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 320</td>
<td>History of the United States: African-American Emphasis (3)</td>
</tr>
<tr>
<td>HIST 323</td>
<td>History of the United States: The American Indian Experience (3)</td>
</tr>
<tr>
<td>HIST 325</td>
<td>History of Asian/Pacific Americans (3)</td>
</tr>
<tr>
<td>HIST 327</td>
<td>History of the Chicano/Mexican American (3)</td>
</tr>
</tbody>
</table>

Area 2: Arts and Humanities

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 335</td>
<td>Latino, Mexican-American, and Chicano Literature (3)</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Native American Literature (3)</td>
</tr>
<tr>
<td>HUM 320</td>
<td>Asian Humanities (3)</td>
</tr>
</tbody>
</table>

Area 3: Social Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 334</td>
<td>Native Peoples of North America (3)</td>
</tr>
<tr>
<td>JOUR 320</td>
<td>Race and Gender in the Media (3)</td>
</tr>
<tr>
<td>SOC 342</td>
<td>Gender Relations in American Society (3)</td>
</tr>
</tbody>
</table>

(Continued on Next Page)
(Social Justice Studies: Race and Ethnicity Degree Continued)

Area 4: Quantitative Reasoning
- PSYC 330 Introduction to Probability and Statistics (4)
- or STAT 480 Introduction to Probability and Statistics - Honors (4)

Area 5: Major Preparation
- PSYC 300 General Principles (3)
- or PSYC 480 Honors General Principles (3)
- SOC 300 Introductory Sociology (3)
- or SOC 480 Introductory Sociology - Honors (3)

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

Social Justice Studies: Women, Gender, and LGBTQ Studies A.A. for Transfer Degree

Major Code, CSU GE: 010711A01
Major Code, IGETC: 010711A02
The Associate in Arts in Social Justice Studies: Women, Gender, and LGBTQ Studies for 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. The Associate in Arts in Social Justice Studies: Women, Gender, and LGBTQ Studies for Transfer (AA-T) degree may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

The Associate in Arts in Social Justice Studies: Women, Gender, LGBTQ Studies for Transfer (AA-T) degree provides a curricular track for students who wish to transfer into a variety of CSU majors related to Women, Gender, LGBTQ Studies, such as Women’s Studies, Gender Studies, or Queer Studies. This Transfer Model Curriculum is an “Area of Emphasis” (AOE), which allows for students to transfer into more than one CSU major related to Women, Gender, LGBTQ Studies. Students interested in transferring to a CSU campus to pursue a bachelor’s degree in an Area of Emphasis should meet with a counselor to confirm the courses required for lower division preparation in the major. This degree exposes students to the core principles and practices of the Social Justice Studies field in order to build a foundation for their future personal, academic, or vocational paths.

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, and institutional levels.
- explain how intersectional formations of social identity reflecting various levels of power and privilege impact social justice at the individual, cultural, and institutional levels.
- recognize the historical origins and similarities 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 Opportunities
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, or any social science, politics, business, education, or public policy.

Requirements for Degree 18 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STS 300</td>
<td>Introduction to Social Justice Studies</td>
<td>3</td>
</tr>
<tr>
<td>STS 310</td>
<td>Introduction to LGBTQ Studies</td>
<td>3</td>
</tr>
<tr>
<td>SOC 342</td>
<td>Gender Relations in American Society</td>
<td>3</td>
</tr>
</tbody>
</table>

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
- ENGL 360 | Women in Literature (3)
- ENGL 365 | Introduction to Gay, Lesbian, Bisexual and Transgender Literature (3)

Area 3: Social Sciences
- ANTH 300 | Anthropology of Sex, Sexuality and Gender (3)
- PSYC 356 | Human Sexuality (3)
- PSYC 361 | Psychology of Women in a Multicultural Society (3)
- SOC 320 | Minorities in America (3)

Area 4: Quantitative Reasoning
- PSYC 330 | Introduction to Probability and Statistics (4)
- or STAT 480 | Introduction to Probability and Statistics - Honors (4)

Area 5: Major Preparation
- HIST 308 | History of World Civilizations, 1500 to Present (3)
- PSYC 300 | General Principles (3)
- or PSYC 480 | Honors General Principles (3)
- SOC 300 | Introductory Sociology (3)
- or SOC 480 | Introductory Sociology - Honors (3)

Associate in Arts for Transfer Degree Requirements: 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) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
### Computer Information Science - Security

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 330</td>
<td>Implementing Internet Security and Firewalls</td>
<td>3</td>
</tr>
</tbody>
</table>

*Course Transferable to CSU*

*Hours: 45 hours LEC; 27 hours LAB*

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. Also covered is the configuration of network firewalls, and allowing access to key services while maintaining security. This course is not open to students who have completed CISS 325.

### Diesel/Clean Diesel Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCDT 280</td>
<td>Professionalism in the Industry</td>
<td>3</td>
</tr>
</tbody>
</table>

*Hours: 45 hours LEC; 27 hours LAB*

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>DCDT 1000</td>
<td>ASE Diesel Engines (T2)</td>
<td>.25</td>
</tr>
<tr>
<td>DCDT 1001</td>
<td>ASE Drive Train (T3)</td>
<td>.25</td>
</tr>
<tr>
<td>DCDT 1002</td>
<td>ASE Brakes (T4)</td>
<td>.25</td>
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<tr>
<td>DCDT 1003</td>
<td>ASE Suspension &amp; Steering (T5)</td>
<td>.25</td>
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<table>
<thead>
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<th>Course Title</th>
<th>Units</th>
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</thead>
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<tr>
<td>DCDT 1004</td>
<td>ASE Electrical/Electronic Systems (T6)</td>
<td>.25</td>
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<tr>
<td>DCDT 1005</td>
<td>ASE Industrial Refrigeration Systems (T7)</td>
<td>.25</td>
</tr>
<tr>
<td>DCDT 1006</td>
<td>ASE Preventive Maintenance Inspection (T8)</td>
<td>.25</td>
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<tr>
<td>DCDT 1007</td>
<td>ASE Light Vehicle Diesel Engines (A9)</td>
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### Elevator

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ELEVA 100</td>
<td>Elevator New Hire Program</td>
<td>4</td>
</tr>
</tbody>
</table>

*Hours: 72 hours LEC*

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEVA 101</td>
<td>Elevator Trade Skills</td>
<td>3</td>
</tr>
</tbody>
</table>

*Hours: 45 hours LEC; 27 hours LAB*

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.
NEW COURSES

American River College Catalog 2019-2020

ELEVA 102  Elevator Hoistway Structures  3 Units
Hours: 45 hours LEC; 27 hours LAB
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. The course also covers installation of elevator hoistway, pit, and machine room structures.

ELEVA 103  Elevator Electrical Fundamentals  4 Units
Hours: 72 hours LEC
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  3 Units
Hours: 45 hours LEC; 27 hours LAB
This course covers 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  4 Units
Hours: 72 hours LEC
This course takes the apprentice from a simple platform and bare hoistway to the piping, wiring, and control systems. 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  4 Units
Hours: 72 hours LEC
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  3 Units
Hours: 45 hours LEC; 27 hours LAB
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  4 Units
Hours: 72 hours LEC
This course covers hydraulic elevators and non-traditional types of elevators. It also covers escalators, residential, and rack and pinion systems.

FITNS 304  Cardio Circuit  1 Unit
Course Transferable to CSU
Hours: 54 hours LAB
This course is designed as a cardio circuit form of fitness training. It combines calorie 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 324  Mat Pilates I  1 Unit
Prerequisite: FITNS 324 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LAB
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 326  Mat Pilates II  1 Unit
Prerequisite: FITNS 304 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LAB
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 348  High-Intensity Interval Training  1 Unit
Course Transferable to CSU
Hours: 54 hours LAB
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 393  Yoga II  1 Unit
Prerequisite: FITNS 392 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LAB
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.

LA 336  Immigration Law  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course is an elective in the Paralegal Studies program and is designed to prepare students for work in an immigration law setting. Students will learn about the Justice Department, the Labor Department, and the State Department, and how these agencies administer immigration and naturalization laws.

LA 365  Legal Clinic  3 Units
Prerequisite: LA 300, 310, 320, and 32 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a study of the activities of a legal clinic, including conducting client interviews, participating in legal consultations, performing legal research, and carrying out tasks needed in clinic operations, all under the direct supervision of clinic attorneys. This course also covers research, examinations, and conduct according to the Professional Rules of Responsibility and Ethics.
### Mathematics

**MATHS 45** Support for Business Mathematics  
**2 Units**  
Corequisite: MATH 340 or 342  
Hours: 36 hours LEC  
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 340) and Modern Business Mathematics (MATH 342). Students taking this course must be concurrently enrolled in the corresponding section of MATH 340 or 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 72** Support for College Algebra for Calculus  
**2 Units**  
Corequisite: MATH 372  
Hours: 36 hours LEC  
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). Students taking this course must be concurrently enrolled in the corresponding section of MATH 372. 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 for College Algebra for Trigonometry for Calculus  
**2 Units**  
Corequisite: MATH 373  
Hours: 36 hours LEC  
This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in Trigonometry for Calculus (MATH 373). Students taking this course must be concurrently enrolled in the corresponding section 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 assignments in the corequisite course. This course is graded Pass/No Pass.

**MATHS 95** Support for Introduction to Mathematical Ideas  
**2 Units**  
Corequisite: MATH 300  
Hours: 36 hours LEC  
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). Students taking this course must be concurrently enrolled in the corresponding section of MATH 300. 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.

### Instrumental/Voice Instruction

**MUIVI 411** Applied Music-Group  
**1 Unit**  
Corequisite: 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.  
Enrollment Limitation: Performance assessment  
Hours: 18 hours LEC  
This course focuses on the development of individual performance skills and repertoire. It includes instrumental, composition, or vocal instruction in a group setting. It also includes solo performance, recital participation, masterclasses, and a final juried performance.

### Statistics

**STAT 10** Support for Introduction to Probability and Statistics  
**2 Units**  
Hours: 36 hours LEC  
This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in STAT 300 (Introduction to Probability and Statistics). Students taking this course must be concurrently enrolled in the corresponding section of STAT 300. 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.
The information in this catalog was accurate as of March 2019 and does not reflect changes that may have occurred since that time. It is the policy of the District to implement policies to guarantee that no qualified student or prospective student or any person having an educational relationship with the District shall be unlawfully discriminated against, harassed, or excluded from any benefits, activities, or programs on the grounds of one or more of the following actual or perceived characteristics, or due to the association with a person or group with one or more of the following actual or perceived characteristics: ethnic group identification, race, color, sex, gender, gender identity, gender expression, pregnancy or childbirth-related condition, sexual orientation, sexual identity, religion or religious creed, age (over forty), national origin, ancestry, physical or mental disability, medical condition, political affiliation or belief, military and veteran status, marital status, or conversing in a language other than English. However, students shall be required to speak English when the use of English is necessary for educational or communication purposes.
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Thank you to the numerous individuals around campus whose efforts made this catalog happen.

Welcome to American River College

It is my great honor to offer an official and friendly welcome to you on behalf of American River College! I wanted to start by sharing ARC’s new vision, mission, and commitment to social justice – they are an integral part of all we do.

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

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 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.

We want all students to feel welcome at American River College. No matter what your career, academic, and personal goals happen to be, we want you to be a part of our community.

This college catalog is a resource for you as an ARC student. You will find key information about:

- Academic programs, including our associate degrees and certificates
- Support services, all designed to help you succeed
- Your rights and responsibilities as a student

Please keep in mind that policies and regulations are subject to change. Many of these changes are dictated by the State of California or federal agencies. This catalog captures the latest information as of March 2019, but changes happen on a regular basis. For updated information, be sure to visit the college website at www.arc.losrios.edu.

If there are significant changes – such as new programs or important regulations – American River College will publish a catalog addendum. If addenda are published, they will typically appear in June and November. Please visit our website to see if an addendum has been published for this catalog.

I wish you nothing but success in your future journeys. Thank you!

Thomas G. Greene
President, American River College
ARC Administration

Vice Presidents

Administrative Services ........................................................................................................... Kuldeep Kaur
Instruction ......................................................................................................................... Dr. Lisa Lawrenson
Student Services .................................................................................................................. Dr. Jeffrey Stephenson

Associate Vice Presidents

Instruction & Curriculum ........................................................................................................ Kate Jaques
Instruction & Learning Resources .......................................................................................... Dr. Kale Braden
Student Services .................................................................................................................. Chad Funk
Workforce Development ....................................................................................................... Dr. Frank Kobayashi

Deans

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Business & Computer Science .............................................................................................. Kirsten Corbin
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Counseling & Transfer Services ............................................................................................ Sonia Ortiz-Mercado
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English ................................................................................................................................... Douglas Herndon
Equity Programs & Pathways ............................................................................................... Dr. Joshua Moon Johnson
Fine & Applied Arts .............................................................................................................. Angela Milano
Health & Education ............................................................................................................... Jan DeLapp
Humanities ............................................................................................................................. Diana Hicks
Kinesiology & Athletics .......................................................................................................... Dr. Derrick Booth
Mathematics ......................................................................................................................... Gary Hartley (Interim)
McClellan/Public Safety Center ............................................................................................ Steven Segura
Natomas Education Center ..................................................................................................... Dr. Roger A. Davidson
Planning, Research & Technology ........................................................................................ Dr. Adam Karp
Science and Engineering ....................................................................................................... Dr. Rina Roy
Support Programs .................................................................................................................. Kolleen Ostgaard
Technical Education .............................................................................................................. Dr. Trish Caldwell

Other Administrative Staff

Administrative Services Director ............................................................................................. Cheryl Sears
American Apprenticeship Initiative Grant Project Director ....................................................... Cynthia Sommer
Bookstore Manager ............................................................................................................... TBA
CA Apprenticeship Initiative Grant Director ............................................................................ Josef Preciado
Director of Donor Relations ................................................................................................... Kirsten DuBray
Communication & Public Information Officer ........................................................................ Scott Crow
Nursing Program Director ........................................................................................................ Mary Ellen Kraft (Interim)
TRIO (SSS) Grant Programs Director ..................................................................................... Tanya Anderson
TRIO, Educational Talent Search Project Director ..................................................................... Diana Garcia
TRIO, Upward Bound Program Director ................................................................................ Maricela Juarez
2019-20 Academic Calendar

Summer Session 2019
Summber Classes Begin (1st 4-weeks, 1st 6-weeks, and 1st 8-weeks) June 10
Independence Day Holiday (No Classes, Offices Closed) July 4
End of Summer Session August 8
Summer Grades Available Online (Grades will not be mailed) August 12

Fall Semester 2019
Fall Classes Begin (Full Semester, 1st 5-weeks and 1st 8-weeks) August 24
Saturday and Sunday Classes Begin August 24, 25
Labor Day Holiday (No Classes, Offices Closed) September 2
Veterans Day Holiday (No Classes, Offices Closed) November 11
Last Day to Drop Full Semester Classes November 19
Thanksgiving Recess (No Classes, Offices Closed) November 28-December 1
Finals December 13-19
End of Fall Semester December 19
Winter Recess December 20, 2019-January 1, 2020
Fall Grades Available Online (Grades will not be mailed) 1st week of January

Spring Semester 2020
Spring Classes Begin (Full Semester, 1st 5-weeks and 1st 8-weeks) January 18
Saturday and Sunday Classes Begin January 18, 19
Holiday - Dr. Martin Luther King, Jr. Day (No Classes, Offices Closed) January 20
Presidents Day Holidays (No Classes, Offices Closed) February 14 & 17
Spring Recess (No Classes) April 6-12
Last Day to Drop Full Semester Classes April 19
Finals May 14-20
End of Spring Semester (Commencement) May 20
Memorial Day Holiday (No Classes, Offices Closed) May 25
Spring Grades Available Online (Grades will not be mailed) Last week of May

Note: Online (eServices) enrollment is available every day, including holidays, 7:00 a.m. to 11:30 p.m. for registration and adding/dropping classes, except when down due to maintenance.
In addition to the college’s main campus, college-credit classes are taught at several off-campus locations in the northern and northeastern areas of Sacramento County. Classes at the Mather, McClellan, and Natomas Centers offer the same credit as those taught on the main campus, and students can complete most degree requirements as well. Some centers also offer counseling, assessment, and other services. Updated maps can be found online at www.arc.losrios.edu

Main Campus
4700 College Oak Drive, Sacramento, CA 95814
(916) 484-8011

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

McClellan Center & Sacramento Regional Public Safety Training Center
5146 Arnold Avenue, Bldg. 8, McClellan, CA 95652
(916) 570-5000

Mather Center
10150 Missile Way, Mather, CA 95655
★ Auto Collision: (916) 255-0480
◇ Diesel Technology: (916) 484-8354
American River College

Who We Are
Founded in 1955, American River College is a public community college that offers students the option of working toward a degree, certificate or transfer to a university or other institution. American River College is part of the Los Rios Community College District, one of the nation’s most respected learning institutions and the second-largest community college district in California.

American River College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges [10 Commercial Boulevard, Suite 204, Novato, CA 94949, (415) 506-0234], an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education.

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

History
American River College opened its doors as California’s 61st public junior college in 1955. Its history, however, dates back to February 28, 1942, when Grant Union Junior College was established in Del Paso Heights to train civilian personnel for national service during World War II. In 1945 the name was changed to Grant Technical College.

In June 1954, voters agreed to the establishment of a new junior college district, followed by the approval of a $3 million bond issue in November of that year. Grant Technical College ceased operation after 13 years and American River Junior College was born in the fall of 1955. For the first three years, classes were offered at the former Grant Technical College campus. However, soon after its first semester of classes had begun, the college purchased a 153-acre site known as the Cameron Ranch on which to construct a permanent campus.

By October of 1958, when official dedication ceremonies were held, eight new building complexes had been erected among the magnificent oaks native to the area. Since that dedication the stately oak has been adopted as the official college symbol (including the campus seal).

In 1965 the college became a part of the Los Rios Community College District and became American River College. Today, along with Sacramento City College, Cosumnes River College, and Folsom Lake College, ARC is directed by a board of trustees elected by voters residing in the district.

Campus facilities development in the 1960s included Davies Hall, a three-story classroom and faculty office building, and facilities for chemistry, physics, engineering, women’s physical education, and technical education studies. The campus grew rapidly in the 1970s, including a three-story library, a Horticulture complex, a child care center and counseling center.

The 1980s marked the completion of the Rose Marks open-air pavilion and a new bookstore (remodeled in the 1990s). Improvements since then include major remodeling of laboratories, a new larger child care center, and new facilities for Disabled Student Programs & Services, and instructional technology. In 2002, voters approved a multimillion bond measure that funded new construction and renovation of classrooms and laboratories, the Learning Resource Center, Health & Education area, Kinesiology & Athletics area, Performing Arts, and the Natomas Educational Center. Another bond measure was passed in 2008, providing funds for the renovation and expansion of the Library and construction of a new Student Center (completed in 2013), as well as other projects in the near future.

With approximately 30,000 students, ARC is among the largest community colleges in the state. Looked upon as a leader in innovative programs and services, ARC transfers many students to UC Davis and CSU Sacramento. Today, more than five decades after its founding, American River College continues its leadership role in higher education, as set down in its statement of vision, philosophy and mission.

Vision, Mission, Commitment and Values
Our Vision
Transform the future of all students and our community through inclusive, equitable education.

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 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.

Our Values (listed in alphabetical order)

Access
Students are the reason we are here, and their education is our primary responsibility. We recognize that residents of the region should have an opportunity to enroll and be successful in college.

Benefit of Education
Individuals who have the opportunities to (1) develop their abilities, (2) engage in critical and creative thinking, (3) participate in lifelong learning, (4) succeed in a competitive global work environment, and (5) exhibit responsible citizenship benefit society as well as themselves.

Communication
Achieving the ARC mission and vision requires effective communication within the college and with the communities served by the college; civil and honest, this communication should promote mutual respect and trust.

Community Development
The college’s curriculum in the arts, humanities, sciences, social sciences, mathematics and career and technical education and the college’s co-curricular programs and support services benefit the community by promoting cognitive development, intellectual growth, physical well-being, student volunteerism, and economic progress.

Diversity
Because ARC is a community valuing the varied perspectives and experiences of students, faculty and staff, the college offers educational opportunities for enhancing cultural awareness, supporting diversity, and promoting the free exchange of ideas and the development of a culturally competent and inclusive college community.

Employees
As our most valued resource, faculty and staff members are entitled to a safe, secure and supportive work environment and a culture that recognizes excellence, encourages meaningful involvement in interest-based, decision-making process; and provides opportunities for professional development, service and leadership.

Excellence
Excellence is essential for accomplishing ARC’s mission to help students identify their educational goals and achieve successful learning and for supporting the college’s employees and serving ARC’s community and region.

Fiscal Responsibility
Observing fiscally sound, efficient, transparent, and accountable practices is essential to achieving our mission.

Innovation and Risk Taking
Creativity, flexibility and responsible risk-taking support achievement of the college’s mission.

Leadership
Responsible leadership and service by faculty, staff and students is actively cultivated so the college can achieve improvement in student learning and support positive contributions to the community.

Research and Evaluation
Ongoing, data-based research and evaluation contribute to achieving student learning outcomes and the assurance that all operations support the vision, mission and values of the college.

Student Learning Outcomes
Student success results from identifying, assessing and improving student learning outcomes and allocating resources that support effective, innovative, and flexible learning opportunities.

Sustainability
Recognizing its leadership role in the stewardship of natural resources, ARC is committed to reducing its negative impact on the environment.

Technology
Responsible and effective use of technology supports the college’s mission and helps students develop the skills necessary for being successful in the contemporary environment.
**Institutional Student Learning Outcomes**

Upon achievement of their intended educational goal (degree, certificate, or set of courses) at American River College, students will be able to:

- Demonstrate personal and professional readiness for career and/or academic advancement.
- Demonstrate skills and behaviors which 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.
- 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.

**Off-Campus Centers**

In addition to its main campus on College Oak Drive, American River College also has centers in Mather, McClellan, and Natomas.

The **Mather Center** houses the college’s Diesel Technology and Automotive Collision Technology programs.

The **McClellan Center** offers a variety of general education classes in addition to counseling and financial aid services for students. The McClellan Center also includes the Sacramento Regional Public Safety Training Center, which 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.

The **Natomas Center** offers many general education and transfer courses. The center also offers counseling and financial aid services for students, as well as the Math Multimedia Learning Center (MMLC) and Reading Across the Disciplines (RAD) and Writing Across the Curriculum (WAC) programs. In addition, the Natomas Center is home to Accelerated College Education (ACE), a program designed for working students. The center also has partnerships with nearby Inderkum High School and the Sacramento Public Library’s North Natomas branch.
Degrees and Certificates

Students come to American River College to pursue many different educational goals. American River College offers associate degrees, certificates, and/or transfer to a four-year institution.

Associate Degree Programs

American River College offers Associate in Arts (A.A.), Associate in Science (A.S.), Associate in Arts for Transfer (AA-T) and Associate in Science for Transfer (AS-T) degrees. Students receiving an A.A. or A.S. degree must complete all of the required courses for a major (from 18 to approximately 30 plus units), meet competency requirements, fulfill general education requirements, and complete sufficient electives to meet a minimum of 60 degree applicable units. Students receiving an AA-T or AS-T degree must complete all of the required courses for a major (earning a “C” or better in these courses), complete either the CSU General Education Certification pattern or the Intersegmental General Education Transfer Curriculum (CSU option), and 60 CSU transferable units. At least 12 of the 60 units must be earned at American River College. All students wishing to obtain a degree from American River College need to petition early in their last semester for graduation.

Certificates of Achievement

The Certificate of Achievement certifies that a student has completed all required courses for a major and is prepared to enter the career designated on their certificate. Certificate programs have been developed with the assistance of business and industrial advisory committees to provide vocational training for students who are not necessarily seeking a college degree. A grade of “C” or better is required for each course leading to a Certificate of Achievement. A minimum of 12 units must be completed at American River College. Students wishing to obtain a Certificate of Achievement from American River College need to obtain a Petition for Certificate from the Counseling office and submit it to Enrollment Services by the deadlines noted on the college’s website at arc.lorrios.edu.

As required by federal law, American River College provides gainful employment disclosure information for eligible certificate programs. Go to the specific certificate programs to find out how to access gainful employment disclosure information.

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Accounting
 Degrees: A.A. - Accounting
 Certificates: Accounting Clerk

Administration of Justice
 Degrees: A.S. - Administration of Justice
 A.S. - Administration of Justice

Anthropology
 Degrees: A.S. - Anthropology
 A.A. for Transfer - Anthropology

Apprenticeship
 Degrees: A.A. - Carpenter Apprenticeship
 A.A. - Drywall/Lathing Apprenticeship
 A.A. - Electrical Apprenticeship
 A.A. - Ironworker Apprenticeship
 A.A. - Sheet Metal Apprenticeship
 A.A. - Sheet Metal Service Technician Apprenticeship

Certificates: Carpenters Apprenticeship
 Drywall/Lathing Apprenticeship
 Electrical Apprenticeship
 Ironworker Apprenticeship
 Pre-Apprenticeship
 Residential/Commercial Electrician Trainee
 Sheet Metal Apprenticeship
 Sheet Metal Residential
 Sheet Metal Service Technician Apprenticeship

Art
 Degrees: A.A. - Art
 A.A. for Transfer - Art History
 A.A. for Transfer - Studio Art
 Certificate: Freelance Photography
 Graphic Design Management

Art New Media
 Degrees: A.A. - Art New Media
 A.A. - Technical Communications
 Certificate: ARINVM: Character Design
 ARINVM: Commercial Illustration
 Illustration
 3D Animation
 3D Modeling and Texturing
 3D Rigging Technical Director
 3D Technical Director
 Graphic Design: Intern Artist
 Graphic Design: Junior Artist
 Graphic Design: Production Artist
 Web Design
 Technical Communications

ASL- English Interpreter Preparation
 Degree: A.A. - ASL-English Interpreter Preparation Program
 Certificate: ASL-English Interpreter Preparation Program

Automotive Technology
 Degrees: A.S. - Automotive Analysis
 A.S. - Automotive Component Service Technician
 A.S. - Automotive Technology
 Certificate: Air Conditioning Service
 Alternative Fuels and Green Vehicle Technology
 Automotive Analysis
 Automotive Component Service Technician
 Automotive Emissions Inspection and Repair Technician
 Automotive Service Technician
 Automotive Technology
 Extreme Tuner
 Parts and Service
 Transmission Service
 Undercar Service

Biology & Biotechnology
 Degrees: A.S. - Biotechnology
 A.S. - General Science
 A.S. for Transfer - Biology
 Certificate: Biotechnology

Business
 Degrees: A.S. for Transfer - Business Administration
 A.A. - General Business
 A.A. - Small Business Management
 A.A. - Technical Communications

continued on next page
## Degrees and Certificates

### Business Technology
- **Degrees:** A.A. - Administrative Professional  
  A.A. - Virtual Administrative Professional
- **Certificates:** Business Information Worker  
  Law Office Clerical Assistant  
  Office Technology  
  Virtual Office Professional

### Chemistry
- **Degree:** A.S. - General Science

### Computer Information Science
- **Degrees:**  
  A.S. - Computer Science  
  A.S. - CIS: Computer Networking Management  
  A.S. - CIS: Computer Programming  
  A.S. - CIS: Database Management  
  A.A. - CIS: Microcomputer Applications  
  A.S. - CIS: PC Support Management  
  A.S. - Information Systems Security  
  A.A. - Technical Communications
- **Certificates:** CIS: Computer Networking Management  
  CIS: Computer Programming  
  CIS: Database Management  
  CIS: Microcomputer Applications  
  CIS: PC Support  
  Computer Information Security Essentials  
  Information Systems Security  
  Internet Marketing  
  Mobile Programming  
  Network Administration  
  Essentials-Windows  
  Technical Communications  
  Web Developer  
  Web Publishing

### Dance
- **Degree:** A.A. - Dance

### Deaf Culture & ASL Studies
- **Degree:** A.A. - Deaf Culture & American Sign Language Studies
- **Certificate:** Deaf Culture & American Sign Language Studies

### Design & Engineering Technology
- **Degrees:**  
  A.A. - Design Technology  
  A.S. - Engineering Technology
- **Certificates:** Design Technology Engineering Technology

### Diesel/Clean Diesel Technology
- **Degree:** A.S. - Diesel Technology
- **Certificates:**  
  Clean Diesel Hybrid Technology  
  Clean Diesel Management Systems  
  Clean Diesel Technology  
  Diesel Technology  
  Preventive Maintenance

### Early Childhood Education
- **Degrees:**  
  A.A. - Early Childhood Education  
  A.A. for Transfer - Early Childhood Education
- **Certificates:**  
  Associate Teacher  
  Culture and Diversity Specialist  
  Curriculum Specialist  
  Infant Specialist  
  Management Specialist  
  Master Teacher  
  School Age  
  Site Supervisor  
  Special Needs Specialist  
  Teacher

### Economics
- **Degree:** A.A. - Economics

### Electronics Technology
- **Degrees:**  
  A.S. - Electronic Systems Technology  
  A.S. - Mechatronics
- **Certificates:** Advanced Electronics and Telecommunications  
  Biomedical Equipment Technology  
  Digital Home Technology Integration  
  Digital Repair & Upgrade Technician  
  Electronic Systems Technology  
  Fiber Optics  
  Mechatronics  
  Robotics  
  Telecommunication Specialist

### Energy
- **Certificates:** Solar Energy Systems Design, Estimation, and Sales  
  Solar Energy Technology

### Engineering
- **Degrees:**  
  A.S. - Civil Engineering  
  A.S. - Electrical Engineering  
  A.S. - Mechanical Engineering

### English
- **Degrees:**  
  A.A. for Transfer - English  
  A.A. for Transfer - Elementary Teacher Education  
  A.A. - English Communication & Literature

### English as a Second Language
- **Certificates:**  
  Advanced Proficiency in ESL  
  Advanced-High Proficiency in ESL

### Fashion
- **Degrees:**  
  A.A. - Fashion Design  
  A.A. - Fashion Merchandising
- **Certificates:** Fashion Design  
  Fashion Merchandising

### Fire Technology
- **Degree:** A.A. - Fire Technology
- **Certificates:**  
  Fire Technology  
  Firefighter Recruit Academy

### Foreign Languages
- **Degree:** A.A. - Language Studies
- **Certificate:** A.A. for Transfer - Spanish

### Funeral Service Education
- **Degree:** A.S. - Funeral Service Education

### Geography/GIS
- **Degrees:**  
  A.A. for Transfer - Geography  
  A.S. - General Science
- **Certificate:** Geographic Information Systems (GIS)

### Geology
- **Degrees:**  
  A.S. - Geology  
  A.S. - General Science

### Gerontology
- **Degree:** A.S. for Transfer - Gerontology
- **Certificate:**  
  Case Management/Social Services  
  Environmental Design  
  Health Care  
  Recreation  
  Social Policy/Advocacy

### Healthcare Interpreting
- **Certificate:** Healthcare Interpreting

### History
- **Degree:** A.A. for Transfer - History

### Honors
- **Certificate:** Honors Transfer

### Horticulture
- **Degrees:**  
  A.S. - Horticulture  
  A.S. - Landscape Design Technology
- **Certificates:** Horticulture Landscape Design Technology

### Hospitality Management
- **Degree:** A.A. - Culinary Arts/Restaurant Management
- **Certificates:**  
  Culinary Arts/Restaurant Management  
  Restaurant Management  
  Baking and Pastry
### Degrees and Certificates

#### Human Services
- **Degrees:** A.A. - Human Services  
  A.A. - Chemical Dependency Studies  
- **Certificates:** Human Services  
  Chemical Dependency Studies  

#### Interdisciplinary Studies
- **Degrees:** A.A. - English Communication and Literature  
  A.A. - History of Creative Arts  
  A.A. - The Individual and Society  
- **Certificates:** CSU General Education  
  Honors Transfer  
  Interssegmental General Education Transfer (IGETC)  

#### International Studies
- **Degree:** A.A. for Transfer – Global Studies #  
  A.A. International Studies  

#### Interior Design
- **Degree:** A.A. - Interior Planning & Design  
- **Certificates:** Para Professional Interior Planning and Design  

#### Journalism
- **Degrees:** A.A. - Journalism and Mass Communication  
  A.A. for Transfer – Journalism and Mass Communication  
- **Certificates:**  

#### Kinesiology and Athletics
- **Degrees:** A.A. for Transfer - Kinesiology  
  A.S. Physical Education  
  A.S. Sports Medicine  
- **Certificate:** Fitness Specialist  

#### Legal Studies
- **Degree:** A.A. - Paralegal Studies  
- **Certificates:** Law Office Clerical Assistant  
  Paralegal Studies  

#### Management
- **Degrees:** A.A. - Management  
  A.A. - Leadership  
- **Certificates:** Conflict Management  
  Introduction to Leadership in Action  
  Leadership  
  Project Management  

#### Marketing
- **Degrees:** A.A. - Advertising & Sales Promotion  
  A.A. - Marketing  
  A.A. - Retail Management  
- **Certificate:** Marketing - Introduction  
  Retail Management (WAFC)  

#### Mathematics & Statistics
- **Degrees:** A.S. - Mathematics  
  A.S. for Transfer - Mathematics  
  A.S. - Physical Science/Mathematics  

#### Music
- **Degrees:** A.A. - Music  
  A.A. for Transfer – Music  
  A.A. - Commercial Music: Business  
  A.A. - Commercial Music: Recording  
  A.A. - Jazz Studies  
- **Certificates:** Commercial Music: Business  
  Commercial Music: Recording  
  Digital Audio Production  
  Music Management and Promotion  

#### Natural Resources
- **Degree:** A.S. - Environmental Conservation  
  A.S. - General Science  
- **Certificate:** Environmental Conservation  

#### Nursing & Allied Health
- **Degrees:** A.S. - LVN to RN Career Mobility  
  A.S. - Registered Nursing  
- **Certificates:** Licensed Vocational Nurse (LVN) - 30-unit option  

#### Nutrition & Foods
- **Degree:** A.S. for Transfer – Nutrition and Dietetics  
- **Certificate:** Dietary Manager/Dietary Service Supervisor  

#### Paramedic
- **Degree:** A.S. - Paramedic  
- **Certificate:** Paramedic  

#### Philosophy
- **Degrees:** A.A. for Transfer - Philosophy  

#### Physical Education (see Kinesiology)

#### Physical Science & Physics
- **Degrees:** A.S. - Physical Science/Mathematics  
  A.S. for Transfer – Physics  
  A.S. - General Science  

#### Political Science
- **Degree:** A.A. - Political Science  
  A.A. for Transfer - Political Science  

#### Psychology
- **Degrees:** A.A. - Psychology  
  A.A. for Transfer - Psychology  

#### Public Safety
- **Certificates:** POST Basic Law Enforcement Academy – Modular Format  
  POST and STC Certified Courses for Pershable Skills  
  POST and STC Certified Instructors Courses  
  STC Certified Core Courses  
  Traffic Accident Investigations Series  

#### Real Estate
- **Degree:** A.A. - Real Estate  
- **Certificate:** Real Estate  

#### Recreation
- **Degree:** A.A. - Recreation  

#### Respiratory Care
- **Degree:** A.S. - Respiratory Care  

#### Science - General
- **Degree:** A.S. - General Science  

#### Sign Language Studies (see Deaf Culture & ASL Studies) (see ASL-English Interpreter Preparation)

#### Social Justice Studies
- **Degrees:** A.A. for Transfer – Social Justice Studies: Race and Ethnicity #  
  A.A. for Transfer – Social Justice Studies: Women, Gender, and LGBTQ Studies #  

#### Social Science
- **Degrees:** A.A. - Social Science  

#### Sociology
- **Degree:** A.A. for Transfer - Sociology  

#### Speech Communication
- **Degree:** A.A. for Transfer - Communication Studies  

#### Speech/Language Pathology
- **Degree:** A.S. - Speech - Language Pathology Assistant  

#### Student Government
- **Certificate:** Leadership Development  

#### Teacher Education
- **Degree:** A.A. for Transfer - Elementary Teacher Education  

#### Theatre Arts
- **Degrees:** A.A. - Theatre Arts: Acting  
  A.A. - Theatre Arts: Technical Production  
  A.A. for Transfer - Theatre Arts  
  A.A. Film  
- **Certificates:** Acting  
  Children’s Theatre  
  Costuming  
  Film  

#### Welding Technology
- **Degree:** A.S. - Welding Technology  
- **Certificates:** Welding Technology  
  Welding Metallurgy and Inspection  

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* GE Pattern: IGETC for STEM only - see a Counselor  
** GE Pattern: IGETC only - see a Counselor  
*** GE Pattern: Included in degree - see a Counselor  
# Pending - See a Counselor
## Department Certificates

Department Certificates are intended to certify that students completing all required courses of a major are prepared to meet specific occupational needs, upgrade skills or for advancement in an existing career. A grade of “C” or better is required in each course leading to the Department Certificate. The certificate requires completion of all courses listed in the required program of the student. Department Certificates require 15.99 units or less.

For certificates in Level 1 and 2, all units must be completed at American River College. For all certificates in Level 3, 12 units must be completed at American River College.

### Level 1: 1-6 units
### Level 2: 7 units
### Level 3: 8-15.99 units

<table>
<thead>
<tr>
<th>Certificate</th>
<th>Level</th>
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</thead>
<tbody>
<tr>
<td><strong>Apprenticeship</strong></td>
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<tr>
<td>Green Technology Pre-Apprenticeship</td>
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<tr>
<td>Infrastructure Pre-Apprenticeship</td>
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<td>Utilities Worker Pre-Apprenticeship</td>
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<td>Sculpture</td>
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<td><strong>Art New Media</strong></td>
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<td>Foundation</td>
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<td><strong>Automotive Technology</strong></td>
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<td>Automotive Brakes</td>
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<td>Automotive Suspension and Steering</td>
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<td>Small Engines</td>
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<td><strong>Automotive Collision Technology</strong></td>
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<td>Automotive Claims Estimator</td>
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<tr>
<td>Automotive Collision Technology -- Non-Structural</td>
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<td>Automotive Collision Technology -- Refinish</td>
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<td>Automotive Collision Technology -- Structural</td>
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<td>Basic Electronics and Telecommunications</td>
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<td>Basic Mechatronics</td>
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<td>Intermediate-Low Proficiency in ESL</td>
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<td>Fashion Entrepreneur</td>
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<td>Fashion Illustration</td>
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<td>Fashion Retailing</td>
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<td>Fire Investigation 1B</td>
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<td>Fire Investigation 2A</td>
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<tr>
<td>Fire Investigation 2B</td>
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<td>Activity Leader Certification</td>
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<td>Dementia Care</td>
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<tr>
<td>Elder Care</td>
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<tr>
<td>Ethnicity and Aging</td>
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<tr>
<td>Leadership in Assisted Living Communities</td>
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<td>Senior Fitness</td>
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<td><strong>Horticulture</strong></td>
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<td>Floristry</td>
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<td>Horticulture Skills</td>
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<td>Landscape Design</td>
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<td>Plant Production</td>
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<td>Sustainable Landscape</td>
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<td>Lactation Consultant Assistant</td>
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<td>Lactation Educator/Counselor</td>
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<tr>
<td>Green Building and Sustainable Design for Interiors</td>
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<tr>
<td>Interior Retail Merchandising</td>
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<tr>
<td>Universal Design</td>
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<tr>
<td><strong>Kinesiology and Athletics</strong></td>
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<td>Senior Fitness</td>
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<td><strong>Management</strong></td>
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<td>Leadership in Action: Organizational Learning</td>
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<td>Leadership in Action: Organizational Systems</td>
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<tr>
<td>Leadership in Action: Organizational Teams</td>
<td>2</td>
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<tr>
<td>Leadership in Action: Organizational Variation</td>
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<td><strong>Music</strong></td>
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<td>Music Instruction Assistant</td>
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<td>Studio Jazz/Pop Voice Instructor</td>
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<td>Studio Music Instructor</td>
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<td>Studio Voice Instructor</td>
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<td><strong>Natural Resources</strong></td>
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<td>Environmental Conservation Technician: Conservation/Restoration</td>
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<td>Fishes</td>
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<td>Forest/Rangeland</td>
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<td>Vegetation</td>
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<td>Real Estate Sales</td>
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<td><strong>Theatre Arts</strong></td>
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<td>Musical Theatre</td>
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<td>Theatre Production</td>
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<td><strong>Welding</strong></td>
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<tr>
<td>Gas Metal Arc and Flux Core Arc</td>
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<td>Welding Plate</td>
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<td>Gas Tungsten Arc Plate and Pipe Welding</td>
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<td>Pipe Welding</td>
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<tr>
<td>Shielded Metal Arc Plate and Pipe</td>
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<tr>
<td>Welding Equipment Maintenance and Blueprint Interpretation</td>
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</tr>
</tbody>
</table>

American River College Catalog 2019-2020
• Admission to College
• Commitment to Success
• Steps to Success
  1. Application
  2. Financial Help
  3. Orientation
  4. Placement
  5. Educational Plan
  6. Registration
• Prerequisites, Corequisites & Advisories
• Transportation
  (Parking and Regional Transit)
• Prerequisites, Corequisites & Advisories
• Fees and Fee Refund Policy
• Financial Aid
Admission to College

American River College is open to all high school graduates or those who are at least 18 years of age who are capable of benefiting from community college instruction. If you are a permanent resident of California, verification of your residency may be required.

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, is eligible for admission to American River College. Non-high school graduates 18 years of age or older, who demonstrate to the satisfaction of college authorities that they are able to profit by the instruction, may also be admitted.

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

There are 4 main types of students who attend American River College:

• First-time college students - individuals who are a high school graduate OR at least age 18 and never before enrolled at any college.
• Continuing students - anyone who attended classes at any Los Rios college and is enrolling in the next term.
• Students returning to ARC or transferring from a non-Los Rios College. All students returning after an absence must complete an application for admission and must mail official transcripts of all other college work to the Enrollment Services office.
• High-school students - If you will be a high school junior or senior in grades 11-12, or at least 16 years of age as of Spring 2016, you may be eligible to enroll in a maximum of two ARC courses each semester on Advanced Education status.

Commitment to Success

American River College aims to engage and connect students early and often to people, programs, and services that create an integrated educational experience. By providing personalized and proactive support, the College fosters relationships that ensure all students persist, learn, and succeed. The Steps to Success described below are designed to help students develop and achieve their educational goals. Students are more likely to succeed in college when they have an accurate assessment of their skills, clear educational goals, and an understanding of the course selection and enrollment processes.

As part of a commitment to student success, the college agrees to provide the following services:

• An admission process
• Orientation to college
• A curriculum or program of courses
• Assistance with the placement process
• Counseling and advisement on course selection
• An opportunity to develop an educational plan to meet educational goal
• Continued monitoring of academic success with referral to support services when needed
• Access to financial aid resources and information

The student agrees to:

• Identify an educational goal within a reasonable period of enrollment
• Attend classes regularly and complete assigned coursework
• Maintain progress toward an identified educational goal according to standards established by the college and the State of California
• Use support services as needed
• Consult with counselors and advisors when needed

Steps to Success

For assistance with the completion of these steps please visit the Connect Center in the Welcome and Support Center building on the main campus.

Step 1 – Apply to ARC

Get started on your path to college by filling out our free online application. You will be automatically accepted if you have a high school diploma (or equivalent) or are at least 18 years old. Once you are accepted, we will email you a student ID number and instructions for next steps. All first-time, returning/transfer, and high-school students must submit an online application. Continuing students must submit a supplemental enrollment form each term. The application to attend American River College is available on the college website at: arc.losrios.edu
GETTING STARTED

Step 2 – Get Financial Help
With the new Los Rios Promise, all first-time students who complete a FAFSA (or California Dream Act application for undocumented students) and enroll full time (minimum of 12 units) are eligible for free tuition. Links to FAFSA and the California Dream Act are available on the college website.

In addition to the Los Rios Promise program, there are several other ways to get financial assistance if you need help paying for college. You may qualify for thousands of dollars in aid from federal, state, and private resources. Types of financial aid include fee waivers, grants, scholarships, and loans. For more information, visit the Financial Aid Office webpages on the college website.

Step 3 – Complete Orientation
Online orientation provides new students with vital information about college programs, services and resources. All first-time, returning/transfer, and high-school students are required to complete the in-person orientation where students will be offered guidance on the course selection process so that they know which classes to enroll in during their first semester.

Step 4 – Place into the Right Classes
To help ensure your success, you will be placed in English and math classes that match your skill level.

Use high school records for placement
You will be automatically placed into English and math classes if you:
• Graduated from a US high school within the last ten years
• Included all of the requested information about your high school records on your college application

You can view your placement results in your eServices account in the Assessment Placements section.

Go to ARC’s Assessment Center for placement
If you graduated from a US high school within the last ten years but you did not report your high school information on your college application, then you can bring your high school transcripts to your college’s Assessment Center to receive your course placements in English and Math.

Use college records for placement
If you have attended another college (outside of Los Rios), then you can provide college transcripts showing that you passed certain classes. Additional forms may be necessary depending on the college and course.

Use guided self-placement
If you did not complete high school or have been out of high school for more than ten years, then you should use the guided self-placement process to figure out what English and math courses to take. Visit the college website to find the guided self-placement tool.

English as a Second Language (ESL) assessment
If you are still learning English, then you can go to your college’s Assessment Center to take the ESL assessment test, which will place you in an ESL class that matches your skill level.

Step 5 – Make an Educational Plan
An educational plan is an important part of the planning process for all students to help ensure that students are enrolled in the classes necessary to complete a program of study. During orientation (Step 3), students will be offered guidance on the course selection process so that they know which classes they should enroll in during their first semester. During the first semester at ARC, all students should see a counselor to complete a comprehensive educational plan, which will provide direction on courses needed to complete a program of study and/or educational goal.

Step 6 – Enroll in Classes
Registration is by priority assignment for students completing all of the Steps to Success by April 1 for summer/fall and November 1 for spring. Open registration begins approximately three weeks after the start of priority registration.

For information on specific dates and times for priority and open registration, please contact the Admissions & Transition Services office. Please note that it is not possible for the college to offer every course of instruction every semester, and therefore some of the classes listed in this catalog may not be offered in any given term. Check the Schedule of Classes to determine if a class is to be offered in a given term.

Students who are brand new to college may enroll in classes (also called registering for classes) based on when the Steps to Success are completed. Priority registration is available for veterans, disabled students, students receiving CalWORKs, and those who are enrolled in EOP&S/CARE/NextUp and foster youth. Refer to the Student Resources section of this catalog for more information.
Challenges to the SSSP Matriculation Process

Exemption Criteria
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:
   • identified a goal of upgrading job skills enrolled for fewer than 12 units
   • concurrently enrolled in another postsecondary institution
   • declared no degree or occupational objective

Exemptions
The college shall provide students with written and verbal information about the purpose of the matriculation process and the benefits of participation in each step. Students who wish to challenge any part or all of the matriculation process (Orientation, Assessment, or Counseling) must meet with the SSSP Coordinator or designated representative to discuss the reason/rationale for the challenge and provide information to support the challenge.

In addition, students wishing to challenge specific matriculation steps within the matriculation process will be informed of their rights to participate in all other non-disputed steps, and will be asked to sign a statement waiving their right to the matriculation process, thus providing acknowledgment to the college of receipt of the information above. All new American River College students are required to participate in the matriculation process (Orientation, Assessment, and Counseling) with the exception of those who meet exemption criteria.

High School Students/Advanced Education
If you will be a high school junior or senior in grades 11-12, or at least 16 years of age by the first day of instruction, you may be eligible to enroll in a maximum of two ARC courses each semester on Advanced Education status.

You must follow the following steps each semester you wish to enroll as an Advanced Education student.

1. Read the entire Advanced Education form and website by visiting arc.losrios.edu/counsel, which includes guidelines indicating which courses are appropriate for Advanced Education students and which are excluded.
2. New Advanced Education students: Complete the ARC application online indicating that you are an advanced education student and not a new or transfer student. Continuing Advanced Education students: Complete the supplemental information form.
3. Complete the Advanced Education application (available at your high school counseling office or online at arc.losrios.edu/counsel). Your high school counselor must recommend specific courses and the form must be signed by your high school principal or designated counselor/administrator, your parent/guardian and you.
4. Check course pre-requisites: include CAASP or AP or IB test scores as needed to meet pre-requisites.
5. Submit your Advanced Education packet via the Advanced Education email address: advanceded@arc.losrios.edu or drop off your packet in person to the Advanced Education box in the Counseling Center at the ARC main campus by one of the packet submission deadlines.

   Note: See the college website at: arc.losrios.edu for all documents to include in your packet.

6. After submitting your packet you will receive one of the following confirmation emails: Approval with a link to register for an advanced education orientation; Missing a Document with instructions on resubmitting your packet; Denial with further instructions. Students who are approved will receive an advanced education add slip and additional information about enrolling in courses at American River College.

If you fail to complete any of the above steps you will be denied entrance to the Advanced Education Group Counseling session and will be required to reschedule for a later date when all steps have been completed.

Advanced Education requirements are:

1. Exemplary academic achievement, as demonstrated by multiple measures including, but not limited to grade in similar courses, GPA of 2.7 or above, analysis of transcripts, assessment results, other student achievements, and/or letters of support from high school counselors and teachers.
2. Must be at least 16 years old or have completed the sophomore year of high school by the first day of instruction for the semester.
3. The course you want to take is not available to you at your school during the semester you are enrolled at ARC.
4. The course is not remedial.
5. The course is not being repeated due to an unsatisfactory high school grade.
6. The course is for advanced study and you are able to demonstrate adequate preparation and have completed prerequisites for the course.

Special Note: Although Advanced Education students who are California residents are not charged enrollment fees, you will be charged the mandatory UTP fee and will be entitled to receive the Student Access Card. Non-residents, including international and undocumented residents, must pay non-resident fees.

For more information, please call (916) 484-8572.
Prerequisites, Corequisites and Advisories

It is the intent of American River College to guide students into courses in which they will have the greatest chance for academic success. Therefore, you will find courses that have prerequisites, corequisites or advisories in their description. It is highly recommended that you review the prerequisite course material to enhance your chance of success. The definitions for prerequisites, corequisites and advisories are:

**Prerequisites** are requirements that a student must complete prior to enrollment in a particular course.

**Corequisites** are courses that students are required to enroll in at the same time as (or, in some cases, prior to) a particular course.

**Advisories** are suggested courses or skill levels that a student is advised to obtain prior to enrolling in a particular course in order to improve student success.

Prerequisite Verification

Math and English course prerequisites are verified in Enrollment Services. ARC must verify courses completed outside of the Los Rios District in order to clear prerequisite holds. Refer to the Enrollment Services web page for the “Prerequisite Equivalency form” and instructions.

Students may enroll for courses other than math and English that require a prerequisite. If a student meets the prerequisite with a class from outside the Los Rios district, the student must go to the Counseling Department to get a “Prerequisite Verification form.” Students must provide copies of transcripts (official or unofficial) to a counselor to receive the form. Students provide the “Prerequisite Verification form” to their instructor in order to remain enrolled in their course.

Prerequisite Challenge Procedure

Students who do not meet a prerequisite should seek counseling advice for making an appropriate course selection, prior to enrolling courses. If you feel that you can meet the requirements, or one of the conditions below exists, then you can challenge a prerequisite. A Prerequisite Challenge Form may be obtained from the appropriate division office. The form will explain what you must do. Criteria for challenging a course are:

1. You have knowledge or ability to succeed in the course without the prerequisite.
2. The course which provides the prerequisite is not readily available.
3. You believe that the prerequisite is discriminatory or being applied in that manner.
4. You believe that the prerequisite was established in violation of regulations and/or the established district approved policy and procedures.

Once you have completed the challenge procedure, your challenge will be reviewed by a department’s Prerequisite Challenge Committee. You will be informed in writing of the committee’s determination within five working days of the review. Working days consist of days that faculty are on campus and classes are in session. If you register for a class and do not meet the prerequisite, the instructor has the right to drop you from the class.

Transportation

Parking

Designated student parking areas are located in all parking lots on campus, except in parking lot E and the parking area in front of the Administration Building.

All students wishing to park a motorized vehicle in designated student parking are subject to a parking fee. A parking permit (decal) may be purchased at Business Services beginning 15 days prior to start of summer session and 30 days prior to start of fall and spring semester. You can also buy your semester decal online through eServices. Permits will be mailed. Allow adequate time for you to receive your decal before classes begin.

**Automobiles:** $40 per semester; $25 per summer session

**Motorcycles:** $25 per semester; $15 per summer session

The semester parking permit can be used at all campuses throughout the Los Rios Community College District. It’s important to note that:

- students who qualify for a Promise Grant may purchase one parking permit per semester at a reduced price of $30
- a parking permit does not guarantee a parking space
- fees are subject to change

Instead of a semester permit, students may purchase a daily parking permit for $2 from machines located in various parking lots, as indicated on the campus map. Students driving motorcycles are encouraged to use parking permits (decals), rather than daily parking permits.

Parking by semester decal or daily parking permit is enforced 24 hours a day, 7 days a week, 365 days out of the year. Vehicles not having a valid parking decal or daily parking permit properly displayed will be given a parking citation.

Citations will also be issued for violations of campus parking and traffic regulations. A copy of campus parking/traffic regulations may be obtained from the Campus Police Office, or viewed online at [police.losrios.edu](http://police.losrios.edu)
Disabled Parking
Spaces for disabled students are available in all student parking lots. Students with disabilities, and persons providing transportation services to students with disabilities, must pay either semester or daily parking fees. A placard issued by Department of Motor Vehicles for persons with disabilities, or a distinguishing license plate for persons with disabilities, and a valid semester permit or daily parking pass must be properly displayed on the vehicle.

Temporarily Disabled Students
Students with a temporary disability may obtain a special parking permit from the ARC Health Center that allows parking in spaces designated for disabled persons. Students who are issued the special college permit must still pay the established parking fee. The special parking permit, due to the temporary disability, and either the semester permit or daily parking pass must be properly displayed on the vehicle. Failure to display the appropriate license plate, placard or special permit as described above will result in a parking citation.

Where to Display Your Permit
Display parking decals on the lower passenger side of the front windshield or hang it from the rearview mirror so that it is visible through the windshield. An optional plastic decal holder is available at Business Services in the Administration Building. The daily parking permit is to be displayed face up on the dashboard, on the passenger’s side. Remove all other expired permits from the dashboard.

If a parking decal is lost or stolen, a new permit must be purchased. If your vehicle is sold, or if the windshield is damaged, you must show proof of sale or repairs and bring in the old decal (decal number must be intact) before another will be issued by Business Services. There is a $2 charge for replacement of decals.

Off-campus students
Parking fees are charged at the college’s off-campus Natomas Center. However, no parking fees are charged at McClellan, and any other sites where ARC classes are scheduled.

Regional Transit
Sacramento Regional Transit currently serves American River College via different bus routes. Information is available online on the Regional Transit website at sacrt.com. ARC students receive a substantial discount on fares for any bus or light rail service provided by Sacramento Regional Transit (not just for commuting to school), provided via the Universal Transit Pass fee that is assessed as part of the class enrollment process. For detailed information see “Student Access Card and Universal Transit Pass (UTP) Sticker” on page 18.

Pay Your Fees
Community College Enrollment fees are set by the California State Legislature. All fees are subject to change. The general enrollment fee for California residents was $46 per unit at time of publication. Should the California State Legislature increase enrollment fees, students who have registered for classes prior to any increase may be billed for the additional amount. For a full schedule of fees visit arc.losrios.edu.

Enrollment Fee Payment Deadlines
Payment is due upon registration. If you register prior to the start of the term, your payment must be processed within fourteen (14) days of registration by the Business Services office no later than ten (10) days prior to the start of the term, your payment must be processed within fourteen (14) days of registration or by the Friday before the term begins, or you will be dropped. After the term has started, payment is due immediately upon registration, or you will be dropped.

- It is your responsibility to drop any unwanted class(es) by the deadline identified for the term. Failure to drop by the deadline may result in any of the following: 1) debt to the college; 2) a notation on your record.

Fees when on a Wait List
You do not have to pay fees for a class for which you are on the wait list. However, once you are automatically moved from the wait list into the class, you are responsible for paying fees for that class within the timeline stated above. You are responsible for checking your wait list status each day and/or removing yourself from a wait list. Payment for fees can be made online using Visa or MasterCard.

Dropping from a Wait List class
If you are automatically enrolled from the Wait List and decide not to attend the class, you are responsible for dropping by the deadline identified for the term. Failure to drop by the deadline may result in a debt to the college and/or a notation on your record.

How to pay enrollment fees
Refer to “Enrollment Fee Payment Deadlines.” Payment by VISA or MasterCard may be made by students who enroll online, at ARC eServices Registration Lab, in Business Services in the Administration Building and/or at the Natomas Center.

- Payment by check may be mailed using the payment coupon.
- Cash payments may be made only at the ARC eServices Registration Lab, in Business Services in the Administration building, or at the Natomas center. Do not mail cash.
- If you are paying by mail, your payment must be received by the Business Services office no later than ten (10) days following registration to allow time for manual processing. Do not mail cash.
Paying Other Fees

Non-resident tuition
Students who have not established legal residence in California are required to pay tuition and fees for a total of $326 per unit. At the time of this publication, fees were set at the level shown here, but are subject to change pending legislative action. Students will be billed for and are required to pay any increased fees. Please contact Enrollment Services for details regarding residency requirements. Payment for non-resident tuition must be paid at the time payment for the enrollment fee is made.

California non-resident tuition waiver
Any student, other than a non-immigrant alien, who meets the following requirements, may be exempt from paying nonresident tuition at the California Community Colleges, the California State University and the University of California (all public colleges and universities in California).

Requirements:
• The student must have attended a high school (public or private) in California for three or more years.
• The student must have graduated from a California high school or attained the equivalent prior to the start of the term (for example, passing the GED or California High School Proficiency exam.)

Additional information and California Non-resident Tuition Exemption request forms available at ARC Enrollment Services, Administration Building.

International student application fee
Non-resident applicants who are both citizens and residents of a foreign country shall be assessed a non-refundable application process fee of $50. The application fee is due and payable with submission of the application for admission or readmission. International student applications will not be processed without payment of the fee.

International student tuition
Students who are both a resident and citizen of a foreign country and are in the United States on a F-1 or J-1 visa must pay tuition and fees for a total of $326 per unit.

Health Service Fee
There is a $20 health services fee. There are some exemptions/waivers. Please visit the Los Rios Community College District website at losrios.edu for more information.

Credit by examination
A per-unit fee equivalent to the general enrollment fee and non-resident/international student tuition fee (if applicable) will be required for any units awarded by means of examination. Contact Enrollment Services in the Administration building for the form that must be completed prior to paying the fees for credit by exam.

Materials fees
You may be required to provide instructional and other materials for a particular course. Instructional material fees are to be paid at Business Services in the Administration building.

Student representation fee
Under provisions of California Education code section 76060.5 and California Code of Regulations, Title 5, sections 54801-54805, the students of this college have established a student representation fee of one dollar ($1.00) per semester.

The money collected shall be expended to provide for students or representatives who may be stating their positions and viewpoints before city, county and district government, and before offices and agencies of the state and/or federal government.

This fee is mandatory; however, a student has the right to refuse to pay for the following reasons: religious, political, moral and financial. This refusal must be in writing and submitted to the college Business Services office on form #GS55A which is available in your college Business Services office. The waiver is also available online through the student’s eServices account.

Instructional Materials Fee
Students may be required to provide instructional and other materials required for a credit/pass or no credit/no pass course. Instructional materials may be charged in certain courses.

Some courses may require students to participate in field trips as a component of the curriculum. If students need assistance in order to participate in a field trip or a field studies activity, they should contact the course instructor or the division dean.

Maintenance Allowance
A California resident who resides more than 60 miles from the nearest public community college campus may file an application for a maintenance allowance in Enrollment Services. The rate of payment is determined by the State Chancellor’s Office, and is issued to the parent or guardian of minor non-district students, and directly to adult non-district students and married minors. Payment is based on each day of full-time scheduled attendance.

FEES ARE SUBJECT TO CHANGE
Student Access Card and Universal Transit Pass (UTP) Sticker

All-in-one!
- Official Los Rios District college ID card
- Library Card
- Universal Transit Pass (public transit bus and light rail)
- Provides access to computer labs and campus services
- Money can be added to the card for photocopying and printing only!

Student’s Universal Transit Pass (UTP) Fees and Dates

LRCCD Students approved a Universal Transit Pass (UTP) fee that allows students to use public transit bus and light rail systems at a greatly reduced rate. Your Student Access Card is your transit pass. For your Student Access Card to be valid as a Regional Transit pass, it must have the current UTP semester sticker attached. Coverage areas include: Sacramento Regional Transit, Amador Regional Transit, El Dorado Transit, e-tran, Folsom Stage Line, Yolobus (subject to changes).

Valid:
Seven days a week, from August 1 through December 31 for the fall semester; from January 1 through May 31 for the spring semester; and from June 1 through July 31 for the summer session.

Sticker Available:
The sticker is available for pick-up the first business day in August for the fall semester; the first business day in January for the spring semester; and the first business day in June for the summer session.

Fall / Spring Semester
Eligibility:
- A Universal Transit Pass (UTP) is available to eligible students who enroll in one (1) or more units a semester at any one Los Rios college (not just on a waitlist)
- Have no outstanding balance due on their account
- Bring a valid photo ID

Cost:
All students (including Promise Grant students) are assessed a UTP fee at $2.25 per unit, rounded up to the next whole unit (3.01 units = 4 units x $2.25 = $9). The maximum fee charged is $33.75 a semester for students enrolled in 15 or more units across the Los Rios Colleges.

Summer Session
Eligibility:
All students (including Promise Grant students) enrolled in the summer session will be assessed the UTP fee.

Cost:
The fee is $11 regardless of the number of units enrolled in.

Exemptions / Waivers
The following students are not eligible for the UTP: Students enrolled in the Sacramento Regional Public Safety Center and Apprenticeship Programs; Students taking classes on the UC Davis main campus and students studying abroad.

GoPrint Card - Photocopying or Printing
Money can be added to the Access Card and used to make photocopies or prints at any GoPrint station at any college in the Los Rios District. ARC’s GoPrint stations are located in the Library, Learning Resource Center (LRC) and the Student Center (next to the ATM).

Note: The money on this card can only be used for this purpose and is non-refundable. No Exceptions.

UTP Sticker/Student Access Card Refund and Replacement Policy

Refund
Fall / Spring Semester
The fee is refundable if a student drops courses within the fee refund period. The Regional Transit monthly pass is refundable.

Summer Session
The fee is refundable if a student drops all of their units within the refund period and a UTP sticker was not issued to the student. A minimum fee of $11.00 will be withheld from the refund if a UTP sticker has already been issued to the student.

Damaged / Lost or Stolen
Each student will be issued one (1) Student Access Card free of charge each academic year. There is no charge for damaged cards or the replacement of a damaged UTP sticker if the remnants of your damaged sticker are attached to your card. Otherwise, the following charges will apply:
- Access Card only: $5.00
- Lost/Stolen UTP Sticker: $33.75 (fall and spring); $11 (summer)
- Access Card & Lost/Stolen UTP Sticker: $38.75 (fall and spring); $16 (summer)

For questions regarding Access Card/Universal Transit Pass go to the Center for Leadership and Development (Student Center Building – next to Starbucks).
How to Get Refunds

Enrollment Fee Refund Policy

- The enrollment fee, non-resident tuition fee, international tuition fee or Universal Transit Pass fee (if a sticker has not been picked up) is refundable for program changes made by Friday of the 2nd week of instruction for full term courses or by Friday of the first week of instruction for short-term courses (short term = any course less than full term).

- Refund eligibility is determined by the date the course is officially dropped, either in person or by using eServices. There are no refunds for courses dropped after the deadlines identified for the term. Requests for refunds must be filed by the last day of instruction in the semester for which the fee was paid or they will be disallowed. Credit balances will be forfeited and do not carry over to the next semester/term. Application and installment payment fees are non-refundable.

Obtain a Fee Refund Application at the Business Services office. A Fee Refund Application may also be submitted online at https://losrios.edu/refundapp.htm.

Fee refunds will be processed within six to eight weeks, whether a student applies for a refund online or at Business Services. If you add classes and pay fees after the refund deadline for the term in which you are adding, the fees are non-refundable.

Note: For those classes not scheduled during the standard class sessions, all add and drop activity must happen the day before the first class in order to avoid fees and penalties.

For sessions not listed, all identified as “OT” (Other Term), use the day before the class begins as the last day to drop for a refund and/or to drop without a “W” grade.

Parking Fee Refund Policy

Parking fees are fully refundable during the first ten (10) days of the semester (fifth day of the summer session). To receive a refund, a student must attach the decal to the refund application form being submitted. Requests for parking refunds cannot be submitted online.

Financial Aid

The Financial Aid Office is located in the Welcome and Support Center and administers financial aid in accordance with federal, state and institutional regulations. Funds are distributed to students who have documented financial need, as determined by the federal and state analysis, and based upon the resources available to the household. See the Financial Aid web page for more information.

Parents have the primary responsibility to assist their dependent student to pay for educational expenses. Financial Aid is available to qualifying students to help supplement household financial support for the student and cover unmet need after all household resources have been reported and taken into account. Aid to independent students is available based on student contribution and the student’s academic expenses.

The Free Application for Federal Student Aid (FAFSA) is required for campus-based aid, the Pell Grant, and Student Loans. The application allows the government to calculate the expected family contribution. The student completes the FAFSA application listing American River College (001232) as the college of choice. The FAFSA is completed online at fafsa.ed.gov.

In approximately 48 hours after submitting the FAFSA online, the student may view and print a copy of his or her Student Aid Report (SAR) at the FAFSA Web site. The College’s financial aid office will notify the student via eService’s message when the student’s FAFSA has been received.

The message will include instructions about the eServices web portal where students are notified of any required documentation to complete the financial aid file. Documentation requested from students is kept confidential, as established by FERPA standards, and must be furnished if the student is to receive aid. Students who are awarded financial aid are notified by a message.

A student or parent may not foresee all of the expenses involved in attending college and may encounter financial difficulties if careful planning is not exercised. While students and parents must determine their own budget consisting of needs and resources, the following is the average cost of education for financial aid students attending American River College (*Fees are based on the average units for a full time student of 12 x $46/unit):
COST OF ATTENDANCE AT ARC  
2019-2020 Living with parents Living on own

<table>
<thead>
<tr>
<th>Item</th>
<th>Living with parents</th>
<th>Living on own</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room/Board</td>
<td>$5,247</td>
<td>$13,293</td>
</tr>
<tr>
<td>Books/Supplies</td>
<td>1,854</td>
<td>1,854</td>
</tr>
<tr>
<td>Transportation</td>
<td>1,233</td>
<td>1,233</td>
</tr>
<tr>
<td>Personal/Misc.</td>
<td>3,276</td>
<td>3,006</td>
</tr>
<tr>
<td>*Fees ($46/unit)</td>
<td>1,104</td>
<td>1,104</td>
</tr>
<tr>
<td><strong>Totals per year (approximate)</strong></td>
<td><strong>$12,714</strong></td>
<td><strong>$20,490</strong></td>
</tr>
</tbody>
</table>

This is an estimate and subject to change. Check the ARC Financial Aid web page for the most current cost of attendance information.

Student Classification

<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part-time</td>
</tr>
<tr>
<td>Student taking fewer than 12 units.</td>
</tr>
<tr>
<td>Full-time</td>
</tr>
<tr>
<td>Student taking 12 or more units.</td>
</tr>
<tr>
<td>Freshman/First year standing</td>
</tr>
<tr>
<td>Student who has completed fewer than 30 units.</td>
</tr>
<tr>
<td>Sophomore/Second year standing</td>
</tr>
<tr>
<td>Student who has completed 30 or more units.</td>
</tr>
<tr>
<td>Graduate</td>
</tr>
<tr>
<td>Student who has been awarded the Associate in Arts or Science degree, or a higher degree by an accredited college.</td>
</tr>
</tbody>
</table>

Student Eligibility Requirements

There are a number of requirements that must be met before a student is considered eligible for financial aid. Students must:

- have financial need (except for unsubsidized student loans)
- be a U.S. citizen or eligible non-citizen
- not be in default on a Perkins Loan, National Direct Student Loan, Stafford Loan, Guaranteed Student Loan, PLUS Loan, or Supplemental Loan for Students (SLS)
- not owe a refund on a Pell Grant or Supplemental Educational Opportunity Grant
- be making satisfactory progress (financial aid and academic)
- agree to use any federal student aid received solely for educational purposes
- have not completed a BA/BS degree
- have a high school diploma, GED/proficiency certificate
- be enrolled in an eligible major
- submit all requested documentations to the financial aid office.

Reminder: Men are required to register with the Selective Service System upon reaching 18 years of age in order to be eligible for federal financial aid.

Many of these items are collected at the time students apply for financial aid. Before financial aid is awarded, the Financial Aid office will verify that a student is enrolled in an eligible program and that he or she is making satisfactory progress.

California College Promise Grant (Formerly Board of Governors or BOG Fee Waiver)

For eligible California residents, the California Promise Grant permits enrollment (tuition) fees to be waived. The Promise Grant application is online at losrios.edu/lrc/bog_steps.php Students must reapply for the Promise Grant every academic year. If you had a Promise Grant for the spring semester, it does not automatically continue to summer/fall. You must reapply.

Students must maintain a cumulative 2.0 GPA and minimum 50% completion rate to qualify for the Promise Grant. Students who do not achieve and maintain these minimum academic standards will be ineligible for the tuition waiver unless approved on appeal.

Satisfactory Progress Policy

Failure to meet the financial aid satisfactory academic progress standards will result in the denial of aid.

Appeal

All students who are denied aid for lack of satisfactory progress may appeal the denial (except students with an earned unit total that equals or exceeds 150 units from all institutions of higher education). Appeals are submitted in writing to the Financial Aid Office and evaluated by an appeals committee. Please refer to the academic progress requirements on the financial aid webpage. If an appeal has been denied by the committee, then the student is ineligible to re-appeal for financial aid until the next financial aid award year. If a student resolves the deficiency and cumulatively meets satisfactory academic progress standards within the award year, then the student may request reinstatement with the financial office. If an appeal is approved, the student’s academic progress will be reviewed each term.

If you receive federal financial assistance and withdraw from class(es), you may be required to repay all or part of the financial assistance you received. Failure to repay this debt may result in your loss of future federal financial assistance, your academic transcript put on hold, and collection cost assessed by the Department of Education.
If you must withdraw from school, you must follow the appropriate withdrawal procedures explained elsewhere in this catalog. Some conditions apply to certain classes. Students are eligible for aid when enrolled in those courses required for an eligible degree or certificate.

Students who withdraw from all classes will have all future aid canceled and must go through a reinstatement process. Additionally, students may be required to repay any portion of unearned aid the college is required to return to the Department of Education.

Reinstatement
A student who is dismissed from financial aid may have his/her eligibility reinstated by raising the cumulative completion percentage to above 67% and raising the cumulative GPA to the 2.0 standard to resolve the deficiency that resulted in the financial aid dismissal. The units and semesters attempted without aid count toward the maximum number of units a student can attempt. Satisfactory academic progress will be reviewed upon request for reinstatement for Financial Aid.

Student Loan Payments
Loan disbursement occurs in multiple refunds. Students must be in good standing and be enrolled in a minimum of six (6) course applicable units throughout the loan period. Failure to successfully remain in half-time status will result in cancellation of subsequent disbursements during the following semester. Note that first-time borrowers are subject to a 30-day disbursement hold on all federal loan checks.

Scholarships
Los Rios Foundation scholarships are offered to currently enrolled students working towards an associate degree and are awarded on the basis of academic excellence and promise of future achievement.

Financial need is a factor for some awards, but not all. In order to apply, students must have completed at least six units at ARC and at the time of application, be enrolled in six units. Annually, over 160 scholarships totaling more than $200,000 are awarded. The scholarship program runs from January through March each year. Scholarship monies are disbursed beginning the first day of classes of the fall semester (mid-August). The application is completed online.

In addition to the Los Rios Foundation scholarships, many other scholarships are available from Sacramento-area, state, and national sources.

Sources of Student Financial Assistance

<table>
<thead>
<tr>
<th>Type</th>
<th>Federal</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant</td>
<td>Pell Grant* Scholarships</td>
<td>Cal Grants A, B, C#</td>
</tr>
<tr>
<td></td>
<td>Supplemental Educational Opportunity Grant**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Federal Work Study***</td>
<td></td>
</tr>
<tr>
<td>Loan</td>
<td>Direct Student Loan****</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>Federal Work Study***</td>
<td></td>
</tr>
</tbody>
</table>

Note: General financial aid programs are need-based. Eligibility is determined by application.

* A federal entitlement grant program. Grant is determined by need, units enrolled, and status and academic progress.

** A federal supplemental grant which does not have to be repaid. Grants may range from $150 to $600 depending on high financial need and availability of funds. FAFSA application required.

*** A federal program which allows a student to earn part of their financial aid through a part-time job on campus. Need based, FAFSA application required.

**** Low-interest, long-term loan arranged directly through the Department of Education. May be half-time student. Repayment is deferred as long as the student is enrolled at least half time. Need based and must be awarded aid before applying for loan. Loan entrance counseling is required.

# Not all Cal Grants are available to community college students.
Enrollment / Tuition Fee Schedule

<table>
<thead>
<tr>
<th>Type of Fee</th>
<th>Amount</th>
<th>Applies to</th>
<th>Exemptions / Waivers</th>
<th>Refund Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENROLLMENT FEE</td>
<td>$46 per unit</td>
<td>Credit students</td>
<td>Eligible Apprentice Enrollees, Promise Grant Recipients, Eligible-Veterans Dependents</td>
<td>Refundable only if units dropped by drop deadlines</td>
</tr>
<tr>
<td>ADD: Health Services Fee</td>
<td>$20.00</td>
<td>All Students</td>
<td>Refer to web-site link losrios.edu/lrc/lrc_tuitionfees_spring.php</td>
<td>Non-refundable</td>
</tr>
<tr>
<td>PARKING PERMIT FEE for AUTOMOBILE</td>
<td>$20.00</td>
<td>All drivers</td>
<td>Non-Drivers; $30 fee for Fall and Spring for Promise Grant Recipients</td>
<td>First ten days for Fall or Spring semesters / First five days of Summer session</td>
</tr>
<tr>
<td>PARKING PERMIT FEE for MOTORCYCLE</td>
<td>All Students</td>
<td>All drivers</td>
<td>Non-drivers</td>
<td>First ten days for Fall or Spring semesters / First five days of Summer session</td>
</tr>
<tr>
<td>DAILY PARKING FEE</td>
<td>Refer to web-site link</td>
<td>All drivers</td>
<td>Parking permit holders</td>
<td>None</td>
</tr>
<tr>
<td>NON-RESIDENT TUITION</td>
<td>losrios.edu/lrc/lrc_tuitionfees_spring.php</td>
<td>Non-resident students</td>
<td>Legal California residents</td>
<td>Refundable only if units dropped by drop deadlines</td>
</tr>
<tr>
<td>INTERNATIONAL TUITION</td>
<td>Non-refundable</td>
<td>International students</td>
<td>Legal California and U.S. residents</td>
<td>Refundable only if units dropped by drop deadlines</td>
</tr>
<tr>
<td>STUDENT REPRESENTATION FEE</td>
<td>$1 per semester</td>
<td>Credit students (including Promise Grant students)</td>
<td>Refusal based on Moral, Religious, Political or Financial Grounds</td>
<td>Non-refundable</td>
</tr>
<tr>
<td>UNIVERSAL TRANSIT PASS</td>
<td><strong>Fall/Spring:</strong> $2.25 per unit rounded up to the next whole unit (3.01 units = 4 units x $2.10 = $8.40) Maximum UTP fee per semester is $33.75 for all units taken districtwide. All students (including Promise Grant students) enrolled in more than three units. If you are enrolled in multiple Los Rios colleges you must be enrolled in at least 1 or more units at a specific Los Rios college. Eligible Apprentice Enrollees; Sacramento Regional Public Safety Center students; students taking classes on the UC Davis main campus and students studying abroad.</td>
<td>Eligible Apprentice Enrollees; Sacramento Regional Public Safety Center students; students taking classes on the UC Davis main campus and students studying abroad.</td>
<td>Refundable only if units dropped by drop deadline; Note: A minimum fee of $8.40 will be withheld from your refund if a UTP sticker has been issued for the current semester.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Summer:</strong> $11</td>
<td>All students (including Promise Grant students)</td>
<td>Eligible Apprentice Enrollees; Sacramento Regional Public Safety Center students; students taking classes on the UC Davis main campus and students studying abroad.</td>
<td>Refundable only if units dropped by drop deadline; Note: No refund if a UTP sticker has been issued.</td>
</tr>
<tr>
<td>FOREIGN STUDENT APPLICATION FEE</td>
<td>$50 per application</td>
<td>Citizens and residents of a foreign country</td>
<td>Legal U.S. residents and permanent residents</td>
<td>Non-refundable</td>
</tr>
</tbody>
</table>

Community College Enrollment fees are set by the California State Legislature. All fees are subject to change.
• Support Services and Programs
Support Services & Programs

ACE - Accelerated College Education
Natomas Center  (916) 485-6000

The ACE program is designed for working or busy students who wish to complete general education classes towards an Associate’s degree and transfer. Students in the ACE program are part of a cohort group that takes two classes every 8 weeks; these classes meet one evening per week and Saturdays for a total of 10-12 units each semester. If you are interested in joining the ACE program visit us online at arc.losrios.edu for current information sessions dates.

Advantages of the ACE program include:
• Continue working while you complete your educational goals
• Join a highly motivated group of adults with similar goals
• Work towards an A.A. degree
• Prepare to transfer to a university
• Receive individual counseling support to help you along the way
• Qualify for more job advancement opportunities

Admissions & Transition Services
(Formerly Enrollment Service)
(916) 484-8261

Services include enrollment verification, admissions and records forms, official transcripts, residency reclassification and graduation.

APISC - Asian Pacific Islander Student Connection
(916) 484-8489

APISC provides support, resources, and advocacy to Asian American and Pacific Islander students. APISC works collaboratively with the PRISE learning community to empower API Students to succeed academically, personally, and professionally.

Assessment Center
(916) 484-8423

All first-time college students and those who plan to register/enroll in English writing, or math courses receive placement results based on their high school academic records or a guided self-placement tool. ESL (English as a Second Language) students receive their placement results based on assessment tests completed at the college. Placement results are used by academic counselors to determine readiness for specific courses and programs. For students who are required to complete assessment tests, there are no fees for testing. Most placement results can be found in the student’s ARC eServices portal account under “Steps to Success”. ESL test results are available in the Assessment Center within 3 working days and in the student’s ARC eServices portal account in one additional day. Students must complete the online college application process and have a Los Rios student ID number prior to testing/assessment.

A valid photo ID (school or government issued) is required for testing. After you have completed the Online Orientation and Assessments, counselors are available to help you create your student educational plan (iSEP). The Assessment Center also provides testing for mathematics competency which may satisfy the requirement for graduating with an Associate degree. Office hours and testing schedules are available online at arc.losrios.edu.

Note: High school academic records may be used to determine placement for English writing and math. Students who have tested previously, and graduated from high school within the last 10 years, are encouraged to submit a Placement Re-evaluation Petition to the Assessment Center to have their placement re-evaluated.

Beacon Program
(916) 484-8918

The Beacon program provides academic assistance via regularly scheduled, out-of-class, peer-facilitated group study sessions. Beacon tutors are key people in the program; they are recruited by ARC faculty. The tutors have demonstrated competence in the course(s) they tutor and are trained to facilitate learning.

The Beacon sessions are comprised of students of varying academic abilities. Beacon is not viewed as remedial. Students who attend Beacon sessions discover appropriate application of learning strategies, like note taking, graphic organization, questioning techniques, vocabulary acquisition, problem solving and test preparation among others.
CalWORKs Support Services
(California Work Opportunity and Responsibility to Kids)
(916) 484-8059
The CalWORKs office promotes education to career through services and support for students who are currently receiving CalWORKs/TANF (Temporary Assistance to Needy Families) cash aid from the county. The college offers a wide variety of county approved academic programs that prepare students for a competitive workforce. In collaboration with our college and community partners, CalWORKs helps students move towards economic self-sufficiency through the attainment of higher education by offering educational planning, work study opportunities, career preparation and a variety of other support services.

Career & Pathways Support Services
(916) 484-8492
Offers a wide variety of career resources and services at no cost to ARC students and alumni. The CAPSS Office assists students in planning for college, identifying career options, researching current job openings, and preparing for employment.

Career Center Services include:
• Career assessments
• Career Counseling
• Career Expos
• Employment-related workshops
• Specific career-related events
• Résumé
• Evaluations
• Interview preparation

CL&D - Center for Leadership & Development
(916) 484-8471
The Center for Leadership and Development coordinates student activities and leadership opportunities for the campus and fosters an inclusive campus community by providing support services and information about:
• Access Card (student ID card) and Universal Transit Pass (light-rail and bus pass)
• Associated Student Body offices
• Club activities and student involvement opportunities
• Distribution of materials/poster approval
• Meditation and Reflection Space
• Off-campus housing - ARC does not provide residence housing. However, the CL&D provides information on roommates, shared housing, and available rentals.

Note: The college does not screen, approve, or endorse student housing options.

A major responsibility of the Center for Leadership and Development is to provide guidance and support services to:

Associated Student Body (ASB)
The Associated Student Body (ASB), through the approved charter, is the recognized body of student leadership that represents and advocates for students. The ASB supports the development of student’s leadership skills and fosters opportunities for students to engage with the campus community. The ASB maintains the link between the students and the administration, faculty, classified support staff, and the Los Rios Board of Trustees.
The ASB is comprised of the Clubs & Events Board (CAEB), the Student Senate, and the Joint Budget Committee (JBC). Participation in the ASB is a valuable educational experience that is available to all students who meet eligibility requirements.

Clubs and Organizations
Chartered clubs on campus are organized around various special interests and promote participation in a variety of cultural, academic and social activities. Membership is open to all interested students who meet eligibility requirements. Being a part of a club is a great way to build friendships, gain leadership skills, and create a sense of belonging.

SAGES (Student Ambassador)
SAGES are student leaders who serve as guides and facilitators of information between and among students, staff, and administrators. SAGES work in the Center for Leadership and Development (CL&D) through ARC’s Equity, Programs and Pathways Department. These student ambassadors serve as guides, connecting students with campus programs and services as well as assisting with event planning, CL&D operations, and campus and community outreach.
Child Development Center
(916) 484-8651
American River College operates child care programs that are licensed by the Department of Social Services and accredited by the National Association for the Education of Young Children. The center is for student-parents who are continuing their education as well as the children of staff and faculty. Student-parents who meet eligibility requirements regarding income and need, as established by the State Department of Education/Early Education and Support Division, may receive free or low-cost child care and preschool.

Program options include part-time or full-time, mornings and afternoons. There are multiple classrooms which serve toddlers and preschool children. Space is limited; therefore, we are unable to guarantee child care and we recommend that you have alternative child care plans.

The ARC Child Development Center also serves as a teaching laboratory for students in early childhood education, child development, child psychology, speech-language pathology and nursing programs. The center is staffed by Child Development Permitted Teachers, who plan and implement developmentally-appropriate curriculum.

College Store
ARC Main Campus (916) 484-8111
Natomas Center (916) 485-6060
The college store (Beaver Bookstore) at American River College is a self-supporting entity owned and operated by the Los Rios Community College District. The bookstore carries textbooks, class materials, and a wide variety of merchandise. Net profits are used to support instructional related programs and projects on campus.

Connect Center (Welcome & Support Center)
(916) 484-4537
All New Students start here!

The Connect Center’s primary focus is to assist students in the completion of their application, orientation, and enrollment services. The Connect Center helps with connecting and referring students to college programs, and resources; such as, Achieve@ARC, Get Connected Workshops, and Strive2Thrive.

Counseling & Transfer Services
ARC Main Campus (916) 484-8572
McClellan Center (916) 570-5000
Natomas Center (916) 485-6000
Counseling & Transfer Services provides a wide range of academic, career and short-term personal counseling to help students successfully reach their goals. Counselors are available to provide:
- Educational planning and academic counseling
- Transfer planning and information about guaranteed transfer programs
- Information about majors and instructional programs available at ARC
- Information about and/or referral to student support services and programs
- Information about and/or referral to community resources
- Career counseling and career planning

Counselors are available to assist students in identifying their needs, assessing strengths, and overcoming barriers. Counselors may also assist students in the selection of appropriate programs of study relative to their chosen objectives. Educational objectives may include completion of a vocational program, transfer to four-year colleges and universities, enhancement of employment skills, or improvement of basic skills.

Counseling services are offered to day and evening students. Appointments may be made by telephone, online at arc.losrios.edu, or in person. Counselors are also available on a drop-in basis in the Counseling Center, located in the east wing of the Administration Building.

DSPS - Disability Services & Programs for Students
(916) 484-8382
Deaf/Hard of Hearing Services
Video Phone: (916) 484-8798 Fax: (916) 484-8888
The goal of Disability Services & Programs for Students is to promote equal access to programs, services and facilities at American River College, thereby ensuring that students with documented disabilities experience the opportunity to participate fully in campus activities. The philosophy of DSPS is to encourage maximum independence and personal empowerment through a successful educational experience.

DSPS provides a variety of support services, including specialized counseling, adaptive equipment, course materials in alternate formats, sign language interpreters, in-class support and testing accommodations. Services are provided to meet the individual needs of students with disabilities to help them achieve successful completion of their college goals.
**Dusty Baker Student Athlete Resource Center**  
(916) 484-8041

The support team in the Dusty Baker Center assists student-athletes in achieving their academic and athletic goals by providing them with the following services:

- Academic & Athletic Counseling
- Athletic eligibility checks
- Time Management & Study Skills support
- Connections to academic support services
- Graduation and Transfer Guidance

**ESL - English as a Second Language Center**  
(916) 484-8919

The ESL Center courses enable English as a Second Language students to develop, expand and reinforce the multiple English language skills needed for academic, career, and personal success. Students work independently on a variety of skill areas that they choose and get help from our instructors and tutors. Study materials are available for beginning, intermediate and advanced levels (ESL 30 – 350). Students earn credit by completing workbooks, computer-based modules, small group conversation practice, or multi-media courses, attending the required number of hours for the units requested. Attendance times and days are flexible. Late registration is allowed if space is available. A four-week ESL Center program is offered during the summer.

**Food Pantry**  
(916) 484-8471

The Beaver Food Pantry is a pop-up pantry that distributes fresh produce and bread. This service is open to all ARC students, faculty, and staff. Distribution is on a first come, first served basis while supplies last. The Beaver Food Pantry was started in late fall 2017 in collaboration with the Sacramento Food Bank and Family Services. For dates/times visit [arc.losrios.edu](http://arc.losrios.edu)

**EOP&S - Extended Opportunity Programs and Services/CARE/NextUp Program**  
(916) 484-8128

EOP&S is designed and funded by the State of California and the district to recruit and assist college students who show academic and financial need. EOP&S promotes student success with enrollment assistance, educational planning, tutoring and limited financial assistance. Participation is limited to California residents who are eligible to receive the Board of Governors Grant and have an academic need.

**CARE (Cooperative Agencies Resources in Education) Program**  
EOP&S-eligible students, who are single parents, head of household, parent or child currently receiving CalWORKS/TANF and have a child/children under the age of 14 at time of acceptance, may also be eligible to participate in the CARE program.

**NextUp (Cooperating Agencies Foster Youth Education Support)**  
EOP&S-eligible students, have dependency established or continued by the Court on or after their 16th birthday in California, be no older than 25 years of age at the beginning of the academic year, enroll in at least 9 units. Support services include enrollment assistance, educational planning, and tutoring. For more information visit the EOP&S website.

**Financial Aid**  
(916) 484-8437

Funds are provided to eligible students who have documented financial need in accordance with state and federal regulations. You may be eligible for various forms of financial aid including California College Promise Grant (formerly Board of Governors or BOG Fee Waiver), grants and loans. For further information, please visit the Financial Aid Office.

**Health Center**  
(916) 484-8383

The ARC Health Center provides health care and education to ARC students and staff to support their academic and life goals. Health care is provided directly by Registered Nurses and/or indirectly through educational materials and referrals to community resources. Positive living is fostered by promoting wellness, both physical and emotional. There are no on-site physician services. The nursing staff may assess health concerns and make referrals to physicians, health agencies, etc. as needed. They cannot, however, make medical diagnoses or prescribe treatment. All services except for TB testing, immunizations, and titers are free.
The HUB
(916) 484-8489

The Hub is ARC’s community space focused on supporting and building community among students coming from underserved and disadvantaged backgrounds in higher education. The Hub is an affirming and intersectional space that supports students who have been historically and are currently disadvantaged and marginalized in higher education. The Hub represents many groups, populations, and identities, and all people are welcome. The Hub intentionally challenges systemic injustices, recognizes the complex and whole students, and is committed to supporting students through their entire educational journey.

International Student Program
(916) 484-8774

American River College welcomes international students from all over the world. Students who enter the U.S. on a F-1 visa are considered international students. ARC is approved by the U.S. Immigration and Customs Enforcement to issue an I-20 for the F-1 Visa. The International Student Program offers assistance with the admissions process, enrollment, required documents, immigration policies, maintaining F-1 regulations, and fees. The International Student Program also provides new students with a comprehensive on-campus orientation, follow-up services, retention activities, and access to a variety of campus resources.

For more information, visit us online at arc.losrios.edu or contact our office at (916) 484-8774.

LD - Learning Disabilities Program - DSPS
(916) 484-8938

The Learning Disabilities Program is part of the Disability Services & Programs for Students (DSPS). The goal of these programs is to promote equal access to programs, services and facilities at American River College, thereby ensuring that students with documented disabilities experience the opportunity to participate fully in campus activities. Our philosophy is to encourage maximum independence and personal empowerment through a successful educational experience. These services are provided at no cost to qualified students.

These programs provide a variety of support services, including specialized counseling, comprehensive education plans, learning disabilities assessment, and study strategies sessions. Interpreters for the deaf and hard of hearing, as well as adaptive software technology and alternative media services are available, including brailling services for textbooks and where print disabilities exist. We provide test proctoring services and accommodations, as well as note takers on an as-needed basis.

LRC - Learning Resource Center
ARC Main Campus (916) 484-8693
Natomas Center (916) 485-6063

The Learning Resource Center (LRC) is an instructional facility which 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.

Programs and services within the LRC building include: Beacon Program, English as a Second Language (ESL) Center, Reading Across the Disciplines (RAD), Student Tech Center, Tutorial Center, and Writing Across the Curriculum (WAC).

For detailed information on these programs and services see these specific programs in this section of the catalog. Note: See the Learning Resource Center Department page for Tutor Training courses.

Library
(916) 484-8455

The Kenneth Boettcher Library offers a welcoming learning environment that supports study, research, exploration, and academic growth. The library provides a full spectrum of library services and resources to students, including materials and instruction designed to help students find high-quality information and learn the research skills necessary to succeed in college and beyond.

Also available are library courses that cover introduction to library resources and advanced research skills. The library is a popular study spot on campus, offering both individual and group study spaces, a large computer lab, and wi-fi access throughout the building.

MMLC - Math Multimedia Learning Center
ARC Main Campus (916) 484-8632
Natomas Center (916) 485-6067

The MMLC provides students the opportunity to complete their basic math and/or algebra requirements under the direction of an instructor using a mastery-based, independent study approach. Mandatory weekly class meetings and mandatory independent work between class meetings are required for student success. Computer-based instruction via the internet is an integral part of the course. Students may also visit the MMLC during other hours of operation to receive tutoring, complete assignments, and take exams. Each course may be completed as quickly as possible but no later than the end of the semester. Students who complete one course during the first half of the semester may sign up immediately for the next course.
Pride Center - LGBTQ
(916) 484-8146

Located at American River College’s Student Center, inside the HUB, the Pride Center provides a safe and inclusive campus environment for students, staff, faculty and community members by building an understanding of sexual orientation, gender identities, and gender expression. The Pride Center disseminates information, challenges and dismantles negative stereotypes, and serves to facilitate dialogue about marginalized orientations, gender identities, and intersex in a non-judgmental atmosphere.

The Pride Center also actively engages in addressing the intersections among sexism, heterosexism, transphobia, racism, classism, ageism, ableism, and other negative prejudices used to marginalize traditionally underrepresented groups by working in partnership with other campus groups. Further, the center advocates for improvements in our campus climate regarding LGBTQ issues and our students’ success.

P.R.I.S.E - (Pacific Islander/Southeast Asian Resilience Integrity and Self-Determination through Education)
(916) 484-8489

P.R.I.S.E is a Pacific Islander/Southeast Asian Learning Community that aims to increase academic success through the integration of culturally responsive curriculum, academic support, and personal and cultural enrichment activities. All courses in the P.R.I.S.E Learning Community are taught with a Pacific Islander and/or Southeast Asian Emphasis. PRISERs are connected with a peer mentor, academic counselor, and community mentor to support their academic journey. Other activities include fafefonos (student community building time and workshops), college tours, and more! All students are welcome to apply.

PUENTE Project
(916) 484-8547

The PUENTE Project’s mission is to increase the number of educationally underrepresented students who enroll in four-year colleges and universities, earn degrees, and return to their communities as leaders and mentors to future generations. PUENTE students meet regularly with a PUENTE counselor and are matched with a professionally and academically successful mentor from the community. Students also attend field trips to college campuses. All students are welcome to apply.

RAD - Reading Across the Disciplines Center
ARC Main Campus (916) 484-8053
Natomas Center (916) 485-6063

The RAD program helps students meet their academic goals by improving their reading strategies and test-taking skills. RAD students learn to annotate textbooks and research materials, paraphrase key ideas, create outlines and maps based on their class materials, read and understand graphics, master jargon, and prepare for tests. During the one hour class meetings, students work in small groups or one-on-one with a RAD instructor or Instructional Assistant on applying reading and study strategies to their textbook/class material.

SSC - Science Success Center
(916) 484-8204

The Science Success Center offers individualized instruction in reading and study strategies geared to support students’ efforts in their science courses. Instructors, instructional assistants, and tutors meet with students weekly during a 30-minute one-on-one session to discuss different learning strategies and assist students with individualized instructional modules. The selection of modules may vary depending on student need and skill level.

STEM Center (formerly MESA)
(916) 484-8662

The ARC STEM Center is the place on campus for students in the STEM disciplines to find support, resources and a community of students with similar goals and interests. Students preparing for careers as professionals in biology, chemistry, physics, earth and environmental sciences, mathematics, engineering, or computer science are encouraged to join. Students who are preparing for health care careers where calculus is a required study topic, such physicians, pharmacists, and various technical fields should also become part of the ARC STEM Center community. Resources include individualized tutoring, study groups, and information on scholarships and summer research programs. Students can consult with a counselor dedicated to supporting STEM students, and multiple resources are designed to help students successfully transfer to a four-year institution.

Student Tech Center
(916) 484-8667

Providing technical support for all ARC students with the following services: Assistance with Los Rios online services, connecting to the LRCCD wireless network, accessing Canvas and course assignments, Log-on issues, Help with expired or forgotten password and locked accounts, assistance with installing Microsoft Office 365. Assistance in identifying and resolving software and hardware technical issues.
Transfer Center
(916) 484-8685
The mission of the Transfer Center is to help students and staff become aware of the many transfer options available and provides the most current information to ensure a smooth transition to four-year institutions. See the Transfer section of this catalog for detailed information.

TRIO Student Support Services (SSS)
(916) 484-8487
TRIO SSS Journey
TRIO SSS Journey is a federally funded Student Support Services program designed to help first-generation, low-income students, including students with disabilities, who have a goal to transfer to a four-year college or university. Journey provides students with a rich variety of services designed to provide academic, personal, and social support to achieve their dreams.

TRIO SSS STEM
The ARC TRIO Student Support Services STEM (Science, Technology, Engineering and Math) program is federally funded and designed to support student success and transfer to 4-year colleges and universities. This free program provides services and academic and social supports to traditionally underrepresented student populations who are majoring in Science, Technology, Engineering or Math.

TRIO SSS Veterans
TRIO SSS Veterans will provide services to eligible ARC Veterans. The goal of the program is to motivate student Veterans toward the successful completion of their post-secondary education, to increase college retention, and facilitate the transition from one level of higher education to the next. Our TRIO main office is located in The Hub and we are connected to every department on campus. TRIO services for Veterans will be offered through the Veterans Resource Center.

Tutorial Center
(916) 484-8808
The Tutorial Center provides individual appointments, drop-in, and online tutoring for ARC enrolled students who need academic assistance outside the classroom. Tutoring is conducted by ARC instructor approved student tutors and instructional assistants. Students interested in becoming individual tutors must demonstrate proficiency in a specific subject and would need to enroll in the tutor training course LRC 300 to be hired as student tutors for the Tutorial Center.

All student tutors must maintain an overall GPA of 3.0 and be enrolled in a minimum of 6 units at ARC. Tutoring is provided in a supervised setting in the Tutorial Center, located inside the Learning Resource Center (LRC).

UndocuScholar Resource Connection
(916) 484-8489
The ARC UndocuScholar empowers undocumented students, mixed family status students, as well as UndocuScholar allies by supporting their academic pathways, personal, and professional goals by providing individualized support and resources.

Umoja-Sakhu Learning Community
(916) 484-8572
The Umoja-Sakhu Learning Community at American River College is open to all students and is specifically designed to increase the retention and success rate as well as the graduation and transfer rates of African ancestry students. With emphasis on topics relevant to the African Diaspora and African American experience, learning community courses focus on improving reading, writing, math and critical thinking skills. The program also serves students not taking learning community classes through providing Umoja counseling services, Village Time, cultural and academic enrichment workshops, a student club, field trips and other events or services designed to increase student engagement and foster positive cultural identity and a sense of belonging. Interested students should visit the program website for more information about how to become a part of this dynamic community.

UNITE - Community & Diversity Center
(916) 484-8948
UNITE creates collective space for students of color (African-American/Black, Asian American and Pacific Islander American, Latinx, Native American, Multiracial, Middle Eastern, and other underserved racial and ethnic groups) to find a community support system, engage in cultural learning, and gain advocacy to succeed in their academic, career, and personal lives. UNITE promotes a better understanding and awareness of the everyday student experience through collaborative partnerships across the campus community. Additionally, UNITE provides a welcoming and inclusive environment that engages in brave dialogue about diversity, social justice, and equity.

Unite offers support, advocacy, and leadership opportunities for and about disproportionately impacted communities. All programs for UNITE focus on critical consciousness and analytical thought, social justice education within the community, student equity, seamless educational pathways, and cultural empowerment and enrichment for the ARC community.
VRC - Veterans Resource Center
(916) 484-8135

The Veterans Resource Center assist Veteran students and their families with their ARC educational and VA related needs. The center provides an array of specialized support services and opportunities to assist Veterans in achieving their goals. Our peer mentors offer personalized services to Veterans and their dependents, including assistance with registration, campus tours, and Veteran-specific information. We provide academic, personal, and career counseling, weekly support groups, campus and community service referrals, student success workshops, a computer lab, and opportunities to network with other Veterans through the Veterans Club. In addition, a full time vocational rehabilitation counselor with the U.S. Department of Veterans Affairs is on staff in the VRC and is dedicated to provide guidance, information, and resource referrals.

Students may apply for evaluation of military service for college credit. A copy of the DD form 214 must be submitted for credit to be awarded. Veterans, reservists and active duty service members may also qualify for priority enrollment, as stipulated in the California Education Code, section 66025.8.

VA certifying officials located in the VRC assist students by appointment to verify enrollment to the Department of Veterans Affairs. Students who are applying for VA education benefits must contact the VRC and provide required documents and transcripts from other colleges for evaluation. Continuing students are required to submit their schedules each term for which they wish to receive payment. It is advisable to submit all paperwork and class schedules immediately after enrolling in courses.

TRIO SSS Veterans
TRIO SSS Veterans will provide services to eligible ARC Veterans. The goal of the program is to motivate student Veterans toward the successful completion of their post-secondary education, to increase college retention, and facilitate the transition from one level of higher education to the next.

WAC - Writing Across the Curriculum Center
ARC Main Campus (916) 484-8802
Natomas Center (916) 485-6061

The WAC program helps students from all academic disciplines improve their writing skills. Students learn to apply more effective prewriting, drafting, revising, and editing strategies. Students receive assistance with writing assignments for all classes. Students may also receive help with personal statements for scholarships and college transfer.

College Hour
Every Thursday at noon, the college schedules fewer classes in order to leave open time for special events, speakers, workshops and other activities.

Student Publications
The Current, the college newspaper, is published both in print and online (arcurrent.com) by student staff, and the American River Literary Review is published each spring by students in English and Art New Media.
• Educational Progress
• Admissions Information
• Attendance Requirements
• Academic Standards
• Grades and Credit
• Regulations on Course Repetition and Repeatability
• Academic Honors
• Academic Probation
• Progress Dismissal
• Student Petitions
Educational Progress

American River College’s academic standards and resources are intended to support a successful learning experience for all students.

We offer many services to help students achieve their educational goals. Students enrolled in degree or certificate programs are expected to demonstrate satisfactory academic progress as defined by the following three general policy requirements:

- **Minimum Grade Point Average**: Students must achieve and maintain the required grade point average.  
- **Credits Earned/Credits Attempted**: Students must complete a minimum percentage of attempted credits per semester.  
- **Degree or Certificate Completion**: Students must complete the degree or certificate at the required credit limit.

The college recognizes the unique and diverse backgrounds and needs of its students, and while all students are held to the same level of academic excellence, students with special circumstances may petition for special consideration. Students enrolled in special programs are also required to follow the requirements specified by their funding agency. In addition, students receiving federal and/or state financial aid must follow the Financial Aid Satisfactory Progress Policies.

Admissions Information

Auditing

Auditing (sitting in a class without enrolling for credit) is not permitted at any Los Rios Community College. All students must be enrolled and fees paid for all classes by the last day to add.

Residence Requirements

American River College is a public college under California law. The application for admission includes a statement of residence from which residency is determined. The law provides that a person can have only one residence. If you have resided in another state just prior to the residence determination date (the first day of the semester) – even if you had been a California resident previously – you may be considered a nonresident for purposes of enrollment fees. Residency is determined at the point of admission once a completed application is submitted to the Enrollment Services Office.

Out-of-state students may apply for reclassification to California resident by completing a reclassification application and providing sufficient documentation to support California residency. State requirements to become a California resident are described in the California Education Code and California Code of Regulations (Title 5).

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

1. physical presence in California,  
2. intent to reside in California permanently, and  
3. financial independence.

Students who have completed 3 years at a California high school, and graduated, may be eligible for an exemption from non-resident tuition. Please see the Enrollment Services office for the reclassification application and instructions.

If a student is erroneously determined to be a nonresident, and pays a tuition fee, the fee is refundable, provided acceptable proof of state residence is presented within the period for which the fee was paid. Refund requests will be processed only if accompanied by the receipt issued at the time of payment.

Fees are subject to change without notice upon approval by the trustees of the Los Rios Community College District, and pending approval by the state legislature and governor.

A nonresident student who has falsified residency information shall be excluded from classes upon notification, pending payment of the nonresident fee. Written notification may be given at any time. Students excluded because of falsification shall not be readmitted during the semester or summer session from which they were excluded, nor shall they be admitted to any following semester or summer session until all previously incurred nonresident tuition is paid.

Military Personnel and Dependents

Military personnel who are stationed on active duty in California and their eligible dependents are granted resident classification. This resident classification will continue for the duration of the student’s continuous enrollment. Please contact the Enrollment Services office if you qualify for this classification.

All New Transfer Students

All new transfer students, except those transferring from Cosumnes River, Folsom Lake, and Sacramento City colleges, should complete the steps listed for first-time college students. Instead of a high school transcript, transfer students are advised to mail official transcripts of all other previous college work to the Enrollment Services Office.
Concurrent Enrollment
Students enrolled at American River College may concurrently enroll for college credit at another institution. Students requesting to have completed units considered towards a degree or certificate at American River College must submit an official transcript to Enrollment Services. Concurrent enrollment at another accredited college may impact a student’s eligibility for financial aid at American River College.

Attendance Requirements

Excessive Absences
The Los Rios Community College District (LRCCD) attendance requirements are as follows: Per Policy P-2222, 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. Any student who is a no show shall be dropped from a class (CA Code of Regs., Title 5, 58004).

Non Attendance at First Class
As stated in LRCCD Regulation R-2222, students who fail to attend the first session of a class may be dropped by the instructor.

Excessive Absence Defined
As stated in LRCCD 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 absence for that course.

No Shows
As stated in LRCCD R-2222, students who fail to attend the first session of a class may be dropped by the instructor.

In addition, students who have not attended at least one of the first three sessions of a class will be dropped as a “no show” following the third session of the class per Title 5 section 58004. If a class is scheduled for only one session per week, then students who have not attended at least one of the first two sessions of a class will be dropped as a “no show” following the second session of the course.

Change of Address or Name
Students must report a change of address immediately to Enrollment Services. Students will be held responsible for all misdirected mail if the address change was not provided. Change of name, social security number, and other information that would affect your student record must be reported in writing to the same office with the proper documents to substantiate the change.

Academic Standards

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 Credit

Academic Load
Per LRCCD Regulation R-7211, fifteen (15) units each semester is considered a full college load. Twelve (12) units each semester is a minimum full-time load and is usually acceptable to qualify for scholarships, grants, loans and holding student offices.

Eighteen (18) units per semester is a maximum load. Unit limit shall be 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 District-wide through this process.

Eight (8) units per summer session is a maximum load. Unit limit shall be 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 District-wide through this process.

Credit/Unit
The course grants units of credit based upon a relationship specified by the governing board between the number of units assigned to the course and the number of lecture and/or laboratory hours or performance criteria specified in the course outline. The course requires a minimum of three hours of student work per week, per unit, including class time and/or demonstrated competency, for each unit of credit, prorated for short-term, laboratory, and activity courses.
**Grades and Grade Point Average (GPA)**

At the end of each semester or term, the college reports students’ grades for every enrolled course. The grading standards, with their grade point equivalents, are as follows:

- A: Excellent, 4 grade points per unit.
- B: Good, 3 grade points per unit.
- C: Satisfactory, 2 grade points per unit.
- D: Passing, less than satisfactory, 1 grade point per unit.
- F: Failing, 0 grade points, no units earned.
- CR: Credit (C or better), not computed in GPA but affects progress probation and dismissal.
- *P: Pass (C or better), not computed in GPA.
- NC: No Credit (less than C), not computed in GPA but affects progress probation and dismissal.
- *NP: No Pass (less than C), not computed in GPA but affects progress probation and dismissal.
- I: Incomplete, has not completed all the work for the class and instructor has agreed to allow student to complete work at a later date, at which time a final grade will be assigned. An Incomplete is not computed in GPA, but affects progress probation and dismissal. Student has one year in which to complete the coursework.
- IP: In-progress, the course is longer than a semester and a student must re-enroll in the course the subsequent semester. When you have finished the course, the grade will be changed to A-F and units earned.
- W: Withdrawal, The student has been officially dropped from the class by the deadline shown in the calendar elsewhere in this schedule. A “W” is not computed in your GPA, but affects progress probation and dismissal.

* Courses taken prior to June 30, 2008 will be noted on the student records as CR/NC (Credit/No Credit). Courses taken July 1, 2008 and in the future will be noted as P/NP (Pass/No Pass), per Title 5 section 55022.

**Credit/Pass – No Credit/No Pass Grading**

A student may elect that one course per semester be graded on a credit/pass or no credit/no pass basis. A petition to take a class credit/pass – no credit/no pass must be filed with Enrollment Services by the deadline as specified online. The equivalent of an A, B, or C received for the course will be recorded as CR/P, with units earned. The equivalent of a D or F will be recorded as NC/NP, with no units earned. Units attempted for credit/pass – no credit/no pass grades are not computed in the grade point average, but are used for determining progress probation and progress dismissal.

A student who has elected to be graded on a credit/pass – no credit/no pass basis may not have the CR/P or NC/NP changed to the letter grade (A, B, C, D, F). A maximum of 20 elected credit units may be applied toward the Associate in Arts or Science degree.

**Grades of Incomplete**

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

**Grades of In-progress**

A grade of “in-progress” indicates that a course is still in progress and a final grade has yet to be assigned. A student receiving an in-progress grade must re-enroll in the course in the subsequent semester. Failure to re-enroll will result in an evaluative (letter) grade being assigned in lieu of the in-progress.
Withdrawal from Class or College

A student may officially drop a class without notation on the permanent academic record/transcript prior to the point in which 20% of a class has occurred. Withdrawals occurring after this time, and before the point in which 75% of the class has occurred, shall result in a “W” notation on the permanent academic record/transcript. These important dates (including start/end dates, drop/add dates) are available on the college website arc.losrios.edu. View the Registration Guide of the corresponding term for more information.

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

Leave of Absence

Per LRCCD Policy P-7243, students may petition for leaves of absence from a college of the Los Rios Community College District in order to maintain catalog rights to a specified degree requirement option (See: Catalog Rights Policy P-7242).

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

As stated in LRCCD Regulation R-7243, a petition for leave of absence should be filed in advance whenever possible. Students requesting a leave of absence during a semester must follow campus withdrawal procedures. Students applying for medical leave of absence must furnish a statement from the attending medical physician explaining the necessity for the student to interrupt enrollment. Students applying for military leave of absence must furnish a copy of the military orders inducting service.

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.

Withholding Student Records

The college reserves the right to withhold student transcripts and records and to deny future enrollment for any outstanding student obligation, such as: nonpayment of fees; outstanding debt or missed payments on Federal student aid, Cal Grant, Federal student loan; or fines for overdue books within the Los Rios district. The college reserves the right to evaluate high school diploma(s). The Vice President of Student Services or his/her designee may, at any time, request a copy of a high school transcript or other documentation to validate the authenticity of the high school diploma. The decision of the Vice President of Student Services or his/her designee is final and cannot be appealed. As provided in the Federal Register (Section 668.16) the college may withhold Financial Aid funds or require the student to take and pass an Ability to Benefit test as a requirement for receiving Financial Aid. You are advised to clear all debts and other holds on your record prior to enrolling in classes.

Credit by Examination

Under special circumstances and with department approval, students regularly enrolled and in good standing who believe they are qualified by experience or previous training may take a special examination to obtain credit in a course in which they are not formally enrolled. A student who wishes to challenge a course by examination must have successfully completed a minimum of 12 units at American River College with a grade of “C” or better.

The units may not be used to satisfy the 12 unit residence requirement for graduation. A maximum of 15 units may be allowed by examination.

Note: Credit by examination is not applicable to all courses, and in some instances the process may require measures of evaluation. A student seeking credit by examination should consult the dean of the appropriate area to determine if credit by examination is allowed for a particular course.
Regulations on Course Repetition and Repeatability

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

Course Repetition to Clear a Sub-Standard Grade

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

Repeatable Courses

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

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

Non-repeatable Courses, Petitioning for an Exception

There are a few special circumstances that allow students to complete the petition process to repeat a course that does not meet any of the criteria listed in the section above. These include:

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

Limitations on Active Participatory Courses (course families)

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

Students are limited to taking a maximum of four courses in any one “family” across all four Los Rios colleges, regardless of how many courses there are; sometimes a “family” of courses may include more than four. For example, the Modern Dance Technique family of courses across the four Los Rios colleges includes five courses – DANCE 330 through DANCE 334 (Modern Dance I, II, III, IV, and V).
In addition, if a student gets a sub-standard grade (a notation of D, F, NC (No Credit), NP (No Pass), or W (Withdrawal)) in any course within a family, the sub-standard grade counts as one of the four course limitations in the family. The list of families of courses is available in the Admissions and Records Office at each college. Please consult with a counselor for more information.

State regulations have eliminated community college students’ ability to take certain active participatory courses more than one time. Active participatory courses are those courses where individual study or group assignments are the basic means by which learning objectives are obtained and include courses in physical education (Kinesiology/Athletics), and visual and performing arts (theatre arts, music, and art). Therefore, if students attempt to enroll in a course that they have already completed at any college in Los Rios with a grade notation of A, B, C, CR (credit) or P (pass), the students will be sent a notice that they have been removed from the course and cannot re-enroll in the same course at any Los Rios college.

Some active participatory courses have been put into groups based on similar content. For a list of these courses go to losrios.edu. For example a group could consist of the following courses: Tennis I, Tennis II, Tennis III, Tennis IV, and Doubles Tennis. Students may take a total of 4 courses in a group at any Los Rios college. Once students have completed 4 courses in a group, they will not be allowed to take any other courses in that same group at any Los Rios college.

Note: Although groups may have more than 4 courses, students may only take a total of 4 courses from the same group. Students who completed 1 or more courses in the same group prior to summer 2014 will have those courses count toward the total 4 allowable courses. For purposes of the 4 course limit within a group, each A, B, C, D, F, CR, P, NC (no credit), NP (no pass), or W (withdrawal) grade notation counts toward the 4 course limit.

Academic Renewal Without Course Repetition

A student may petition to have previous substandard work, (D’s, F’s, NC’s or NP’s), earned at American River College discounted. Courses and grades which 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. The following conditions must apply:

1. A minimum of 12 consecutive months shall have elapsed since the end of the semester or summer session in which the work to be alleviated was recorded; and a minimum of twelve (12) semester units (or its equivalent) with a grade of C or Credit/Pass or better shall have been attained. The coursework must have been completed at a regionally accredited college.
2. Current educational objectives must be discussed with a counselor and the counselor’s recommendation must be included on the petition.
3. No more than 30 units of substandard grades may be discounted.
4. Under no circumstances may course work be discounted if it was used to fulfill requirements for a degree or certificate that has been granted.
5. 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.
6. Questions regarding this policy should be directed to the Dean of Enrollment Services.
7. Once elected, the academic renewal cannot be reversed.
8. Academic Renewal is not intended for courses that are required and/or will be repeated.

Academic renewal petitions are available in the Counseling Center.

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 1-99. Students may petition for a waiver to the thirty-unit limitation through a counselor. However, federal financial aid does not allow a student to receive aid for more than 30 remedial units.
Academic Probation
A student is placed on academic probation if the student has attempted at least 12 units and earned a grade point average below 2.0 in all units that were graded. A student on academic probation may be subject to counselor intervention.

Progress Probation
A student who has enrolled in a total of at least 12 semester units is placed on progress probation when the percentage of all units in which a student has enrolled, and for which entries of W, I and NC/NP are recorded, reaches or exceeds 50 percent of all units attempted. A student on progress probation may be subject to counselor intervention.

Unit Limitation
A student on either academic or progress probation may be limited to 12 or fewer units, or to a course load recommended by the student's counselor.

Removal from Probation
A student on academic probation is removed from probation and acquires good standing when the student's cumulative grade point average (GPA) is 2.0 or higher. A student on progress probation is removed from probation and placed in good standing status when the percentage of units with entries of W, I and NC/NP drops below fifty (50) percent of all units attempted. To see how GPA and progress percentage are calculated, see Grades and Grade Point Average (GPA) in Educational Progress section.

Academic Dismissal
A student on academic probation is subject to dismissal when the student earns a cumulative grade point average of less than 2.0 in all graded units in at least three successive terms.

Progress Dismissal
A student on progress probation is subject to dismissal if the percentage of units in which the student has been enrolled for which entries W, I and NC/NP are recorded reaches or exceeds 50 percent in at least three successive terms.

Readmission following Dismissal
A dismissed student may petition to the Dean of Counseling and Student Services for permission to enroll if the student feels that the cause for dismissal reflects extenuating circumstances or has been resolved. The burden of written documentation in support of these circumstances remains with the student. A dismissed student must see a counselor to initiate a student petition and satisfy other readmission requirements.

Academic Honors
The distinction of Honors and High Honors is noted on a student's transcript for each semester in which a student has enrolled in 12 units or more, and has earned a grade point average (GPA) of at least 3.0 (Honors) or 3.5 or higher (High Honors). Students earning High Honors will be notified by mail of their eligibility to join the college honor society.

Transcripts
A transcript is an official record of work completed at American River College, and is required for admission to other colleges and universities. The Los Rios Community College District has partnered with Credentials, Inc., to provide a secure and easy-to-use service for ordering transcripts online. This online request service is provided to students and alumni for any of the Los Rios colleges. Transcript information is available online at arc.losrios.edu.

Purpose of the ARC Student Petitions
The student petitions provides students an opportunity to request action that is normally not permitted by state law, district policy or college practices and procedures. The petition is limited in scope to issues related to a student's admission, enrollment, and academic standing. Use the student petition form to request:

- Enrollment in classes with time conflicts
- Approval of an unauthorized repeat of a course.
- Exceed maximum allowable unit load (18 per semester; 8 per summer session)
- Add or Drop of a class after deadline
- Course substitutions
- Withdraw from college on medical or military leave and retain catalog rights

Where to get the petition forms
Obtain the forms at Enrollment Services, eServices Registration Lab, the Counseling Center or online. Outcomes of student petitions will be sent to students via LRCCD Gmail accounts.
• Campus Safety
• Education and Prevention
• Crime Statistics
• Reporting Crimes or Other Emergencies
Campus Safety

Safety at American River College is everybody’s business. Students, staff and faculty are partners with the college in creating an atmosphere that is safe and encourages learning. American River College is a diverse community within a community. During the school year, we have over 30,000 students, 370 full-time faculty, over 365 part-time faculty and a support staff of 223 working together. At the same time, the college is very much a part of the greater Sacramento metropolitan area.

The college, in accordance with its mission statement, is a community center for lifelong learning through education, cultural, and recreational programs. Many community members visit and use the services the college offers seven days a week. The college strives to be accessible to the community and welcomes the use of its facilities.

No community, of course, can be totally risk-free in today’s society. American River College strongly believes it has a major role in providing a safe learning environment, but, also, is realistic enough to recognize that students, staff and faculty must come together in a strong partnership and use common sense precautions to reduce the opportunity for criminal/anti-social activities. Crime happens in our society. We have no magical formula to stop it at our campus. Thefts, assaults and other crimes happen at American River just as at any other college campus.

To reduce the possibility that any student may be exposed to potential hazards, American River College has taken many steps, described herein, to reduce whatever risks there may be. All of us can further reduce risks by thinking about personal safety and taking common sense precautions.

Safety programs at American River College are under the direction of the Director of Administrative Services. We have a proactive approach to campus safety that is best viewed as education, prevention and our ability to respond to suspicious events.

Education

The key to crime prevention is an awareness gained through education. At American River College, Los Rios Police department, staff, faculty and students work together and take responsibility for their own safety and are ready to help others in time of need. This is a very potent force.

The vast majority of incidents on college campuses can be avoided if the college population recognizes they are potential victims and take basic precautions, such as using the “buddy system” when walking at night, locking car doors and not leaving valuables unattended. The Los Rios Police department is available to meet with groups or individuals and discuss anti-crime tactics or any anti-social activities.

American River encourages reporting of all crimes, even minor crimes, and any suspicious activity. The Los Rios Police department would rather have a hundred unfounded calls of suspicious activities than miss one call when a crime is occurring. We need to know about crimes that occur. If we are not informed of a crime, we cannot advise and help students and staff. Crimes occurring on campus should be reported immediately to Los Rios Police.

When appropriate, Los Rios Police will contact the Sacramento Sheriff’s department to conduct an investigation beyond the scope of their resources. A Los Rios Police report will be generated; a copy of the report will be made available to the reporting individual provided he/she is the victim of the crime. Officers may be contacted by telephone or by coming to the Los Rios Police office located just south of Davies Hall.

Los Rios police officers are available to address classes about prevention of crime. Additionally, the Associated Student Body has hosted forums on crime prevention at which outside experts as well as Los Rios police officers have offered common-sense approaches to avoid becoming a victim of a crime.

American River College offers a major in Chemical Dependency Studies which is accredited by the California Alcoholism and Drug Counselors Educational Program. American River College is committed to a drug-free campus. Violators will be subject to disciplinary procedures.

Forums are held throughout the year by the campus Health Center and Associated Student Body on issues of substance abuse. A special program, the Beaver Athletic Assistance Program, has been developed to offer support and advice to student athletes on drug and alcohol abuse. The college offers its facilities for weekly meetings of Alcoholics Anonymous and Narcotics Anonymous. These meetings are offered at times convenient for students and advertised widely to students.

This information is updated annually and is available to all students, employees and applicants. Additional information is available from Los Rios Police personnel. Any serious crime involving potential bodily harm will be reported promptly to staff and students.
Prevention
The college actively supports crime prevention through a number of programs. These include:

Emergency Automotive Assistance
Los Rios police officers and personnel are not mechanics but they are equipped and trained to start cars with dead batteries or unlock non-electric car doors when keys have been left inside the automobile. Proper identification is required for the performance of these services.

Lighting
A major effort has been made to upgrade the lighting in the interior of the campus to reduce areas of darkness. Continuing progress is being made on upgrading the lighting in campus parking lots.

Firearms
Firearms are not permitted on campus except for professional law enforcement officers. Persons with firearms on campus will be subject to arrest and disciplinary action. (LRCCD Regulation 2441)

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. (LRCCD Policy 2443)

Emergency Telephones
Outdoor emergency telephones are strategically located throughout the campus. These phones are marked blue and easily identified by a blue light. When accessed, these emergency telephones will automatically connect the caller to the Los Rios Police Dispatch Center.

Illegal Drugs
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. (LRCCD Policy 2441 and 2443)

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. (LRCCD Policy 2423)

Hate Violence
Any act of physical intimidation or physical harassment, physical force or physical violence, or the threat of physical force or physical violence, that is directed against any person or groups of persons, or the property of any person or group of persons because of the ethnicity, race, national origin, religion, sex, sexual orientation, disability, or political or religious beliefs of that person or group will not be tolerated. Appropriate action will be taken where evidence of hate violence is found.

Sexual Assault
In accord with California Education Code section 67385, students, faculty and staff who are victims of sexual assault committed at or upon the grounds of or upon off-campus grounds or facilities maintained by the college shall receive information and referral to treatment. The campus procedure relative to incidents of sexual assault is contained in student/staff handbooks, online and in the Counseling and Campus Health centers.

Computer Related Crimes
Tampering, interference, damage and unauthorized access to lawfully-created computer data and computer systems is a violation of Penal Code 502 (LRCCD Policy 2441.)

Response
The Los Rios Police Department employs P.O.S.T. certified police officers and community service officers who have public safety experience. Police officers are sworn and fall under California Education Code 72330 and California Penal Code 830.32. Officers are empowered to conduct campus related investigations and make arrests for violations and infractions they observe. They are responsible for providing a safe campus environment, detecting and reporting safety/fire hazards, enforcing traffic and parking regulations, and promoting crime prevention. All campus police officers have current certification in CPR and first aid.

The Los Rios Police Department coordinates its activities with the Sacramento Sheriff’s department. All officers are in radio communication with the Sheriff’s department while on duty.

This information is updated annually and is available to all students, employees, and applicants. Additional information is available from District Police personnel. Any serious crime involving potential bodily harm will be reported promptly to staff and students. In 1998, the federal government passed “The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act,” formerly “The Student Right to Know Act” of 1990.

For direct online access to the annual Clery Report, go to police.losrios.edu
All statistics are also available in the Los Rios Police office.
Reporting Crimes or Other Emergencies

Community members, students, faculty, staff, and guests are encouraged to immediately report all crimes, suspicious activity, emergencies, and any other public safety related incidents to the Los Ríos Police Department at (916) 558-2221 or ext. 2221 (press “0” when prompted) from a standard on-campus phone.

Crimes or Emergencies On-campus

Contact the Los Ríos Police Department at (916) 558-2221. From a standard on-campus phone, dial ext. 2221 (press “0” when prompted). You may also dial 911 for community-based emergency assistance. From a standard on-campus phone, dial 911. Use these numbers for reporting on-campus fire, police and medical emergencies. Communications Center personnel are trained to respond appropriately to emergencies of any nature.

There are many “blue light” emergency telephones located throughout the campuses which ring directly into the Communications Center of the Los Ríos Police Department. These auto-dialing phones may be used to summon emergency police, fire or medical assistance.

Crimes or Emergencies Off-campus

The Los Ríos Community College District does not have off-campus student housing or student organization facilities. The off-campus emergency telephone number is 911. Use this number from pay phones and all off campus locations for community-based fire, police and medical services. Refer to your local telephone directory for further information.

Non-emergencies On-campus

Contact the Los Ríos Police Department at (916) 558-2221 or from a standard on-campus phone, ext. 2221 (press “0” when prompted). You may also use the “blue” phones on campus for non-emergency services.

Confidential Reporting Procedures

All reports to the Los Ríos Police Department can be made confidentially and anonymously in accordance with the reporting person’s wishes.

Weapons Possession

State law prohibits the possession of weapons, all firearms, fireworks, explosives or any dangerous weapons on-campus. Refer to Penal Code section 16000. Violators are subject to criminal prosecution and/or district discipline.

The Los Ríos Community College District supports the federal guideline (37.007.1Ed Code) that prohibits handguns on campus. The possession of a firearm on district property is prohibited and strictly enforced. Persons in violation of this regulation will be subject to criminal and/or disciplinary action. This is formalized in District Regulation 2441.

If you observe a firearm or other weapon on campus, contact the campus police immediately at (916) 558-2221, or from a standard on-campus phone, ext. 2221. If you believe the weapon is about to be used, contact 911 immediately, or from a standard on-campus phone, 911.

Workplace Violence

The district is committed to creating and maintaining a working, learning and social environment for all employees, free from violence. The campus has zero tolerance for violence against any member of the workforce, other persons in the workplace, or property.
• Non-Discrimination Policy
• Access to Student Records
• Student Rights and Responsibilities
• Reporting Sexual Assault
• Drugs, Alcohol & Smoking Policies
• Illegal Downloads & File Sharing
• Children on Campus
• Statements of Professional Ethics
• Timeline for Student Grievance
Non-discrimination Policy

It is the policy of the District to implement policies to guarantee that no qualified student or prospective student or any person having an educational relationship with the District shall be unlawfully discriminated against, harassed, or excluded from any benefits, activities, or programs on the grounds of one or more of the following actual or perceived characteristics, or due to the association with a person or group with one or more of the following actual or perceived characteristics: ethnic group identification, race, color, sex, gender, gender identity, gender expression, pregnancy or childbirth-related condition, sexual orientation, sexual identity, religion or religious creed, age (over forty), national origin, ancestry, physical or mental disability, medical condition, political affiliation or belief, military and veteran status, marital status, or conversing in a language other than English. However, students shall be required to speak English when the use of English is necessary for educational or communication purposes. Sexual harassment is a form of unlawful discrimination based on sex and is prohibited in the District/College programs and activities under Title IX of the Education Amendments of 1972, 20 U.S.C., sections 1681 and following (Title IX). Further information may be found on the Los Rios website at: losrios.edu/legal/Policies/P-2000/P-2113.pdf (web address is case sensitive)

It is the Los Rios District’s policy to ensure that all ADA-compliant building entry doors function as intended. If any door is deemed inoperable, please contact the 504 Coordinator, Parrish Geary at (916) 484-8171.

Students and employees who believe they have suffered discrimination based on any of the above reasons may file a complaint with the appropriate Compliance Officer:

**College Equity Officer**  
Kate Jaques  
*Associate Vice President, Instruction*  
(916) 484-8765

**Disciplinary Officer**  
Chad Funk  
*Associate Vice President, Student Services*  
(916) 484-8465

**Student Grievance Officer**  
Sonia Ortiz-Mercado  
*Dean, Counseling & Transfer Services*  
(916) 484-8375

**504 Coordinator**  
Parrish Geary  
*Dean, Admissions & Transition Services*  
(916) 484-8172

Sexual Harassment Officer  
Kate Jaques  
*Associate Vice President, Instruction*  
(916) 484-8765

**Title IX Coordinator**  
Parrish Geary  
*Dean, Admissions & Transition Services*  
(916) 484-8172

**Americans with Disabilities Act (ADA) Coordinator**  
Parrish Geary  
*Dean, Admissions & Transition Services*  
(916) 484-8172

**AB620 Coordinator**  
Emilie Mitchell  
*Coordinator, Pride Center - LGBTQ*  
(916) 484-8146

Most complaints, grievances or disciplinary matters should be resolved at the campus level. This is the quickest and most successful way of resolving issues involving the college. You are encouraged to work through the campus complaint process first. Issues that are not resolved at the college or Los Rios District level may be presented via resources provided by the California Community Colleges Chancellor’s Office. Complainants are encouraged to use the official form provided by the Chancellor’s office; however, that form is not required and complaints will not be considered defective or rejected if you do not use the form.

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.

For more information, please refer to Los Rios regulation 2423 at: losrios.edu/legal/Regulations/R-2000/R-2000.htm (web link is case sensitive)

**Title IX**

This college supports and complies with Title IX of the Education Amendments of 1972, which prohibit sex discrimination in admission to, or employment in, all its educational programs and activities. Inquiries concerning Title IX may be directed to the college Title IX Coordinator, Dean of Student Services, Admissions & Transition Services, 4700 College Oak Drive, Sacramento, CA 95841, Telephone (916) 484-8172 or to the Director of the Office of Civil Rights, U.S. Department of Education, Washington D.C. Students Rights & Responsibilities.
Access to Student Records

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

The security of your information is very important to us. That is why we will not discuss your records over the phone. This includes resetting your password. If you do not remember your password reset questions, 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 must either log in to eServices or come in person with picture identification. You can also order your official transcripts online.

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

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 his or her record, the student should submit a statement to the College official responsible for the record, clearly identifying the part of the record he or she wants changed and why he or she believes it is inaccurate or misleading. That office will notify the student of their decision and advise of any appropriate appeal rights.

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 which permit disclosure without consent, including but not limited to:
   - Disclosure to school officials with “legitimate educational interests.” School officials are employees of the District and its colleges, agents with which the District or College has contracted with to provide services, the Board of Trustees; or students serving on a committee or assisting another school official in the performance of his or her tasks. A legitimate educational interest exists when the school official has a need to know the information in connection with his or her official duties.
   - “Directory information.” Directory information is a student's name, student identification number, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and most recent previous public or private school attended by the student. A student has the right to withhold the release of directory information. To do so, the student must complete a form, which is available from the Office of Admissions and Records. However, placing a “No Release” on a student's records means that no one including friends, parents, prospective employers, honor societies or any other group or individual will be able to obtain this information.

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

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

I. Preamble
(Adopted by the Los Rios Community College Board of Trustees in 1970. Revised in 1996 and Adm. Regulation Review completed 1/8/15)

The policy statement below, relating to students’ rights and responsibilities, is based upon three fundamental concepts:

A. College students are members of the academic community. While students enjoy the benefits of their status, they must comply at all times with Federal and State laws and statutes, and with Los Rios policies and regulations and individual college rules and regulations.

B. The president of a college in the District serves as the chief administrator of the college and is responsible for the overall supervision of the operation of the college in conformity with the directives and duties as defined by the District Chancellor and consistent with the policies of the Board of Trustees.

C. There is a clearly recognized need for continuing discussion, interpretation, careful study and review by students, college and District personnel and the Board of Trustees of the effects and execution of the policy on student rights and responsibilities.

II. Student Rights

In the context of these concepts, students’ rights consist of the following:

A. 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 campus regulation.

These publications shall do the following:

1. 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.

2. State on the editorial page that the opinions expressed are not necessarily those of the college or the student body.

B. Students shall have the right to take stands on issues, the right to examine and discuss questions of interest to them, and the right to support causes by orderly means which are in harmony with the regular functioning of the institution.

C. Students shall have the right to hear speakers on any subject and on-campus 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. These regulations shall be published in the college catalog, the student handbook, and by any other means designed to notify and inform affected persons.

D. Students shall have the right to form an organization around any particular interest; this right will include the freedom to organize and to join student organizations subject to published campus and district regulations.

E. Students shall have the right to be informed on all campus 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 campus matters are relevant to students, the determination will be made by a campus 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.

F. 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. (E.C. 76242 and 76243)

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

H. Students shall have the right to file a grievance as outlined in the procedures of the District Student Grievance Policy, in the event of an alleged breach of their rights. (See Policy# P2412, R2412)
III. Student Responsibilities

Admission to college assumes the expectation that the student will be a responsible member of the college community; will 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; and not interfere with legitimate college affairs. Students will assume the responsibility for their conduct. In the case of student conduct which 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 campus policy.

IV. Standards of Student Conduct

The California Education Code requires every community college governing board to adopt specific rules governing student behavior along with applicable penalties for violation of such rules and regulations. (Section 66300, Chapter 5 Rules of Student Conduct; E.C. 76030 Authority to suspend or expel.)

All students enrolling at American River College assume an obligation to abide by all College rules and regulations. These regulations are described in the Los Rios Community College District Board of Trustee Policies, Section 2400 Student Rights and Responsibilities/2440 Standards of Conduct and Due Process. Students who choose not to abide by these standards will be subject to college sanctions and disciplinary measures.

The president of the college or administrative designee may authorize the suspension of a student for good cause (E.C. 76033) which is defined for numerous offenses which includes:

1. Continued disruptive behavior, continued willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of the authority of, or persistent abuse of, college personnel.
2. Assault, battery, or any threat of force or violence upon a student or college personnel.
3. Willful misconduct which results in injury or death to a student or college personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the district.
4. The use, sale, or possession on campus of, or presence on campus under the influence of, any controlled substance, or any poison classified as such by Schedule D in Section 4160 of the Business and Professions Code.
5. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the governing board.
6. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.
7. Good cause is further defined, but is not limited to the following:
   a. 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.
   b. 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.
   c. Theft of or non-accidental damage to property of the college or a member of the college community or campus visitor while on campus or at college sponsored events.
   d. Unauthorized entry to or use of college facilities.
   e. Dishonesty, such as cheating, plagiarism or furnishing false information to the college, forgery, alteration or misuse of college documents, records or identifications.
   f. 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.
   g. Use, possession, distribution or being under the influence of alcoholic beverages, narcotics or dangerous drugs on college property or at college-sponsored events.
   h. Soliciting or assisting another to do any act which would subject a student to expulsion, suspension, probation, or other discipline pursuant to this policy.
   i. Violation of any order of a College President, notice of which has been given prior to such violation, and when 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.
   j. Attempting to do any of the causes for disciplinary action identified above.
Computer-Related Crimes
A student may be subject to disciplinary sanctions up to and including dismissal for commission of any computer-related crimes as specified in Section 502 of the Penal Code or as specified in District Policies and Administrative Regulations. Such crimes include, but are not limited to, the following:

a. Knowingly access and without permission alter, damage, delete, destroy or otherwise use any data, computer, computer system or computer network in order to either (a) devise or execute any scheme or artifice to defraud, deceive or extort, or (b) wrongfully control or obtain money, property or data.

b. Knowingly access and without permission take, copy or make use of any data from a computer, computer system or computer network, or take or copy any supporting documentation, whether existing or residing internal or external to a computer, computer system or computer network.

c. Knowingly and without permission use or cause to be used computer services.

d. Knowingly access and without permission add, alter, damage, delete or destroy any data, computer software or computer programs which reside or exist internal or external to a computer, computer system or computer network.

e. Knowingly and without permission disrupt or cause the disruption of computer services or deny or cause the denial of computer services to an authorized user of a computer, computer system or computer network.

f. Knowingly and without permission provide or assist in providing a means of accessing a computer, computer system or computer network in violation of this section.

g. Knowingly and without permission access or cause to be accessed any computer, computer system or computer network.

h. Knowingly introduce any computer contaminant into any computer, computer system or computer network.

No student shall be removed, suspended or expelled unless the conduct for which the student is disciplined is related to College activity or College attendance, or pursuant to Penal Code, section 502 or other laws specifically authorizing such.

V. Student Grievance Policy
The Student Grievance procedure shall be available to any student who believes an action or decision of the district or college staff has adversely affected his/her status, and/or rights as outlined under II. Student Rights (in this section of the Catalog). Grievances relating to grades are subject to Education Code 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 incompetency, shall be final.”

The complete text of the district's policy, regulation, and timeline on Student Grievance is available in the office of the Dean of Counseling and Transfer Services. Students who wish to exercise a grievance can receive policy and procedural steps from the Dean of Counseling and Transfer Services or online at: losrios.edu/legal/Regulations/R-2000/R-2412.pdf (web link is case sensitive)

The College Student Grievance Officer may assist the student in the procedural steps of a student grievance. (Revised by Los Ríos CCD Board of Trustees, July 8, 1992)

The California Community Colleges Chancellor's Office has provided this disclosure in compliance with the requirement of the Higher Education Act of 1965, as amended, as regulated in CFR 34, Sections 600.9 (b) (3) and 688.43(b). Effective July 1, 2011, eligible institutions must have and disclose a state administered complaint process. The California Community Colleges Chancellor's Office complaint process and form are available at californiacommunitycolleges.cccco.edu/ComplaintsForm.aspx
VI. Sexual Harassment

Sexual Harassment Policy

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

Definition of Sexual Harassment

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

1. Submission to the conduct is explicitly or implicitly made a term or a condition of an individual’s employment, academic status, or progress.
2. Submission to, or rejection of, the conduct by one individual is used as the basis of employment or an academic decision affecting another individual.
3. The conduct has a negative impact upon the individual’s work or academic performance, or creates an intimidating, hostile, or offensive work or educational environment.
4. Submission to, or rejection of, the conduct by the individual is used as the basis for any decision affecting the individual’s benefits and services, honors, programs, or activities at or through the educational institution.

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

1. Making unsolicited and unwelcome 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.
2. Continuing to express sexual interest after being informed that the interest is unwelcome. (Reciprocal attraction is not considered sexual harassment.)

3. Within the work environment, engaging in explicit or implicit coercive sexual behavior to control, influence, or affect 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 to control, influence, or affect the educational opportunities, grades and/or learning environment of the student.

4. 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.

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

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.

Sexual Assault

“Sexual assault” is broader than sexual violence and includes, but is not limited to, rape, forced sodomy, forced oral copulation, rape by a foreign object, sexual battery, domestic violence, dating violence, stalking, or threat of sexual assault. Sexual assault is a form of sexual harassment and should be reported under the District’s Discrimination and Harassment Procedures Policy and Administrative Regulation (P/R-2423). It should also be reported to the District Police Department or other appropriate law enforcement.
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 s/he is unconscious or coming in and out of consciousness. A person is incapacitated if s/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 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, and (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; i.e., at a party, introduced through a friend, or 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.

Complaint Procedure and Impact
Any individual who believes that he or she has been sexually harassed is encouraged to follow the complaint procedures as set forth in the District’s Affirmative Action Regulation R-2423. Throughout the procedures, the College President and the College/District Affirmative Action Officers will insure that confidentiality will be maintained and that due process will be followed with respect to both parties.

In the case of a student, it shall not affect grades, class selection, or other matters pertaining to his or her status as a student. In a situation where evidence is found that an allegation of sexual harassment is brought solely for the purpose of vexation, appropriate disciplinary action will be taken. Sexual harassment policy, procedures and forms are available from the campus Equity Officer, Associate Vice President, Instruction at 484-8540.
Reporting Sexual Assault

1.0 Procedure
1.1 It is the objective of the College, in accordance with EC67385, that students, faculty and staff who are victims of sexual assault committed at or upon the grounds of, or upon off-campus grounds or facilities maintained by the College, shall receive information and referral to treatment. This information shall be provided with sensitivity and in consideration of the victim's personal needs.

2.0 Notification
2.1 Any student, faculty or staff member who is a victim of sexual assault at a College facility as defined above may choose to notify the Campus Police Department. With the consent of the victim, the Campus Police Department will notify the Associate Vice President, Instruction and Campus Health Center.

3.0 Legal Reporting
3.1 Pursuant to legal requirements, Campus Police will notify the appropriate local law enforcement agency of the reported sexual assault.
3.2 In accord with the Campus Crime Awareness and Security Act of 1990, the College, on an annual basis, shall notify students and employees of statistics concerning specific types of crimes, including sexual assault. This notice shall be made through appropriate publications/mailings.
3.3 In the case of violent crimes considered to be a threat to other students and employees, the College shall make timely reports, respecting the confidentiality of the victim, to the College community in a manner that will aid in the prevention of similar occurrences.

4.0 Campus Services and Resources
4.1 Upon notification of a sexual assault, the Campus Police Department will make available to the victim a description of campus resources and services available to the victim as well as appropriate off-campus services. This listing of resources and services shall be updated each September 1 or more frequently as required.
4.2 The listing of resources and services shall be available through the Campus Police Department, the Counseling Center and the Health Center.
4.3 A victim of sexual assault shall be provided with information about the existence of at least the following options: criminal prosecutions, civil prosecutions, the disciplinary process through the college, the availability of mediation, academic assistance alternatives, and mental health counseling.

5.0 Case Management
5.1 A victim of sexual assault shall be kept informed by the College President/designee of the status of and disposition of any District/College disciplinary proceedings in connection with the sexual assault.
5.2 The Counseling Center and Health Center shall assist, upon request, the victim of sexual assault in dealing with academic difficulties that may arise because of the victimization and its impact.

6.0 Confidentiality and Requests for Information
6.1 The identity of a victim of sexual assault shall remain confidential unless otherwise prescribed by law. Requests for information regarding the sexual assault from the press, concerned students and parents will be handled by the College Public Information Office in accord with these regulations, the Family Educational Rights and Privacy Act, applicable California Education and Administrative Code sections, and Los Rios Community College District Policy.
6.2 Confidential reporting services are available to victims of sexual assault and/or domestic violence who do not wish to report the matter to campus authorities or police, but may want to receive support services. A confidential reporter is available in the Health Center in the Administration Building. Victims of any gender may also report confidentially 24 hours a day 7 days a week by contacting WEAVE (Women Escaping a Violent Environment) directly at (916) 568-3011 or email WEAVE@losrios.edu

7.0 Dissemination of Procedure
7.1 These procedures shall be published in all student, faculty and staff handbooks and shall be given to any student or employee who is the victim of sexual assault.
### Drugs, Alcohol & Smoking Policies

The abuse of illicit drugs and alcohol disrupts classes, compromises our physical and mental health, subjects us to criminal penalties, and impairs our ability to benefit from the learning experience. We therefore ask everyone to actively support the creation of 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. If you or someone you know is having problems with alcohol or drugs, contact the ARC Health Center for names of local agencies that can help.

#### Legal Sanctions

The LRCCD 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 includes, but is not limited to, 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: year in jail and/or fine
- Possession of marijuana (oz): 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 Standard

American River College and its centers are smoke, tobacco, and vape free as of January 1, 2016.

### Insurance

Students are not covered by the district or college for medical insurance. Students should arrange for some type of medical insurance if they are not covered by parents or individual insurance policies. Students needing information on health insurance are invited to visit the Health Center in the Administration Building for assistance.

International students (F-1 Visa) will be required to show evidence of approved health insurance coverage that adhere to the Los Rios District guidelines throughout the duration of their studies at American River College. International students needing information regarding insurance options are encouraged to visit the International Students Department located in The HUB for assistance.
The possession, consumption or transportation of alcoholic beverages on Los Rios Community College campuses or in district owned facilities is generally prohibited as a matter of institutional policy. It is important to note that the Los Rios Police Department will investigate and prosecute, to the fullest extent of the law, any violation of local, state, or federal laws pertaining to the use, possession, or sale of alcohol. Successful prosecution can lead to fines, incarceration in county jail, or incarceration in state prison, depending on the violation that was committed.

The use of alcoholic beverages must be in compliance with state law and is strictly limited to those persons 21 years of age or older. The possession, transportation, and/or consumption of alcohol by individuals less than 21 years of age is strictly prohibited and enforced. Alcoholic beverages may not be transported or consumed on district property. This is formalized in District Policy 2443.

Controlled Substances Policy

The Los Rios Community College District complies with the Drug Free Workplace Act of 1990 and the Higher Education Act Section 120a. The Los Rios Police Department strictly enforces state and federal laws, as well as the district’s zero-tolerance policy, for the unlawful manufacture, distribution, dispensing, possession or use of illegal drugs on district property or at any district-sponsored event off campus. Violators are subject to criminal prosecution and/or disciplinary action. This is formalized in District Policies 2441 and 2443.

Alcohol and Controlled Substances Assistance and Education

For information, confidential assistance and referral for substance abuse issues, contact the following:

On Campus
- Counseling Services (916) 484-8572
- Health Center (916) 484-8383

Community
- Alcoholics Anonymous (916) 454-1100
- Narcotics Anonymous (800) 600-4674
- Detox Center Pick Up (SPD) (916) 448-1236

Illegal Downloads & File Sharing

American River College students are prohibited from using the Los Rios Community College District information network to illegally download or share music, video and all other copyrighted intellectual property. American River College supports the Higher Education Opportunity Act and Digital Millennium Copyright Act, including efforts to eliminate the illegal distribution of copyrighted material. Under the law, college administrators may be obligated to provide copyright holders with information about users of the college information network who have violated the law.

Be aware that illegal forms of downloading and file sharing as well as the unauthorized distribution of copyrighted materials are violations of the law and may subject violators to academic sanctions from the college as well as criminal and civil penalties, including a lawsuit against you by the Recording Industry Association of America (RIAA).

In addition to being illegal, file sharing drains the college network’s bandwidth, which slows computer connections for students and employees who are using the network for legitimate academic purposes and ultimately costs the college money.

The college has developed policies and consequences to ensure that students respect music and other forms of intellectual property as well as conduct responsible use of the Internet. Review these policies online at: losrios.edu/legal/Policies/P-7000/P-7831.pdf (web link is case sensitive)

Children on Campus

- Children on campus must be under the direct supervision of a parent or adult.
- Unattended or disruptive children will be reported to the proper authorities.
- It is not appropriate for children to attend classes with their parents or to use labs or the library.

For more information please review Los Rios Community College District Board Policy 1312 on the Los Rios website at losrios.edu
Faculty Statement of Professional Ethics

1. “Professors, guided by a deep conviction of the worth and dignity of the advancement of knowledge, recognize the special responsibilities placed upon them. Their primary responsibility to their subject is to seek and to state the truth as they see it. To this end professors devote their energies to developing and improving their scholarly competence. They accept the obligation to exercise critical self-discipline and judgment in using, extending, and transmitting knowledge. They practice intellectual honesty. Although professors may follow subsidiary interests, these interests must never seriously hamper or compromise their freedom of inquiry.

2. As teachers, professors encourage the free pursuit of learning in their students. They hold before them the best scholarly and ethical standards of their discipline. Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors. Professors make every reasonable effort to foster honest academic conduct and to ensure that their evaluations of students reflect each student’s true merit. They respect the confidential nature of the relationship between professor and student. They avoid any exploitation, harassment, or discriminatory treatment of students. They acknowledge significant academic or scholarly assistance from them. They protect their academic freedom.

3. As colleagues, professors have obligations that derive from common membership in the community of scholars. Professors do not discriminate against or harass colleagues. They respect and defend the free inquiry of associates, even when it leads to findings and conclusions that differ from their own. Professors acknowledge academic debt and strive to be objective in their professional judgment of colleagues. Professors accept their share of faculty responsibilities for the governance of their institution.

4. As members of an academic institution, professors seek above all to be effective teachers and scholars. Although professors observe the stated regulations of the institution, provided the regulations do not contravene academic freedom, they maintain their right to criticize and seek revision. Professors give due regard to their paramount responsibilities within their institution in determining the amount and character of work done outside it. When considering the interruption or termination of their service, professors recognize the effect of their decision upon the program of the institution and give due notice of their intentions.

5. As members of their community, professors have the rights and obligations of other citizens. Professors measure the urgency of these obligations in the light of their responsibilities to their subject, to their students, to their profession, and to their institution. When they speak or act as private persons, they avoid creating the impression of speaking or acting for their college or university. As citizens engaged in a profession that depends upon freedom for its health and integrity, professors have a particular obligation to promote conditions of free inquiry and to further public understanding of academic freedom.”

Note: The preceding is the “Statement on Professional Ethics” authored and published by the American Association of University Professors (AAUP) in its Policy Documents and Reports (see #1 below) and on the “Reports and Publications” page of their official website (see #2 below). The original statement was adopted by AAUP in 1966. Revisions were made and approved by the Association’s Council in 1987 and 2009. The ARC Academic Senate has previously endorsed the AAUP “Statement on Professional Ethics” as the ARC Faculty Statement of Professional Ethics. In 2016, the ARC Academic Senate, on behalf of the ARC Faculty, has endorsed the most recent version of the AAUP “Statement on Professional Ethics” as its guiding principles for professional ethics.


2. AAUP Reports and Publication: aaup.org/report/statement-professional-ethics#b2
Classified Staff Statement of Professional Ethics

The quality of any institution is, to a large extent, based upon the quality of its employees. American River College has a tradition of excellence in education, which is partially a result of the employees and their service to students and the community. The classified staff embraces this philosophy through their professionalism, integrity, and excellence.

**Professionalism** is demonstrated through collaborating, communicating, and respecting one another through:

- Mutual respect
- Innovative thinking
- Networking
- Superior technical skills
- Open dialogue

**Integrity** of the classified staff is exemplified through ethical behavior, which is upheld through:

- Fiscal responsibility
- Embracing diversity
- Respectful behavior
- Trustworthiness
- Personal commitment

**Excellence** is exhibited through our support and reliance on each other. We strive to be an elite, premier, learning community through:

- Creative ideas
- Supportive actions
- Dedication
- Sound judgment
- Campus and community development

These are qualities that are fostered through the collaboration between classified staff, students, faculty and administrators. As the classified staff at American River College, we support the intellectual and vocational education of our student body. Through our students’ achievements, we strive to feed the heart of our surrounding communities. In our pursuit to meet these goals, our ultimate objective is to ensure student success.

Administrator Statement of Professional Ethics

American River College administrators recognize that ethical behavior is a prerequisite to successful leadership and management. Ethical behavior, defined as behavior that meets commonly accepted rules of conduct, encompasses the principles of honesty and equity.

At American River College, administrators strive to exercise judgments that are dispassionate, fair, consistent, and equitable. They seek openness and reliability, do their utmost to address issues and people without prejudice, and consistently work to maintain a focus on the best interests of the college’s students, employees, and communities served.

In fulfilling their responsibilities, American River College administrators adhere to the approved ARC Commitment to Social Justice and Equity as well as ARC Values included in this catalog and available online at [arc.losrios.edu](http://arc.losrios.edu).
## TIMELINES FOR STUDENT GRIEVANCE

<table>
<thead>
<tr>
<th>TIMELINE</th>
<th>WITH WHOM</th>
<th>PURPOSE/PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1: Informal grievance resolution (mandatory)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within ten (10) days of alleged act.</td>
<td>Student shall meet with staff member involved or with staff member’s immediate supervisor.</td>
<td>To attempt informal resolution. If no resolution reached within ten (10) days, student may proceed to formal grievance process.</td>
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<tr>
<td><strong>Level 2: Formal grievance process (grievability)</strong></td>
<td></td>
<td></td>
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<tr>
<td>Within five (5) days of completion of informal process and not later than twenty-five (25) days from date of alleged wrongful act.</td>
<td>Formal grievance form (completed) to be filed with Student Grievance Officer.</td>
<td>To determine if problem is grievable and if grievable, hearing will be scheduled.</td>
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<tr>
<td><strong>Level 3: Formal grievance process (hearing)</strong></td>
<td></td>
<td></td>
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<tr>
<td>Within ten (10) days of appointment, hearing will be scheduled.</td>
<td>All parties and Hearing Officer.</td>
<td>To determine the merit of the grievance and come to a decision within ten (10) days of the hearing.</td>
</tr>
<tr>
<td><strong>Level 4: Formal grievance process (appeal)</strong></td>
<td></td>
<td></td>
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<tr>
<td>Within five (5) days of Hearing Officer’s decision.</td>
<td>Vice President, Student Services</td>
<td>Written appeal, stating specific grounds for appeal. Review of record only. Decision within ten (10) days of receipt of appeal docs. Decision is final.</td>
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</tbody>
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• Graduation
• Course Numbering
• ARC Graduation Requirements
• ARC General Education Requirements
• General Education Areas and Alignment with Institutional Student Learning Outcomes
Graduation

American River College has one graduation ceremony each year, at the end of spring semester in May. August and December graduates, and May candidates, may participate in this commencement exercise. All students who are eligible for the Associate in Arts or Science degree must petition by the deadline dates noted in the official academic calendar. Notification of eligibility to participate in the graduation ceremony is done by mail through the Dean of Enrollment Services office no later than May 1.

Catalog Rights and Graduation Requirements

For purposes of graduation from any of the colleges of the Los Rios District, students who remain in attendance in one regular session (quarter, semester or summer session) in a calendar year at any California community college, or any combination of California community colleges, campuses of the California State University, the University of California, or any accredited institution of higher education, may elect to meet the requirements in effect at the Los Rios college from which the student intends to graduate, in one of three ways:

1. Requirements in effect at the time of admission to a Los Rios college, or
2. Requirements in effect at the time the student originally enrolled in an accredited college or university, or
3. Requirements in effect at the intended date of graduation from a Los Rios college.

Note:

• A college may authorize or request substitution for discontinued courses.
• Students changing 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 semester, quarter, or summer session in each calendar year. Absence for attendance at another accredited institution shall not be considered an interruption in attendance.

Course Numbering

Under the numbering system which went into effect in 2003, non-transfer and transfer courses are clearly distinguished by specific number ranges (100-299 for non-transfer courses; 300-499 for transfer courses).

1-99 Basic Skills and Developmental courses are numbered 1-99. They are not acceptable for associate degree or transfer credit.

100-299 College-level, non-transfer courses are numbered 100-299. They are primarily occupational or technical and meet associate degree requirements such as apprenticeships and fire technology. Some are acceptable for transfer by four-year institutions offering degrees in similar subject matter. Check with your counselor.

300-499 College-level, transfer courses are numbered 300-499. They meet requirements for associate degrees and are generally accepted for transfer to four-year institutions to meet major, general education, breadth, or elective credit requirements. Check with your counselor regarding transferability of course to the University of California, private colleges, and out-of-state universities.

1000-1999 Courses at the 1000 level are typically continuing education courses for working professionals who need to update their skills for employment or licensure purposes. The number range 1000-1999 also includes contract education courses offered by the Sacramento Regional Public Safety Training Center and other college units. The 1000 number may also be used for tutoring and other attendance-only courses. They are not acceptable for associate degree or transfer credit.
ARC Graduation Requirements 2019-2020

Students may graduate from American River College with the Associate in Arts (A.A.) or the Associate in Science (A.S.) Degree by fulfilling the following five (5) requirements:

1. Satisfactory completion of 60 units of collegiate work with a “C” (2.0) grade point average in a curriculum that the district accepts toward the degree. At least 12 of the 60 units must be earned at American River College.
2. Major: Complete an A.A. or A.S. Major Program of Study offered at American River College. Courses used to complete requirements for the major must be completed with a grade of “C” or better.
3. Completion of ARC’s general education requirements with a minimum GPA of 2.0 in courses used for general education (21 units minimum) or possession of a Baccalaureate Degree or higher from a regionally accredited college or university in the U.S.*
4. All students who wish to receive an A.A. or A.S. degree from American River College must demonstrate competency in writing, reading, and mathematics as listed below.
5. Students are held to the graduation requirements established at the time they begin college as long as they maintain their catalog rights. Refer to ARC catalog for definition of catalog rights.

A. WRITTEN EXPRESSION COMPETENCY is satisfied by the following:

1. Completion of, with a “C” or better, one of the following courses: BUS 310; ENGWR 300, 480; ESLW 340.
2. Completion of an equivalent college writing course at a regionally accredited college in the U.S. with a grade of “C” or better.*
3. Possession of a BA/BS or higher from a regionally accredited college in the U.S.*

B. READING COMPETENCY may be met using one of the following:

1. Satisfactory completion of one of the following General Education Patterns: The Intersegmental General Education Transfer Curriculum; The California State University General Education Breadth Requirements OR Any local general education pattern offered in the Los Rios Community College District.
2. Proof of having met reading competency at a regionally accredited college in the U.S.
3. Possession an AA/AS or higher from a regionally accredited community college in the U.S.

C. MATHEMATICS COMPETENCY is satisfied by one of the following:

1. Completion of one of the following with a “C” or better: MATH 110, 120, 125, 129, 133, 300, 310, 311, 320, 325, 336, 340, 342, 355, 356, 370, 372, 373, 400, 401, 402, 410, 420; PHIL 324; PSYC 330; STAT 300, 305, 480.
2. Completion of an equivalent course with a “C” or better at a regionally accredited college in the U.S.* or completion of a course, with a “C” or better, which meets Mathematics Competency at the California Community College where it was completed.
3. Obtain a satisfactory score on a Los Rios Math Competency Test.
4. Possession of a BA/BS or higher from a regionally accredited college in the U.S.*

* See District Policy and Regulations P7241/R7241
## ARC General Education Requirements 2019-2020

### I. HUMANITIES: One course from the following (3 units minimum):

- ART 300, 312, 320, 324, 339, 430, 440; ARTH 300, 302, 308, 310, 318, 322#, 333, 334, 335; ARTNM 305, 322, 331; ARTPH 300, 305, 340, 345; DEAF 310, 312, 314, 316, 318, 380#; ECE 361, 363; ENGLT 300, 304, 308#, 310, 311, 320, 321, 327#, 335#, 338#, 340, 341, 345, 360, 365, 370, 378, 380, 382, 392, 403, 494; FASHN 330; FREN 401, 402, 411, 412; GER# 401, 402, 411, 412; HIST 300, 302*, 305*, 307#, 308#, 364*, 365*, 399*, 480*, 481*, HUM 300, 301, 302#, 310, 320#, 324#, 326#, 330#, 355#, 360, 365, IDES 310, 312; ITAL 401, 402, 411, 412; JAPAN 401, 402; MUFHL 300, 308, 310, 311, 315#, 321, 330#, 400; PHIL 300, 310, 315, 330, 331, 350, 360; RUSS 401, 402, 411, 413; SPAN 401, 402, 411, 412, 427; TA 300, 302, 303, 304, 307#, 320

### II. LANGUAGE & RATIONALITY: Two courses from the following (3 units must be completed from each area):

- **a) English Composition:** One course from the following (3 units minimum)
  - BUS 310; ENGWR 300, 480; ESLW 340
- **b) Communication & Analytical Thinking:** One additional course from the following (3 units minimum)
  - ANTH 341#; AT 105; BUS 105; CISB 305, 315, 320; CISC 300*; CISP 300, 315, 350, 360, 400, 440, 480; DEAF 370; ENGCW 400, 430; ENGED 305; ENGR 310, 312; ENGW 301, 302, 303, 481, 482; ESL 350; GEOG 330, 370; TOUR 300; MGMT 360; MATH 120, 125, 129, 133, 300, 310, 311, 320, 325, 336, 340, 342, 355, 367, 370, 372, 373, 400; PHIL 320, 324; PSYC 330; SPEECH 301, 311, 361; STAT 300, 305, 480; WELD 140

### III. LIVING SKILLS: Two courses from the following — One course must be completed in each area (3 units minimum):

- **a) Physical Education activity course** with any of the following prefixes:
  - ADAPT, DANCE, FITNS, PACT, TMACT, SPORT
- **b) Life Development Skills:** (Minimum of 2 units from the following)
  - AT 107; BIOT 308; BUS 312, 320*, CISC 300*, ECE 330, 350; ECON 320*, ENGED 320, 322, 324; ET 250; GERON 300, 330, 334, HCD 160, 310, 318, 330, 331, 336, 382; HEED 300; HIST 399*; HSER 340; KINES 300; LIBR 310, 318, 330; NUTRI 300*, 303*, 305; PSYC 340, 342, 354, 356#, 358, 359, 370*, 378, 379, 390, 400, 481; SOC 335; SPEECH 321; WELD 150; all ARC Work Experience courses (in any discipline area) numbered 198, 298 & 498

### IV. NATURAL SCIENCES: One course from the following (3 units minimum):

- ANTH 300, 303, 480; ASTR 300, 310, 320, 330, 481; BIOL 102, 103, 115, 116, 300, 301, 303, 305, 310, 312, 352, 370, 375, 400, 430, 431, 482; CHEM 305, 309, 310, 400; ENERGY 303; FT 304; GEOG 300, 305, 306, 307, 308, 331; GEOL 300, 305, 310, 320, 325, 330, 345; HEED 308; HORT 300; NTRT 300, 302, 303, 304, 305, 306, 310, 320, 330, 332, 346; NUTRI 300*, 303*, PHYS 310, 311, 312, 350, 410; PS 300; PSYC 310

### V. SOCIAL & BEHAVIORAL SCIENCES: Two courses – 3 units must be completed in each area:

- **a) American Institutions:** One course from the following (3 units minimum):
  - HIST 310, 318, 320#, 321#, 323#, 325#, 330#, 338#, 484, 486; POLS 301, 304, 481
- **b) Social/Behavioral Sciences:** One additional course from the following (3 units minimum):

### VI. ETHNIC/MULTICULTURAL STUDIES: (3 units minimum):

- ADMJ 302#, ANTH 310#, 330#, 333#, 334#, 336#; 341#, 481#; ARTH 322#; BIOL 322; BUS 330#; DANCE 300#; DEAF 351#, 355#, 380#; ECE 430#; ENGLT 308#, 327#, 338#, 365#, GEOG 310#, 320#, 322#; HUM 300#, 310, 320#, 322#; JOUR 320#; MUFHL 315#, 330#; NUTRI 310#, 481#; PSYC 356#, 361#, 365#; SJS 300, 310; SOC 320#, 325#, 342#; SPEECH 325; TA 306#; TAFILM 307#

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

# These multicultural courses can also satisfy general education category requirements.
General Education

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: Humanities, Languages and Rationality, Living Skills, Natural Sciences, Social and Behavioral Sciences and Ethnic/Multicultural Studies. 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

Humanities
(3 units minimum)
Courses in the humanities are those which study the cultural activities and artistic expressions of human beings. To satisfy the general education requirement in the humanities, a course should help the student develop an awareness of the ways in which people throughout the ages and in different cultures have responded to themselves and the world around them in artistic and cultural creation and help the student develop an aesthetic understanding and an ability to make value judgments. This category includes introductory or integrative courses in the arts, foreign languages, literature, philosophy, religion, and related disciplines.

Institutional Student Learning Outcomes aligned with Humanities
• Demonstrate skills and behaviors which contribute to open and respectful communication of diverse ideas and beliefs.
• For students earning degrees, demonstrate an understanding of the basic content and methodology for the major areas of knowledge, including the arts and humanities, quantitative reasoning, the natural sciences, and the social sciences.

Languages and Rationality
(6 units: 3 units each from (a) and (b))
Courses in language and rationality are those which use and examine principles and guidelines of clear and logical thinking and communication. Courses in this category should build upon rather than remediate verbal and quantitative skills.

a) English Composition: Courses fulfilling the written composition requirement should include both expository and argumentative writing.

b) Communication and Analytical Thinking: Courses fulfilling the communication and analytical thinking requirement include oral and written communication, mathematics, logic, statistics, computer language and programming, and related disciplines.

Institutional Student Learning Outcomes aligned with Languages and Rationality

English Composition component of the Language and Rationality general education requirement:
• Utilize a variety of methods to communicate effectively.
• Locate and critically evaluate information from a variety of sources, including those accessed through technology, to create informed responses to issues, problems, and challenges.

Communication and Analytical Thinking component of the Language and Rationality general education requirement:
• Utilize a variety of methods to communicate effectively.
• Locate and critically evaluate information from a variety of sources, including those accessed through technology, to create informed responses to issues, problems, and challenges.
• For students earning degrees, demonstrate an understanding of the basic content and methodology for the major areas of knowledge, including the arts and humanities, quantitative reasoning, the natural sciences, and the 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 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 a number of different disciplines that help students to 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 includes such courses as health education, human sexuality, marriage and family, nutrition, and personal adjustment.

Institutional Student Learning Outcomes aligned with Living Skills
- Demonstrate and employ marketable skills and personal qualities for professional growth and career advancement.
- Demonstrate skills and behaviors which contribute to open and respectful communication of diverse ideas and beliefs.
- Utilize a variety of methods to communicate effectively.
- Employ strategies to work cooperatively and effectively with others.
- Locate and critically evaluate information from a variety of sources, including those accessed through technology, to create informed responses to issues, problems, and challenges.

Natural Sciences
(3 units minimum)
Courses in the natural sciences are those which examine the physical universe, its life forms and its natural phenomena. To satisfy the general education requirement in natural sciences, a course should help the student develop an appreciation and understanding of the scientific method, and encourage an understanding of the relationships between science and other human activities. This category includes introductory or integrative courses in astronomy, biology, chemistry, general physical science, geology, physical geography, physical anthropology, physics and other scientific disciplines.

Institutional Student Learning Outcomes aligned with Natural Sciences
- Locate and critically evaluate information from a variety of sources, including those accessed through technology, to create informed responses to issues, problems, and challenges.
- For students earning degrees, demonstrate an understanding of the basic content and methodology for the major areas of knowledge, including the arts and humanities, quantitative reasoning, the natural sciences, and the social sciences.

Social and Behavioral Sciences
(3 units minimum)
Courses in the social and behavioral sciences are those which focus on people as members of society. To satisfy the general education requirement in social and behavioral sciences, a course should help the student develop an awareness of the method of inquiry used by the social and behavioral sciences. It should stimulate critical thinking about the ways people act and have acted in response to their societies and should promote appreciation of how societies and social subgroups operate. This category includes introductory or integrative survey courses in anthropology, economics, history, political science, psychology, sociology and related disciplines, exclusive of those which fulfill the American Institutions requirement.

Institutional Student Learning Outcomes aligned with Social and Behavioral Sciences
- Demonstrate skills and behaviors which contribute to open and respectful communication of diverse ideas and beliefs.
- Utilize a variety of methods to communicate effectively.
- Employ strategies to work cooperatively and effectively with others.
- Locate and critically evaluate information from a variety of sources, including those accessed through technology, to create informed responses to issues, problems, and challenges.
- For students earning degrees, demonstrate an understanding of the basic content and methodology for the major areas of knowledge, including the arts and humanities, quantitative reasoning, the natural sciences, and the social sciences.
American Institutions Requirement
(3 units minimum)

Courses in American Institutions are those which focus on the historical development of American institutions and ideals, the operation of representative democratic government under the Constitution of the United States, and the principles of state and local government established under the Constitution of this State. To satisfy the general education requirement in American Institutions, a course should help the student develop an appreciation and understanding of the basic institutions, ideals, knowledge, and skills necessary for intelligent and loyal citizenship. It should stimulate critical thinking, problem solving, and literacy skills in regard to American historical, political, governmental, economic, social, and intellectual issues as they relate to both domestic and foreign affairs. This category includes introductory or integrative survey courses in history and political science which qualify under the guidelines of either “a” or “b” below.

a) Any course which addresses the historical development of American Institutions and ideals, inclusive of the following:

1) Significant events occurring in the entire area now included in the United States of America, including the relationships of regions within that area and with external regions and powers as appropriate to the understanding of those events within the United States during the period under study.

2) The role of major ethnic and social groups in such events and the contexts in which the events have occurred.

3) The events presented within a framework which illustrates the continuity of the American experience and its derivation from other cultures including consideration of three or more of the following: politics, economics, social movements, and geography.

b) Any course which addresses the U.S. Constitution, representative democratic government operation, and the process of California State and local government, inclusive of the following:

1) The political philosophies of the framers of the Constitution and the nature and operation of United States political institutions and processes under that Constitution as amended and interpreted.

2) The rights and obligations of citizens in the political system established under the Constitution.

3) The Constitution of the State of California within the framework of evolution of Federal-State relations and the nature and processes of State and local government under that Constitution.

4) Contemporary relationships of State and local government with the Federal government, the resolution of conflicts and the establishment of cooperative processes under the constitutions of both the State and nation, and the political processes involved.

Institutional Student Learning Outcomes aligned with American Institutions

• Utilize a variety of methods to communicate effectively.

• Employ strategies to work cooperatively and effectively with others.

• Locate and critically evaluate information from a variety of sources, including those accessed through technology, to create informed responses to issues, problems, and challenges.

• Recognize the responsibility to behave as an ethical citizen, contributing personal knowledge, resources, and skills for the benefit of the local and larger communities.

• For students earning degrees, demonstrate an understanding of the basic content and methodology for the major areas of knowledge, including the arts and humanities, quantitative reasoning, the natural sciences, and the social sciences.
Ethnic / Multicultural Studies

Ethnic studies will be offered in at least one of the required general education areas.

Students may fulfill the District’s Ethnic/Multicultural Studies course requirement through completion of one 3 unit course. Significant and substantial elements of the course must examine multicultural matters as specified by the criteria below.

- The course examines significant aspects of culture, contributions, and social experiences of under-represented ethnic/racial minority groups in the United States such as: African American, Asian American, Chicano, Latino, Hispanic Americans, and Native Americans; Non-western, Non-Eurocentric cultures.
- The course examines multiple groups, one of which may include European Americans and is comparative in nature.
- The course should include analysis of ethnicity, ethnocentrism, and/or racism, and how they shape and explain ethnic experience.

Institutional Student Learning Outcomes aligned with Ethnic/Multicultural Studies

- Demonstrate skills and behaviors which contribute to open and respectful communication of diverse ideas and beliefs.
- For students earning degrees, demonstrate an understanding of the basic content and methodology for the major areas of knowledge, including the arts and humanities, quantitative reasoning, the natural sciences, and the social sciences.
• Transfer to Four-year Institutions
• ARC Associate Degrees for Transfer
• Transfer to the California State University (CSU)
• CSU GE Pattern
• Transfer to the University of California (UC)
• Intersegmental General Education Transfer Curriculum (IGETC)
• Transfer Center
• AP (Advanced Placement) Test Scores
• IB (International Baccalaureate) Test Scores
• CLEP (College Level Examination Program) Test Scores
Transfer to Four-year Institutions

Transfer Program
American River College courses numbered 300 to 499 are accepted by each of the 23 campuses of the California State University (CSU). Transferable courses can satisfy lower division major preparation, general education, and/or elective requirements. Students should meet with an ARC counselor regarding the transferability of courses to the University of California (UC) independent and out-of-state public colleges and universities, UC transfer status is also located in the course description information for each course in this Catalog.

Transfer information has been compiled to assist American River College students who intend to transfer to another college or university. Students are encouraged to work with their ARC counselor to ensure they are taking courses that meet lower division general education and major requirements. CSU and UC campuses accept a maximum of 70 semester units from community colleges toward the Bachelor’s degree.

There are also many out-of-state and independent colleges and universities to which ARC students transfer. Each institution of higher learning has its own requirements for admission and for junior standing. Some out-of-state and independent colleges/universities accept the CSU General Education CSU-GE or IGETC patterns in lieu of their own general education requirements; students should consult the Catalog of the college/university to which they plan to transfer to determine acceptance of CSU-GE and/or IGETC patterns.

Five Transfer Options
Students must decide which college they will attend and learn the requirements of that institution in order to transfer to a CSU, UC, independent or out-of-state university. It is highly recommended that students use the services offered by our Transfer Center, and meet with their ARC counselor regularly to ensure they are taking the appropriate coursework for transfer. It is also important to choose the transfer major early to ensure completion of the appropriate transfer courses. In general, however, students will choose one of the following options:

1. Those who are certain that they want to transfer to any campus of the California State University (CSU), should, if appropriate, complete the requirements for an Associates Degree for Transfer (ADT), or complete the lower division major requirements as outlined on ASSIST (assist.org), choose either the CSU-GE or IGETC pattern to fulfill lower division General Education requirements, and make sure to complete between 60 and 70 transferable semester units.

2. Those who are certain that they want to transfer to any campus of the University of California (UC), should complete the lower division major requirements as outlined on ASSIST (assist.org), choose either the IGETC pattern or the UC campus-specific GE/Breadth pattern to fulfill lower division General Education requirements, and make sure to complete between 60 and 70 transferable semester units.

3. Those who are uncertain of transfer to a CSU or UC campus, should work closely with a counselor to ensure completion of the admission requirements for the CSU and UC campuses to which they are most interested in transferring, and follow IGETC to complete lower division general education requirements. To help things go smoothly, choose the transfer college and major as early as possible.

4. Those who want to transfer to a specific campus (UC, CSU or elsewhere), may ask that campus for a copy of its specific admission and General Education/Breadth requirements. However, for most CSU and UC campuses, CSU-GE or IGETC is the most efficient way to complete lower division general education requirements.

5. Those who want to transfer to an impacted campus or into an impacted major at a CSU or UC, will need to meet specific entrance requirements for that program or campus. Complete an Associate Degree for Transfer (ADT) for admission to a CSU campus. Meet with a ARC counselor to ensure how best to fulfill transfer goals.

Completion / Transfer (Student Right to Know)
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 online at: http://srtk.cccco.edu/index.asp

Articulation
American River College has articulation agreements with most campuses of the California State University (CSU) and University of California (UC). In addition, the college also has articulation agreements with a number of private universities in and outside of California.

These agreements assure ARC students appropriate lower-division preparation for transfer. Articulation agreements with CSU and UC campuses can be viewed online at assist.org. Articulation agreements with private and out-of-state colleges and universities can be viewed on the campus website arc.losrios.edu. See a counselor for assistance.
ARC Associate Degrees for Transfer

American River College offers Associate in Arts for Transfer (AA-T) and Associate in Science for Transfer (AS-T) degrees (also referred to as “ADTs”). Students earning an ADT must complete all of the required courses for a major (earning a “C” or better in each of these courses), complete (with certain exceptions - see notes below) either the CSU General Education Certification pattern or the Intersegmental General Education Transfer Curriculum (CSU option), and complete a minimum of 60 CSU transferable units with a cumulative GPA of at least 2.0. All students who plan to earn an ADT from ARC should file a graduation petition early in their last semester of enrollment at ARC, and be aware that CSU transfer application deadlines also apply to these degrees.

Administration of Justice
A.S. for Transfer - Administration of Justice

Anthropology
A.A. for Transfer - Anthropology

Art
A.A. for Transfer - Art History
A.A. for Transfer - Studio Art

Biology
A.S. for Transfer - Biology *

Business
A.S. for Transfer - Business Administration

Early Childhood Education
A.A. for Transfer - Early Childhood Education

Economics
A.A. for Transfer - Economics

English
A.A. for Transfer - English
A.A. for Transfer - Elementary Teacher Education

Foreign Languages
A.A. for Transfer - Spanish

Geography/GIS
A.A. for Transfer - Geography

Geology
A.S. for Transfer - Geology **

History
A.A. for Transfer - History

International Studies
A.A. for Transfer - Global Studies #

Journalism
A.A. for Transfer - Journalism and Mass Communication

Kinesiology and Athletics
A.A. for Transfer - Kinesiology

Mathematics & Statistics
A.S. for Transfer - Mathematics

Music
A.A. for Transfer - Music **

Nutrition & Foods
A.S. for Transfer - Nutrition and Dietetics

Philosophy
A.A. for Transfer - Philosophy

Physical Science & Physics
A.S. for Transfer - Physics **

Political Science
A.A. for Transfer - Political Science

Psychology
A.A. for Transfer - Psychology

Social Justice Studies
A.A. for Transfer - Social Justice Studies: Race and Ethnicity #
A.A. for Transfer - Social Justice Studies: Women, Gender, and LGBTQ Studies #

Sociology
A.A. for Transfer - Sociology

Speech Communication
A.A. for Transfer - Communication Studies

Teacher Education
A.A. for Transfer - Elementary Teacher Education ***

Theatre Arts
A.A. for Transfer - Theatre Arts

Transfer Degrees
The Student Transfer Achievement Reform (STAR) Act established Associate Degrees for Transfer (ADT) for California community college students. These degrees are designed to provide a clear pathway to CSU degrees. California community college students who earn an ADT degree are guaranteed admission with junior standing to select CSU campuses and are given priority admission consideration over other transfer students. Students who have completed an ADT in a major deemed similar to a CSU major are able to complete the remaining requirements at that CSU within 60 units after transfer. For more information, please see your counselor.

Course Identification Numbering System (C-ID)
American River College participates in C-ID. Each C-ID and number is associated with a descriptor, and identifies a lower-division course commonly offered at California Community Colleges. Most CSU campuses accept C-ID approved community college courses for articulation and transfer purposes.

A listing of American River College courses approved for C-ID can be found at: c-id.net (choose “Courses,” then “Search,” and American River College from the “School” drop-down)
Transfer to the California State University

Students intending to transfer to a California State University (CSU) should plan a program to meet the graduation requirements of the specific institution which they plan to attend. Transfer admission eligibility is based on transferable college units and/or high school record and test scores. Consult the catalog issued by the individual campus for a complete description of the curricula and regulations. Catalogs are available in the Transfer Center.

Students who were eligible for admission to a CSU upon graduation from high school, but who have attended American River College, may transfer with less than 60 transferable units, but must have earned a grade point average of C (2.0) or better in the total program attempted and be in good standing at American River College in order to be accepted for transfer. However, consult with an ARC counselor to ensure that the CSU campus you choose is accepting transfer students with less than 60 units.

Students who were ineligible for admission to a California State University on the basis of high school grade point average, test scores, or subject requirements, will be eligible only if they (1) have completed 60 transferable college units with a grade point average of 2.0 or better; (2) are in good standing at ARC; and (3) have satisfied the following CSU admission requirements. Some CSU campuses have additional admission requirements. Check with your counselor to ensure you are meeting the entrance requirements for your chosen CSU campus.

Please refer to www2.calstate.edu/apply for more information.

CSU Admission Requirements

1. High School graduate prior to 1987.
   a. Area A 1, 2, 3 (With grade of C or better).
   b. Area B 4 (With grade of C or better).
2. High School graduate 1988 and later.
   a. Area A 1, 2, 3 (With grade of C or better).
   b. Area B 4 (With grade of C or better).
   c. Thirty (30) semester units of General Education with C or better. This includes areas A and B.

*See the CSU General Education Requirements in the Transfer section of this catalog for listings of courses that meet Areas A 1, 2, 3 and B 4.

All students wishing to transfer to a CSU campus have the option of using the California State University General Education pattern, the Intersegmental General Education Transfer Curriculum (IGETC), or CSU campus-specific requirements to meet CSU general education requirements. Completion of the CSU General Education pattern or IGETC allows the student to transfer to a CSU campus without the need to take additional lower division general education courses after transfer. Students are encouraged to complete as many lower division major requirements as possible for their chosen CSU campus while attending ARC. These requirements can be found online at assist.org.

CSU General Education and IGETC Certification

Students transferring to a CSU campus usually find it to their advantage to complete the required General Education requirements prior to transfer. This can be accomplished by completing either the California State University GE or IGETC certification pattern. These patterns are listed on page(s) 73 and 74 of this catalog. Students must make an appointment with their ARC counselor to have these patterns certified prior to transfer.

CSU GE Pattern

Check with your ARC counselor before choosing whether to complete the CSU General Education (GE) Pattern or the Intersegmental General Education Transfer Curriculum (IGETC), which are located on the following pages.

General Education Requirements 2018-2019

To be eligible for graduation with a Bachelor’s Degree from a California State University, students must complete a minimum of 48 semester units of general education. At least 9 units must be upper division courses completed at the CSU campus. American River College will certify completion of 39 lower division general education units for students who follow the pattern outlined which follows. It is important that, in addition to general education coursework, students complete all coursework required for their chosen major, and a total of at least 60 units of CSU transferable courses.

Note: Students must meet with a counselor in order to have their CSU General Education certified prior to transfer. Advanced Placement (AP), College Level Examination Program (CLEP), and International Baccalaureate (IB) examinations are appropriate for inclusion on the CSU GE certification pattern. Charts denoting how these tests meet CSU GE requirements can be viewed on the following page.
# 2018-2019 California State University (CSU) General Education Pattern

The following American River College courses fulfill CSU lower division general education requirements. 

**Note:** The 2019-2020 CSU General Education pattern was not available at the time the catalog was printed. Please see a Counselor for the updated list of approved courses.

## A. English Language Communication and Critical Thinking:

<table>
<thead>
<tr>
<th>A1 (one course)</th>
<th>SPEECH 301, 331, 361</th>
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<tbody>
<tr>
<td>A2 (one course)</td>
<td>ENGW 300, 480, ESLW 340</td>
</tr>
<tr>
<td>A3 (one course)</td>
<td>ENGRD 310, ENGW 301, 302, 303, 481, 482, ESL 350, PHIL 320, SPEECH 302, 311</td>
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</table>

## B. Scientific Inquiry and Quantitative Reasoning:

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<tbody>
<tr>
<td>B2 (one course)</td>
<td>ANTH 300, 303, 480, BIOL 300, 301, +303, +305, +310, 332, 342, 352, +370, 375, +400, +410, +415, +420, +430, +440, +442, +482, HEED 308, NATR 302, +305, +306, +310, +320, PSYC 310</td>
</tr>
<tr>
<td>B3 (one course)</td>
<td>ANTH 301, ASTR 400, +481, BIOL +303, +305, +310, 332, +370, +400, +410, +415, +420, +430, +440, +442, +482, CHEM +305, +309, +400, +401, +423, GEOG 301, 309, GEOL 301, 306, 311, 331, NATR +305, +310, +320, PHYS 312, +350, +360, +410, PS 301, PSYC 311</td>
</tr>
<tr>
<td>B4 (one course)</td>
<td>CISP 440, MATH 300, 310, 325, 336, 340, 342, 355, 356, 370, 372, 373, 400, 401, 402, 410, 420, PSYC 330, STAT 300, 305, 480</td>
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## C. Arts and Humanities:

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<tbody>
<tr>
<td>C1 or C2 (one course)</td>
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</tbody>
</table>

## D. Social Sciences:


## E. Lifelong Learning & Self Development:


One unit maximum from most courses with the following prefixes: ADAPT, DANCE, FITNS, PACT, TMACT, SPORT: Check with ARC counselor or assist.org to see if a specific physical education activity course is appropriate for CSU GE area E.

## F. U.S. History, Constitution and American Ideals:

| F (two courses) | POLS 301 or 481 and one of the following: HIST 310, 311, 318, 320, 321, 323, 325, 327, 330, 483, 484 These courses can also be used in area D above. |

Courses used in the major may or may not be allowed for use also in General Education; see your Counselor for more information.

* Courses appearing in more than one category may be used to satisfy only one category.
+ Courses may be counted in 2 areas.

Note: Additions to the CSU-GE Breadth released after catalog was printed have been added per June 2019 Addendum.
Transfer to the University of California

Please refer to [http://admission.universityofcalifornia.edu/transfer/index.html](http://admission.universityofcalifornia.edu/transfer/index.html) for more information.

This section gives general information concerning requirements for transfer into the nine University of California campuses that offer undergraduate programs. Specific information regarding preparation for major and/or breadth requirements to the individual campuses is available in the ARC Counseling Center.

Students wishing to transfer to any University of California campus have the option of using the IGETC (listed in Section C) or a UC campus’ individual breadth requirements to meet lower division breadth requirements. However, not all majors at UC campuses recommend the IGETC. Students should check with their ARC counselor in order to choose the correct option. Transfer students are encouraged to complete as many lower division major requirements as possible at ARC. UC campuses often select students based on their major preparation. It is advised that students meet with their ARC counselor regularly to make sure they are meeting UC entrance requirements. Students can also find lower division major requirements for UC campuses online at [assist.org](http://assist.org).

**UC Minimum Admission / Eligibility Requirements**

There are three ways to meet the University’s minimum admission requirements for transfer students. The path you use depends on the degree to which you satisfied UC’s minimum eligibility requirements for freshmen when you graduated from high school.

At high school graduation, if you:

1. Met the Subject, Scholarship and Examination Requirements then to be eligible to transfer to UC you must:
   - Maintain a C average (2.00 GPA) in your transferable coursework.(2.8 for non-residents)

2. Met the Scholarship Requirement, but did not satisfy the Subject Requirement then to be eligible to transfer to UC you must:
   - Take transferable college courses in the missing subjects, earning a C or better in each course, and
   - Maintain a C average (2.00 GPA) in your transferable coursework.(2.8 for non-residents)

3. Were not eligible for admission to UC because you did not meet the Scholarship Requirement then to be eligible to transfer to UC you must:
   - Complete 60 semester (90 quarter units) of transferable credit with a 2.40 GPA, taking no more than 14 semester (21 quarter units) Pass/No Pass.

   **A.** Complete the following course pattern requirements, earning a grade of ‘C’ or better in each course:
   a. Two UC transferable college courses (3 semester or 4-5 quarter units each) in English composition (Courses from IGETC Areas 1A and 1B fulfill this requirement);
   b. One UC transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning (Courses from IGETC Area 2 fulfill this requirement);
   c. Four UC transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas (Courses from IGETC Areas 3, 4 & 5 and other transferable courses fulfill this requirement):
      - arts and humanities
      - social and behavioral sciences
      - physical and biological sciences

**High School Proficiency Examination**

Transfer applicants who have passed a high school proficiency examination must also meet regular university entrance requirements.

**Transfer Opportunity Program (TOP)**

The Transfer Opportunity Program (TOP) exists at American River College to assist ARC transfer students in the transition to the University of California at Davis. A transfer advisor from UC Davis is available on a regular basis during the academic year in the ARC Counseling Center to assist students in fulfilling admission requirements, lower division major requirements, breadth requirements, and screening requirements in selective majors.

If you are interested in meeting with the UC Davis transfer advisor, make an appointment in the Transfer Center.
2018-2019 University of California and California State University Intersegmental General Education Transfer Curriculum (IGETC)

Completion of all the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) meet lower division general education requirements at either a California State University (CSU) or University of California (UC) without the need after transfer to take additional lower division general education courses. All courses must be completed with grades of “C” or better. For information regarding admission requirements to attend a CSU or UC, please visit the Transfer Center website or meet with an ARC counselor. Students should also visit the assist.org website in order to view the courses that will complete lower division major preparation requirements.

Notes: The 2019-2020 IGETC pattern was not available at the time the catalog was printed. Please see a Counselor for the updated list of approved courses.

Notes: Student must see a counselor to have this pattern certified before transferring. Students who have selected a specific campus for transfer should consult with an ARC counselor before following the IGETC pattern.

Advanced Placement (AP) and International Baccalaureate (IB) examinations are appropriate for inclusion on the IGETC pattern. Charts denoting how these tests meet IGETC requirements can be viewed on pages 75–79 of this Catalog.

2018-2019 IGETC Pattern - The following ARC courses fulfill the IGETC requirements

Area 1: English Communication (6-9 units, one course from each area)

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>1A (one course)</td>
<td>ENGWR 300, 480</td>
</tr>
<tr>
<td>1B (one course)</td>
<td>ENGWR 301, 302, 303, 481, 482</td>
</tr>
<tr>
<td>1C (one course)</td>
<td>SPEECH 301, 331, 361 (CSU requirement only)</td>
</tr>
</tbody>
</table>

Area 2: Mathematical Concepts and Quantitative Reasoning (3 units, one course)

<table>
<thead>
<tr>
<th>Area 2</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>2A (one course)</td>
<td>MATH 300, 336, 340, 342, 355, 356, 370, 372, 400, 401, 402, 410, 420, PSYC 330, STAT 300, 305</td>
</tr>
</tbody>
</table>

Area 3: Arts and Humanities (9 units, one course from each area)

<table>
<thead>
<tr>
<th>Area 3</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3A Arts (one course)</td>
<td>ARTH 300, 302, 308, 310, 318, 322, 333, 334, 335, MUFHL 300, 308, 310, 311, 315, 321, 330, 400, 401, 410, 411, TA 300, 302, 303, 306, 350, 435, 480; TAFILM 300, 302, 303, 304, 307, 320</td>
</tr>
</tbody>
</table>

Area 3A or 3B (one course) Chosen from 3A or 3B — any course that has not already been used to complete 3A or 3B.

Area 4: Social & Behavioral Sciences (9 units, three courses from at least two different areas)

<table>
<thead>
<tr>
<th>Area 4</th>
<th>Course</th>
</tr>
</thead>
</table>

* Courses appearing in more than one category may be used to satisfy only one category
+ Courses may be counted in 2 areas

Note: Additions to the UC and CSU Intersegmental General Education Transfer Curriculum (IGETC) were released after catalog was printed and have been added per June 2019 Addendum.

2018-2019 IGETC continued on next page
### Area 5: Physical and Biological Sciences
(7-9 units, one course from each area. Lecture course must be completed prior to or concurrently with lab.
Courses used in 5C may also be used in 5A or 5B if listed in these areas)

<table>
<thead>
<tr>
<th>5A Physical Science (one course)</th>
<th>ASTR 300, 310, 320, 330, +481; CHEM +305, +309, +400, +401, +423; GEOS 300, 305, 306, 307, 308; GEOL 300, 305, 310, 320, 325, 330, 345; PHYS 310, 311, +350, +360, +410; PS 300</th>
</tr>
</thead>
<tbody>
<tr>
<td>5B Biological Science (one course)</td>
<td>ANTH 300, 303, 480; BIOL 300, 301, +303, +305, +310, 322, 325, +370, 375, +400, +410, +415, +420, +430, +440, +442, +482; NATR +302, +320; PSYC 310; HEED 308</td>
</tr>
<tr>
<td>5C Lab (one course)</td>
<td>ANTH 301; ASTR 400, +481; BIOL +303, +305, +310, 322, +370, +400, +410, +415, +420, +430, +440, +442, +482; CHEM +305, +309, +400, +401, +423; GEOS 301, 309; GEOL 301, 306, 311, 313, NATR +302, +320; PHYS 312, +350, +360, +410; PS 301; PSYC 311</td>
</tr>
</tbody>
</table>

### Area 6: Language Other Than English (UC requirement only)

| 6A Language – Not English | Proficiency equivalent to two years of high school study in the same language. The following courses at ARC also fulfill this requirement: DEAF 310, 312, 314, 316, 318; FREN 401, 402, 411, 412; GERM 401, 402, 411, 412; ITAL 401, 411, 412; RUSS 401, 402, 411, 413; SPAN 401, 402, 411, 412 |


| One course from each group | Group 1 – POLS 301, 481 |
| Group 2 – HIST 310, 311, 318, 320, 321, 323, 325, 327, 330, 483, 484 |

* Courses appearing in more than one category may be used to satisfy only one category
+ Courses may be counted in 2 areas

Note: Additions to the UC and CSU Intersegmental General Education Transfer Curriculum (IGETC) were released after catalog was printed and have been added per June 2019 Addendum.
Transfer Center

The mission of the Transfer Center is to help students learn of the many options available to them to continue their studies at four-year colleges and universities. ARC is committed to helping students become better informed so that they may plan for their future with as much knowledge and support as possible. The Transfer Center is located in the Counseling Center.

The Transfer Center provides to students and all staff the most current information to ensure a smooth transition to four-year colleges and universities. Application assistance, workshops, events, university tours, current information, resources, and internet access are available to students who are committed to transfer as well as to those exploring the possibility of transfer. Students may talk to community college counselors and meet with admissions advisors from a variety of colleges and universities; California State University (CSU), University of California (UC), and Private/Out-of-State.

Working with ARC counselors, students who meet certain criteria may be eligible for a transfer degree and/or a Transfer Guarantee Program (TAG) with selected four year institutions.

For more information visit: arc.losrios.edu or call (916) 484-8685

External Examinations

Students should be aware that other 2- and 4-year college student/universities may use AP, CLEP, and IB exam scores differently than they are used at American River College, and are urged to meet with a Counselor for more information.

Advanced Placement (AP)

Students may earn units of credit for AP exams as described on pages 76-77 of this Catalog by submitting official CEEB Advanced Placement exam scores to Admissions & Transition Services for evaluation.

International Baccalaureate (IB)

Students may earn units of credit for IB exams as described on page 78 of this Catalog by submitting official IB exam scores to Admissions & Transition Services for evaluation.

College Level Examination Program (CLEP)

Students may earn units of credit for CLEP exams as described on page 79 of this Catalog by submitting official CLEP documentation to Admissions & Transition Services for evaluation.
## AP (Advanced Placement) Exam Scores

- Use of AP Exam Scores for ARC course credit and General Education determined by ARC policy.
- Use of AP Exam Scores for IGETC determined by IGETC Policy.
- Use of AP Exam Scores for CSU GE Certification determined by CSU Policy.

### AMERICAN RIVER COLLEGE

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* with department approval upon review of lab reports
** Student needs to complete a course which covers California State and Local Government in order to complete CSU American Institutions graduation requirement.
# If a student passes more than one AP exam in calculus or computer science, only one examination may be applied to the baccalaureate at a CSU campus.
## A Score of 3 or higher on the AP test qualifies the course to count for GE at ARC.
+ If a student passes more than one AP exam in Physics, only 6 units total may be applied to the baccalaureate, and only 4 units total may be applied to the certification of GE Breadth at a CSU campus.
% Exam meets IGETC science course & lab requirement but only grants 3 units towards the IGETC. Student may need to complete additional coursework to meet the minimum 7 units in IGETC area 5
**IB (International Baccalaureate)**

- Use of IB Exam Scores for ARC course credit and General Education determined by ARC policy.
- Use of IB Exam Scores for IGETC determined by IGETC Policy.
- Use of IB Exam Scores for CSU GE Certification determined by CSU Policy.

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* With department approval upon review of lab reports.

** Taken Prior to Fall, 2013.
## CLEP (College Level Examination Program)*

- Use of CLEP Exam Scores for ARC course credit and General Education determined by ARC policy.
- Use of CLEP Exam Scores for CSU GE Certification determined by CSU Policy.

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<td>College Algebra - Trigonometry</td>
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<td>French Level I**</td>
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<td>Human Growth &amp; Development</td>
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<tr>
<td>Information Systems &amp; Computer Applications</td>
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<tr>
<td>Introduction to Educational Psychology</td>
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<tr>
<td>Introduction to Business Law</td>
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<tr>
<td>Introductory Psychology</td>
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<td>PSYC 300</td>
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<td>Introductory Sociology</td>
<td>50</td>
<td>3</td>
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<td>Natural Sciences</td>
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<tr>
<td>Pre-Calculus</td>
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<td>MATH 370</td>
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<td>Principles of Macroeconomics</td>
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<tr>
<td>Principles of Management</td>
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</tr>
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<td>Principles of Marketing</td>
<td>50</td>
<td>NA</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
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<td>Spanish Level I**</td>
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<td>Trigonometry</td>
<td>50</td>
<td>MATH 330</td>
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<td>Western Civilization I</td>
<td>50</td>
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</tr>
<tr>
<td>Western Civilization II</td>
<td>50</td>
<td>3</td>
</tr>
</tbody>
</table>

* The exams listed are only those exams for which ARC and/or the CSU system awards units of credit.

** If a student passes more than one CLEP examination in the same language other than English, only one examination may be applied to the baccalaureate. For each examination in a language other than English, a passing score of 50 is considered “Level I” and earns six units of baccalaureate credit; “Level II” credit is for the same exam but a higher score (as indicated), and earns additional units of credit and placement in Area C2 of GE Breadth as noted.
• Special Academic Programs

• The ARC College Catalog includes detailed information on all Programs, Degrees and Certificates.

Please Note:
A Catalog Addendum may be published twice during the academic year, listing new programs and changes to existing programs. For details visit the college website at arc.losrios.edu.
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 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 Technical Education. Apprenticeship programs are available in multiple occupations, including:

- Carpenter and Drywall/Lathing
- Electrician
- Ironworker
- Plumbers & Pipefitters
- Sheet Metal

The pattern of Career and Technical Education (CTE) course offerings at American River College is designed to be as flexible as possible in meeting student needs. The college encourages CTE students to plan, with counselor assistance, a course of studies which will prepare the student for a career. Educational programs in this area offer a planned curriculum which can lead to either a certificate, an Associate degree, or transfer to a four-year college. Although many four-year colleges give full or partial credit for some specialized CTE courses, these programs are not primarily designed to satisfy transfer requirements. The student planning a Career and Technical Education major and wishing to transfer to a four-year college should plan a transfer program with the assistance of a college counselor.
Cooperative Work Experience
Education & Internship Program

Cooperative Work Experience Education (WEXP) is an experiential, academic program which allows students in paid or unpaid positions to apply what they have learned in the classroom to a work environment. Upon completion of their Work Experience weekly orientation course, students may earn 1-4 units of credit with a letter grade. The Work Experience Program serves interns, volunteers, and employed students.

Note: See the Work Experience program pages for area specific Work Experience courses.

How the Program Works

Work Experience Program Requirements:

1. Be at least a second-semester (or more) student.
2. Be in good academic standing.
3. Be working in a paid or unpaid internship or job related to career goals. Students not currently in an internship who would like assistance should contact the Work Experience & Internship Program office at (916) 484-8182 or online: arc.losrios.edu.

   Note: Students must have a cooperating employer by the end of the second week of the full 16-week semester, the first week of a twelve week course or the end of the first week of an eight week (or summer session) to remain in the course.

4. Be enrolled and attend a weekly meeting or qualify for the “Returning Student” status (see “Returning Student Requirements” below). Please note that attendance is required for everyone for the first class meeting, a mid-semester meeting, and a final meeting.
5. Be goal oriented, motivated to learn, and have good time management skills.
6. Establish new or expanded on-the-job learning objectives with employer’s assistance that will be documented and evaluated.

   Note: this will be accomplished through the weekly meeting. To assist in a successful experience and learning opportunity, ESL students are recommended to be at a minimum intermediate level in ALL areas (ESL 50) to benefit from participation in the program.

Internships & Volunteer Opportunities

Internships and volunteer experiences provide an opportunity for students to obtain work experience related to their academic or career goals. These opportunities assist students with developing technical skills, exploring possible career choices, building confidence, networking with people in the field, and transitioning for entry or re-entry into the world of work.

Interested students are recommended to apply for an internship at least 2-3 weeks or more prior to the start of the enrollment term and are required to enroll in a Work Experience course. Students who would like assistance should contact the Work Experience & Internship Program office at (916) 484-8182 or go to the campus website for more information arc.losrios.edu.

Students must have a cooperating employer by the end of the second week of the full 16-week semester, the first week of a twelve week course or the end of the first week of an eight week (or summer session) to remain in the course. Units earned are determined by the amount of hours worked from the first week of instruction to the last week of instruction during an enrollment term. Hours exclude the weekly meeting. Grades are determined by performance in the workplace, success with completing required program forms and classroom assignments.

Opportunities for Employees

Work experience (WEXP) also assists our employed students who are interested in advancing within their existing work environment. Through WEXP and approval from the student’s employer supervisor, students can apply what they have learned in the classroom to their job and earn college credit.

Note: Courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific course evaluation.
Work Experience Courses Offered

There are two types of work experience options:
1. Occupational Work Experience
2. General Work Experience

Occupational Work Experience (298 & 498)
Occupational work experience provides students with opportunities to develop or add marketable skills related to their major study programs. These units may count towards Area III, Living Skills of ARC General Education requirements and possible elective units or major units.

Note: Only Work Experience courses numbered 498 are guaranteed transferable to CSU (California State University).

Eligible students should register for 1-4 units. A one unit minimum is required. For unpaid positions one unit of credit may be earned for each 60 hours worked. For paid positions, one unit of credit may be earned for each 75 hours worked. Units earned are determined by the amount of hours worked from the first week of instruction to the last week of instruction during an enrollment term, and success with completing required program forms and classroom assignments. Hours exclude the weekly meeting.

Students may take up to 16 units total across all Work Experience course offerings. Work Experience can be taken a maximum of 4 terms.

Students should also understand Work Experience requirements and unit limitations as defined by your major department requirements. Please talk to a counselor and/or faculty in your major department for more information.

General Work Experience (198)
General Work Experience assists students in learning about the world of work and is open to all students regardless of major. Like Occupational Work Experience, it is designed for students wanting to apply skills learned in the classroom to a work environment. These units may count towards Area III, Living Skills of ARC General Education requirements and possible elective units. **WEXP 198 units are NOT transferable.**

Eligible students should register for 1-3 units (Work Experience 198). A one unit minimum is required. For unpaid positions one unit of credit may be earned for each 60 hours worked. For paid positions, one unit of credit may be earned for each 75 hours worked. Units earned are determined by the amount of hours worked from the first week of instruction to the last week of instruction during an enrollment term, and success with completing program forms and classroom assignments. Hours exclude the weekly course (class time). During any one particular term, a total of 3 units may be earned in General Work Experience 198. Students may take up to 16 units total across all Work Experience course offerings. Work Experience can be taken a maximum of 4 terms.

Types of Work Experience Students

New Student Requirements:
- This is your first time in a Work Experience course.
- You are working in a paid or unpaid internship, job, or volunteer opportunity related to career goals.
- You must attend the weekly orientation (course) which meets once a week. This orientation will focus on workforce preparedness and achieving success in the workplace.
- Your grade and units are earned based on your hours completed, performance in the workplace (developing new skills or expanded skills), completion of required program paperwork, and classroom assignments.

Returning Student Requirements:
- You have completed a Work Experience course with a grade of “C” or better. *(Will be verified by instructor using unofficial transcripts.)*
- You are working in a paid or unpaid internship, job, or volunteer opportunity related to career goals.
- No weekly attendance is required for this status except for the first course meeting, a mid-semester meeting, and a final meeting. Students may also meet individually with the instructor as needed. You must establish new or expanded on-the-job learning objectives with your employer and complete all the necessary program forms as stated by your instructor.
- Your grade and units are earned based on your hours completed, performance in the workplace (developing new skills), completion of required program paperwork, and classroom assignments.

For more information, call (916) 484-8182 or visit the campus website **arc.losrios.edu.**
Independent Study

Students who are in good standing at American River College may pursue their studies and research beyond courses listed in the college catalog through Independent Study. Units taken in Independent Study may not be transferable. Students should consult a counselor regarding acceptance of these units by a specific college or university. Only one Independent Study course may be taken per semester.

Regular meetings between student and professor will be held; examinations or other measures of evaluation, field trips, term papers, and other assignments may be required by the professor.

This program provides an opportunity for students to extend classroom experience in a specific subject, while working independently from a formal classroom setting. Independent Study is an extension of an existing ARC catalog course. One unit of Independent Study equals 54 hours of lab. Independent Study may be taken for 1-3 units. Independent Study cannot be used to repeat or as a substitute for an existing ARC course.

To be eligible for Independent Study, students must 1) have successfully completed the basic regular catalog course at ARC; 2) be enrolled in a regular catalog course; 3) be in good standing.

Application

To apply for Independent Study, the student first discusses his/her educational plan and the transferability of the Independent Study course with a counselor. The student then discusses the option of an Independent Study course with an instructor in the discipline. If the instructor agrees to supervise this course, the student and the instructor will then complete the Independent Studies Petition. The instructor will route the petition for the necessary approval.

If the Independent Studies Petition receives final approval, Admissions & Transition Services will add the class to the student’s schedule and contact the student by way of email to pay the enrollment fees. At the end of the semester, the student will receive a grade as in any regularly scheduled course. The completed petition must be filed by the deadline published in the class schedule in the semester in which the course is to be completed. If the course is not completed by the end of the semester, a new petition must be approved in the subsequent semester, if units are to be granted.

Los Rios Study Abroad Program

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

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

For more information on how to apply for Study Abroad programs, send an email to studyabroad@arc.losrios.edu, call the Study Abroad office at (916) 484-8967 or visit the campus website arc.losrios.edu.
DEGREES AND CERTIFICATES

Accounting Degree
Major Code: 011593A01
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.

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 Opportunities
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.

Requirements for Degree 36 Units
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 103</td>
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<tr>
<td>ACCT 104</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 107</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 111</td>
<td>3</td>
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<tr>
<td>ACCT 301</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 311</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 361</td>
<td>3</td>
</tr>
<tr>
<td>BUS 110</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 302</td>
<td></td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>and a minimum of 8 units from the following:</td>
<td></td>
</tr>
<tr>
<td>ACCT 101</td>
<td>3</td>
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<tr>
<td>ACCT 121</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 125</td>
<td>4</td>
</tr>
</tbody>
</table>

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

Accounting Certificate
Major Code: 011593C01
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.

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 Opportunities
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.

See losrios.edu/gainful-emp-info/gedt.php?major=011593C01 for Gainful Employment Disclosure.

(continued on next page)
# Accounting

## (Accounting Certificate continued)

<table>
<thead>
<tr>
<th>Requirements for Certificate</th>
<th>36 Units</th>
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<tbody>
<tr>
<td>ACCT 103</td>
<td>Intermediate Accounting - Part I</td>
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<tr>
<td>ACCT 104</td>
<td>Intermediate Accounting - Part II</td>
</tr>
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<td>ACCT 107</td>
<td>Auditing</td>
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<td>ACCT 111</td>
<td>Cost Accounting</td>
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<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
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<tr>
<td>ACCT 311</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>ACCT 361</td>
<td>Ethics, Fraud, and Legal Issues for Accountants</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Business Economics (3)</td>
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<tr>
<td>or ECON 302</td>
<td>Principles of Macroeconomics (3)</td>
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<tr>
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<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
</tr>
<tr>
<td>ACCT 121</td>
<td>Payroll Accounting (3)</td>
</tr>
<tr>
<td>ACCT 125</td>
<td>Federal and State Individual Taxation (4)</td>
</tr>
<tr>
<td>ACCT 128</td>
<td>Taxation of Corporations, Partnerships, Estates, and Trusts (4)</td>
</tr>
<tr>
<td>ACCT 153</td>
<td>Governmental Accounting (3)</td>
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<tr>
<td>ACCT 341</td>
<td>Computerized Accounting (2)</td>
</tr>
<tr>
<td>ACCT 343</td>
<td>Computer Spreadsheet Applications for Accounting (2)</td>
</tr>
<tr>
<td>or CISA 316</td>
<td>Intermediate Electronic Spreadsheets (2)</td>
</tr>
<tr>
<td>PROPTX 310</td>
<td>Introduction to Appraising for Property Tax Purposes (1.5)</td>
</tr>
<tr>
<td>PROPTX 311</td>
<td>Appraisal of Machinery &amp; Equipment for Property Tax Purposes (1.5)</td>
</tr>
</tbody>
</table>

## Accounting Clerk Certificate

**Major Code: 01149C0**

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.

### 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 communications skills into the accounting workplace

See losrios.edu/gainful-emp-info/gedt.php?major=01149C01 for Gainful Employment Disclosure.

<table>
<thead>
<tr>
<th>Requirements for Certificate</th>
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<tr>
<td>ACCT 121</td>
<td>Payroll Accounting</td>
</tr>
<tr>
<td>ACCT 341</td>
<td>Computerized Accounting</td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
</tr>
<tr>
<td>A minimum of 2 units from the following:</td>
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</tr>
<tr>
<td>ACCT 343</td>
<td>Computer Spreadsheet Applications for Accounting (2)</td>
</tr>
<tr>
<td>BUS/TEC 310</td>
<td>Introduction to Word/Information Processing (3)</td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing (2)</td>
</tr>
<tr>
<td>CISA 316</td>
<td>Intermediate Electronic Spreadsheets (2)</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
</tr>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting (4)</td>
</tr>
</tbody>
</table>

## Taxation Certificate

**Major Code: 011495C01**

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.

### 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.

<table>
<thead>
<tr>
<th>Requirements for Certificate</th>
<th>14 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 125</td>
<td>Federal and State Individual Taxation</td>
</tr>
<tr>
<td>ACCT 128</td>
<td>Taxation of Corporations, Partnerships, Estates, and Trusts</td>
</tr>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>A minimum of 2 units from the following:</td>
<td>2</td>
</tr>
<tr>
<td>ACCT 121</td>
<td>Payroll Accounting</td>
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<tr>
<td>ACCT 341</td>
<td>Computerized Accounting (3)</td>
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<tr>
<td>ACCT 343</td>
<td>Computer Spreadsheet Applications for Accounting (2)</td>
</tr>
<tr>
<td>ACCT 498</td>
<td>Work Experience in Accounting (1-4)</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
</tr>
<tr>
<td>PROPTX 310</td>
<td>Introduction to Appraising for Property Tax Purposes (1.5)</td>
</tr>
<tr>
<td>PROPTX 311</td>
<td>Appraisal of Machinery &amp; Equipment for Property Tax Purposes (1.5)</td>
</tr>
</tbody>
</table>

## Accounting

**Advisory:** BUS 105, MATH 100, MATH 104, or MATH 132; AND eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300, OR ESLR 340 AND ESLS 340.

**Hours:** 54 hours LEC

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

**Prerequisite:** ACCT 301 with a grade of “C” or better

**Hours:** 72 hours LEC

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

**Prerequisite:** ACCT 301 with a grade of “C” or better

**Advisory:** ACCT 103

**Hours:** 72 hours LEC

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 3 Units
Prerequisite: ACCT 301 with a grade of "C" or better
Advisory: ACCT 103; ACCT 104; BUS 105 or MATH 100, 104 or 132; AND eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300, OR ESLR 340 AND ESLW 340.
Hours: 54 hours LEC
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 3 Units
Prerequisite: ACCT 311 with a grade of "C" or better
Hours: 54 hours LEC
This course covers advanced managerial accounting. Topics include recording, classifying, reporting, and analyzing costs as well as examining different costing systems. The course 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 3 Units
Prerequisite: ACCT 101 or 301 with a grade of "C" or better
Hours: 54 hours LEC
This course covers current practices in payroll accounting and tax reporting, including federal and state laws that affect payroll records and reports. Topics include both manual and computer payroll systems with hands-on computer applications.

ACCT 125 Federal and State Individual Taxation 4 Units
Advisory: ACCT 101, 301, or 481; AND eligible for ENGRD 116 AND ENGWR 102; OR ESLR 320 AND ESLW 320.
Hours: 72 hours LEC
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. The course is a California Tax Education Council (CTEC) qualifying education course, and is offered to members of the community to enable them to become a California Registered Tax Return Preparer (CRTTP).

ACCT 128 Taxation of Corporations, Partnerships, Estates, and Trusts 4 Units
Prerequisite: ACCT 125 and 301 with grades of "C" or better
Hours: 72 hours LEC
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. (C-ID ACCT 110)

ACCT 132 Taxation of Corporations, Partnerships, Estates, and Trusts 4 Units
Prerequisite: ACCT 101 or 301 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 72 hours LEC
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 and service environments. (C-ID ACCT 120)

ACCT 153 Governmental Accounting 3 Units
Prerequisite: ACCT 301 or 481 with a grade of "C" or better
Advisory: ENGRD 116 OR ESLR 320 and ESLW 320; ESLR 320; MATH 100, 104, 132 or BUS 105
Course Transferable to CSU
Hours: 54 hours LEC
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 1-3 Units
Prerequisite: None
Hours: 54-162 hours LAB
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 301 Financial Accounting 4 Units
Advisory: ACCT 101; AND BUS 105 or MATH 100, 104, or 132; AND eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300, OR ESLR 340 AND ESLW 340.
Course Transferable to UC/CSU
Hours: 72 hours LEC
This is the study of accounting as an information system, examining why it is important and how it is used by investors, creditors, and others to make decisions. The course covers 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 includes issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics. (C-ID ACCT 110)

ACCT 311 Managerial Accounting 4 Units
Prerequisite: ACCT 301 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course 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 and service environments. (C-ID ACCT 120)

ACCT 341 Computerized Accounting 3 Units
Prerequisite: ACCT 101 or 301 with a grade of "C" or better
Advisory: CISC 100 or 300
Course Transferable to CSU
Hours: 54 hours LEC
This course covers major areas of computerized accounting system for small business 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 Intuit certified QB certification exam.

ACCT 343 Computer Spreadsheet Applications for Accounting 2 Units
Corequisite: ACCT 301 or 481
Advisory: CISA 315; ENGRD 102 and ENGRD 116 OR ESLR 320 and ESLW 320; ESLR 320; MATH 100, 104, 132 or BUS 105
Course Transferable to CSU
Hours: 27 hours LEC, 27 hours LAB
This course combines the study of accounting and computer spreadsheets. Projects include topics in financial accounting, managerial accounting, and financial analysis. The course focuses on accuracy, clarity, creativity, adaptability, and presentation skills.
ACCOUNTING

ACCT 361 Ethics, Fraud, and Legal Issues for Accountants 3 Units
Advisory: ACCT 107 and 301
Course Transferable to CSU
Hours: 54 hours LEC
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 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300, OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to accounting with a cooperating site supervisor. Students are advised to consult with the Accounting Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.

Property Tax

PROPTX 310 Introduction to Appraising for Property Tax Purposes 1.5 Units
Advisory: MATH 100, 104, or 132; AND eligible for ENGRD 310 or ENGRD 312 AND ENGW 300, OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 30 hours LEC
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 1.5 Units
Advisory: PROPTX 110; AND MATH 100, 104, or 132; AND eligible for ENGRD 310 or ENGRD 312 AND ENGW 300, OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 32 hours LEC
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.
DEGREES

Administration of Justice Degree

Major Code: 010890A01
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 find that this curriculum has flexibility that allows them to prepare for specific fields 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 officers, probation officers, and correctional administrators.

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 Opportunities

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).

Requirements for Degree 24 Units

To maximize the successful completion of this program it is suggested the student first enroll in ADMJ 300. Other ADMJ courses may be taken concurrently.

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:

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)

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

Administration of Justice A.S. for Transfer Degree

Major Code, CSU GE: 010890A01
Major Code, IGETC: 010890A02

The Associate in Science in Administration of Justice for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

The Associate in Science in Administration of Justice for Transfer (A.S.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

Students desiring to enter a career concerned with administration of justice will find that this curriculum has flexibility that allows them to prepare for specific fields included in that broad category.

(continued on next page)
(Administration of Justice A.S. for Transfer Degree continued)

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 laws and procedures for the collection and use of evidence.
- communicate effectively in written and oral formats.

Career Opportunities

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).

Requirements for Degree 18 Units
ADMJ 300 Introduction to Administration of Justice 3 Units
ADMJ 320 Concepts of Criminal Law 3 Units
A minimum of 6 units from the following: 6 Units
ADMJ 302 Community Relations: Multicultural Issues (3)
ADMJ 304 Juvenile Delinquency (3)
ADMJ 323 Legal Aspects of Evidence (3)
ADMJ 330 Criminal Investigation (3)
ADMJ 340 Introduction to Correctional Services (3)
A minimum of 6 units from the following: 6 Units
PSYC 300 General Principles (3)
PSYC 480 Honors General Principles (3)
SOC 300 Introductory Sociology (3)
SOC 480 Introductory Sociology - Honors (3)
STAT 300 Introduction to Probability and Statistics (4)

Requirements for Certificate 9 Units
HLS 300 Introduction to Homeland Security 3 Units
HLS 302 Intelligence Analysis and Security Management 3 Units
HLS 304 Transportation and Border Security 3 Units

Administration of Justice

ADMJ 300 Introduction to Administration of Justice 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESL 340 AND ESLW 340.
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID AJ 110)

ADMJ 301 Investigative Report Writing 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESL 340 AND ESLW 340
Course Transferable to CSU
Hours: 54 hours LEC
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.

Homeland Security

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.
ADMJ 302 Community Relations: Multicultural Issues 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3; CSU Area D7
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID AJ 160)

ADMJ 304 Juvenile Delinquency 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); CSU Area D0
Course Transferable to CSU
Hours: 54 hours LEC
This course examines juvenile delinquency from a variety of perspectives, including the concept of delinquency, theories of delinquency, social, community, and environmental influences on delinquency and the juvenile justice system (past and present). An overview of adolescent problems and current approaches being utilized to confront these problems is discussed. It examines a variety of the causes of juvenile delinquency, as well as suggestions for the treatment of delinquency at both the state and local levels. It also examines the nature and extent of delinquency with relation to gender differences, family dynamics, peer and gang groups, schools, drug use, and the juvenile justice courts. (C-ID AJ 220)

ADMJ 309 Career Preparation for Law Enforcement Occupations 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID AJ 120)

ADMJ 322 Criminal Procedures 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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. (C-ID AJ 122)

ADMJ 323 Legal Aspects of Evidence 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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. (C-ID AJ 124)

ADMJ 330 Criminal Investigation 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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. (C-ID AJ 140)

ADMJ 331 Patrol Procedures 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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. (C-ID AJ 200)
Anthropology Degree
Major Code: 011522A01
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.

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 Opportunities
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.

Requirements for Degree  18 Units
ANTH 300 Biological Anthropology (3) .................................................3
or ANTH 480 Honors Biological Anthropology (3) ..........................3
ANTH 301 Biological Anthropology Laboratory.............................1
ANTH 310 Cultural Anthropology ...................................................3
or ANTH 481 Honors Cultural Anthropology (3) ..........................3
ANTH 320 Introduction to Archaeology and World Prehistory .........3

And a minimum of 8 units from the following: .......................................8
ANTH 303 Introduction to Forensic Anthropology (3) .................3
ANTH 319 Visual Anthropology: Introduction to Ethnographic Film (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, Sexualities and Gender (3)
ANTH 341 Introduction to Linguistics (3)
ANTH 370 Primatology (3)
ANTH 372 Primatology Field Studies (2)
ANTH 494 Topics in Anthropology (1 - 3)

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

Anthropology A.A. for Transfer (AA-T) Degree
Major Code, CSU GE: 011523A01
Major Code, IGETC: 011523A02
The Associate in Arts degree in Anthropology for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Arts degree in Anthropology for Transfer (AA-T) may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

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. A degree in anthropology provides the student with basic skills in critical analysis, application of the scientific method, and cross-cultural understanding.

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 Opportunities
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 occupations ranging from archaeological excavation and museum management, the analysis of cultures, linguistics, forensics, primatology, and education. They also consult with governmental, business, and educational institutions.

Requirements for Degree  19 - 20 Units
ANTH 300 Biological Anthropology (3) .................................................3
or ANTH 480 Honors Biological Anthropology (3) ..........................3
ANTH 301 Biological Anthropology Laboratory.............................1
ANTH 310 Cultural Anthropology ...................................................3
or ANTH 481 Honors Cultural Anthropology (3) ..........................3
ANTH 320 Introduction to Archaeology and World Prehistory .........3
STAT 300 Introduction to Probability and Statistics (4) ..............3-4
or PSYC 330 Introductory Statistics for the Behavioral Sciences (3)
And a minimum of 6 units from the following: 6
A minimum of 3 units must come from the Anthropology Major Prep electives. The other 3 units may come from either the Anthropology Major Prep electives or the General Electives listed below.

**Anthropology Major Prep Electives**

- **ANTH 303** Introduction to Forensic Anthropology (3)
- **ANTH 330** Magic, Witchcraft, and Religion (3)
- **ANTH 333** American Indians of California (3)
- **ANTH 334** Native Peoples of North America (3)
- **ANTH 341** Introduction to Linguistics (3)

**General Electives**

- **ANTH 319** Visual Anthropology: Introduction to Ethnographic Film (3)
- **ANTH 321** Ancient Technology (3)
- **ANTH 335** Research Methods in Anthropology (3)
- **ANTH 370** Primatology (3)
- **GEOL 310** Human Geography: Exploring Earth's Cultural Landscapes (3)
- **GEOL 300** Physical Geology (3)
- **MUFHL 330** World Music (3)
- **SOC 320** Minorities in America (3)

**Associate in Arts for Transfer Degree Requirements:**

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

**ANTH 300 Biological Anthropology 3 Units**

Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340
General Education: AAAS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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 biotechnical 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. (C-ID ANTH 110)

**ANTH 301 Biological Anthropology Laboratory 1 Unit**

Corequisite: ANTH 300
General Education: CSU Area B3; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LAB

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. (C-ID ANTH 115L)

**ANTH 303 Introduction to Forensic Anthropology 3 Units**

Advisory: BIOL 102, BIOL 115, BIOL 430, OR ANTH 300 and 301; AND eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is an overview of forensic anthropology, an applied field of physical 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.

**ANTH 310 Cultural Anthropology 3 Units**

Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340
General Education: AAAS Area V(b); AAAS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC

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. (C-ID ANTH 120)

**ANTH 319 Visual Anthropology: Introduction to Ethnographic Film 3 Units**

Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340
General Education: AAAS Area V(b); CSU Area D1
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course introduces the use of film by anthropologists as a research and educational tool. A series of films depicting different cultures from around the world are viewed and evaluated. Various attributes of ethnographic film and its treatment by a number of anthropological filmmakers are examined.

**ANTH 320 Introduction to Archaeology and World Prehistory 3 Units**

Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340
General Education: AAAS Area V(b); CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is an introduction to the theories, concepts, and methods employed by the archaeologist in the study of human history and pre-history. The development and diverse evolution of social and cultural systems are emphasized. The challenges and achievements of non-literate and traditional cultures, diverse communities, and social classes over time are also explored. (C-ID ANTH 150)
ANTH 321 Ancient Technology 3 Units
Advisory: ANTH 320; Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area V(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a cross-cultural study of supernatural beliefs and associated rituals in traditional societies. Emphasis is on understanding the role of beliefs within the broader social context. In addition, this course examines the general functions of ritual and mythology in reinforcing cultural ideals and ethics. Similarities and differences between traditional beliefs and world religions are also explored.

ANTH 333 American Indians of California 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introductory survey of traditional Native American societies. 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 3 Units
Prerequisite: ANTH 300 or 310 with a grade of "C" or better
General Education: IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; CSU Area D3; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
The 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, 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.

ANTH 341 Introduction to Linguistics 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area V(b); AA/AS Area II(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Advisory: ANTH 300
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 372 Primatology Field Studies 2 Units
Advisory: ANTH 300 and 480; AND eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC
This course provides practical experience in non-human primate observational studies. The Sacramento Zoo serves as the field site where observations on non-human primates are conducted. Focus is on training in research methodology and observational techniques. Field trips to the Sacramento Zoo are required.
ANTH 391 Life and Culture Study Abroad 3 Units
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).
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Enrollment Limitation: Eligibility for the Honors Program.
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the science of 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. (C-ID ANTH 110)

ANTH 481 Honors Cultural Anthropology 3 Units
Prerequisite: Placement into ENGWR 480 through the assessment process.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the 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. (C-ID ANTH 120)

ANTH 495 Independent Studies in Anthropology 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
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 Technical Education.

DEGREES AND CERTIFICATES

CARPENTER APPRENTICESHIP

Major Code, degree: 011247A01
Major Code, certificate: 011247C01

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.

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.

Career Opportunities

Upon completion of the Carpenter Apprenticeship degree or certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, utilities, and facilities management. Students may also further their career as a licensed contractor after completing the degree program.

For more information, contact:
Program Director
800 Chadbourne Rd, Suite A
Fairfield, CA 95485
(707) 399-2880

See losrios.edu/gainful-emp-info/gedt.php?major=011247C01 for Gainful Employment Disclosure.

Requirements Degree or Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CARPT 107</td>
<td>Rigging</td>
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<tr>
<td>CARPT 110</td>
<td>Foundations and Floors</td>
<td>1.5</td>
</tr>
<tr>
<td>CARPT 111</td>
<td>Structural Framing</td>
<td>1.5</td>
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<tr>
<td>CARPT 114</td>
<td>Form Detailing, Construction &amp; Erection</td>
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</tr>
<tr>
<td>CARPT 120</td>
<td>Exterior Finish</td>
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<tr>
<td>CARPT 122</td>
<td>Interior Finish</td>
<td>1.5</td>
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</tbody>
</table>

See losrios.edu/gainful-emp-info/gedt.php?major=011247C01 for Gainful Employment Disclosure.
CARPT 124  Commercial Door Hardware ............................................. 1.5
CARPT 130  Layout/Leveling Construction Site Practice ........................ 1.5
CARPT 140  Interior Systems ................................................................. 1.3
CARPT 142  Engineered Structural Systems ......................................... 1
CARPT 150  Concrete - Precast and Prestressed ................................. 1
CARPT 155  Commercial Concrete ......................................................... 1.5
CARPT 160  Blueprint Reading-Residential ......................................... 1.3
CARPT 162  Blueprint Reading-Commercial ....................................... 1.3
CARPT 170  Roof Framing ................................................................. 1.5
CARPT 180  Stair Building ................................................................. 1
CARPT 190  Introduction to Welding and Cutting .................................. 1
And a minimum of 16 units from the following: ........................................ 16
CARPT 298  Work Experience in Carpenters Apprenticeship (1 - 4)

Associate Degree Requirements: The Carpenter Apprenticeship Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Drywall/Lathing Apprenticeship

Major Code, degree: 011512A01
Major Code, certificate: 011512C01

The Drywall/Lathing Apprenticeship 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, metal framing, blueprint reading, exterior/interior wall finishes, welding, residential and commercial construction process, building codes, estimation, and various construction topics.

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, layout, 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 with given information such as blueprints, specifications, verbal and written information.

Career Opportunities
Upon completion of the Drywall/Lathing Apprenticeship degree, 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.

For more information contact:

Program Director
8000 Chadbourne Rd, Suite A
Fairfield, CA 95485
(707) 399-2880

See losrios.edu/gainful-emp-info/gedt.php?major=011512C01 for Gainful Employment Disclosure.

Requirements for Degree or Certificate  41 Units
DRLTH 100  Introduction to the Trade .................................................... 2
DRLTH 102  Basic Applications ............................................................. 1.5
DRLTH 105  Mathematics for Drywall/Lathers ....................................... 2
DRLTH 110  Residential Metal Framing ................................................. 1.5
DRLTH 112  Doors, Windows, Exterior Systems/Building Documents ...... 1.5
DRLTH 120  Blueprint Reading I ............................................................. 1.5
DRLTH 121  Blueprint Reading II ............................................................ 1.5
DRLTH 122  Blueprint Reading III ......................................................... 1.5
DRLTH 130  Welding I ........................................................................... 1.5
DRLTH 131  Welding II .......................................................................... 1.5
DRLTH 140  Exterior/Advanced Fire Control System and Partitions .. 1.5
DRLTH 142  Exterior Systems and Trims .............................................. 1.5
DRLTH 150  Interior Metal Lathing System, Sound Control .................. 1.5
DRLTH 160  Ceilings, Shaft Protection and Demountable Partitions .. 1.5
DRLTH 162  Arches, Furring and Advanced Systems ......................... 1.5
DRLTH 170  Advanced Construction Techniques .................................. 1.5
And a minimum of 16 units from the following: ........................................ 16
DRLTH 298  Work Experience Drywall/Lathing Apprenticeship (1 - 4)

Associate Degree Requirements: The Drywall/Lathing Apprenticeship Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Electrical Apprenticeship

Major Code, degree: 011303A01
Major Code, certificate: 011303C01

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.

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 mathematics in calculating ac and 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.
• describe functions of instrumentation in industrial process control systems.

(continued on next page)
### Career Opportunities

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. With the degree, students may further their career as licensed contractors.

For more information contact:

Program Director

2836 El Centro Rd.
Sacramento, CA 95833

(916) 646-6688

### Requirements for Degree or Certificate 50.4 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ELECT 110</td>
<td>Electrical Apprenticeship I</td>
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<tr>
<td>ELECT 111</td>
<td>Electrical Apprenticeship II</td>
<td>3.3</td>
</tr>
<tr>
<td>ELECT 120</td>
<td>Electrical Apprenticeship III</td>
<td>3.3</td>
</tr>
<tr>
<td>ELECT 121</td>
<td>Electrical Apprenticeship IV</td>
<td>3.3</td>
</tr>
<tr>
<td>ELECT 130</td>
<td>Electrical Apprenticeship V</td>
<td>3.3</td>
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<tr>
<td>ELECT 140</td>
<td>Electrical Apprenticeship VI</td>
<td>3.3</td>
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<tr>
<td>ELECT 141</td>
<td>Electrical Apprenticeship VII</td>
<td>3.3</td>
</tr>
<tr>
<td>ELECT 150</td>
<td>Electrical Apprenticeship IX</td>
<td>3.3</td>
</tr>
<tr>
<td>ELECT 151</td>
<td>Electrical Apprenticeship X</td>
<td>3.3</td>
</tr>
<tr>
<td>And a minimum of 16 units from the following:</td>
<td></td>
<td>16</td>
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<tr>
<td>ELECT 298</td>
<td>Work Experience in Electricians Apprenticeship (1-4)</td>
<td></td>
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</tbody>
</table>

**Associate Degree Requirements:** The Electrical Apprenticeship Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

### Ironworkers Apprenticeship

Major Code, degree: 011580A01

Major Code, certificate: 011580C01

This program includes training for Field Ironworkers and Reinforcing Ironworkers, provided in major ironworker components to meet Division of Apprenticeship Standards (DAS) guidelines.

For more information contact:

Program Director

3524 51st Ave
Sacramento, CA 95823

(916) 428-7420

See losrios.edu/gainful-emp-info/gedt.php?major=011580C01 for Gainful Employment Disclosure

### Student Learning Outcomes

**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.
Career Opportunities
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.

Requirements for Certificate 28.5 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

Sheet Metal Apprenticeship
Major Code, degree: 011249A01
Major Code, certificate: 011249C01

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.

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 Opportunities
Upon completion of the Sheet Metal Apprenticeship program, 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.

For more information contact:
Program Director
1624 Silica Avenue
Sacramento, CA 95815
(916) 922-9381

See losrios.edu/gainful-emp-info/gedt.php?major=011249C01 for Gainful Employment Disclosure

Requirements for Degree or Certificate 54 Units
SHME 100 Sheet Metal Apprenticeship I ................................................. 3.3
SHME 101 Sheet Metal Apprenticeship II ................................................. 3.3
SHME 110 Sheet Metal Apprenticeship III .............................................. 3.3
SHME 111 Sheet Metal Apprenticeship IV .............................................. 3.3
SHME 120 Sheet Metal Apprenticeship V .............................................. 3.3
SHME 121 Sheet Metal Apprenticeship VI .............................................. 3.3
SHME 130 Sheet Metal Apprenticeship VII ............................................ 3.3
SHME 131 Sheet Metal Apprenticeship VIII .......................................... 3.3
SHME 140 Sheet Metal Apprenticeship IX .............................................. 3.3
SHME 141 Sheet Metal Apprenticeship X .............................................. 3.3
SHME 150 Sheet Metal Welding I .......................................................... 2.5
SHME 151 Sheet Metal Welding II .......................................................... 2.5

A minimum of 16 units from the following: ........................................ 16
SHME 298 Work Experience in Sheet Metal Apprenticeship (1 - 4)

Associate Degree Requirements: The Sheet Metal Apprenticeship Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Sheet Metal Residential Apprenticeship
Major Code: 011390C01

This is a two-year, four-semester certificated Sheet Metal Residential Apprenticeship Program. The program concentrates on training apprentices to the specific levels required for residential and light commercial construction sites and has been approved by the State of California Department of Apprenticeship Standards.

Enrollment Eligibility
To be eligible for enrollment in the program, the student must meet the following criteria:
• Must be a Registered Sheet Metal Residential Apprentice

Student Learning Outcomes

Upon completion of this program, the student will be able to:
• apply safety procedures on residential job-sites.
• analyze and interpret residential construction blueprints.
• apply construction mathematics in calculating pattern development of sheet metal products.
• identify various metals, gages, fasteners, and sealants used in sheet metal fabrication.
• design and size a residential duct system.
• demonstrate proper soldering on sheet metal fabrication.

Career Opportunities

Upon completion of the Sheet Metal Residential Apprenticeship program, students may find employment in the following industry sectors: government, residential, and light commercial construction and maintenance. See losrios.edu/gainful-emp-info/gedt.php?major=011390C01 for Gainful Employment Disclosure.

Requirements for Certificate 28 Units
SMRA 100 Sheet Metal Residential Apprenticeship I .................................. 3
SMRA 101 Sheet Metal Residential Apprenticeship II .................................. 3
SMRA 110 Sheet Metal Residential Apprenticeship III ................................ 3
SMRA 111 Sheet Metal Residential Apprenticeship IV ................................ 3

A minimum of 16 units from the following: ........................................ 16
SHME 298 Work Experience in Sheet Metal Apprenticeship (1 - 4)
**Sheet Metal Service Technician Apprenticeship**  
**Major Code, degree:** 01X0318A01  
**Major Code, certificate:** 01X0318C01

The Sheet Metal Service Technician Apprenticeship Associate of Arts and 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.

**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 Opportunities**

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.

See losrios.edu/gainful-emp-info/gedt.php?major=01X0318C01 for Gainful Employment Disclosure.

**Requirements for Degree or Certificate**  
**54.2 Units**

- **SHME 100** Sheet Metal Apprenticeship I .......................... 3.3
- **SHME 101** Sheet Metal Apprenticeship II .......................... 3.3
- **SHME 110** Sheet Metal Apprenticeship III .......................... 3.3
- **SHME 111** Sheet Metal Apprenticeship IV ................................ 3.3
- **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

*Preparation for Apprenticeship*

- **SHME 298** Work Experience in Sheet Metal Apprenticeship (1-4) ................................ 16

**Associate Degree Requirements:** The Sheet Metal Service Technician Apprenticeship Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

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**Pre-Apprenticeship Certificate**

**Major Code:** 011246C01

This program prepares students for entry into an apprenticeship program in the commercial and industrial building and construction industries. Topics include Leadership in Energy and Environmental Design (LEED) processes, green technologies, green building techniques, infrastructure, and transportation projects.

**Student Learning Outcomes**

*Upon completion of this program, the student will be able to:*

- describe basic skills required for the construction of roads, bridges, levees, and rail.
- describe the Leadership in Energy and Environmental Design (LEED) rating process.
- identify green alternatives to conventional building practices and describe the pros and cons of those alternatives.
- apply proper lifting/movement techniques applicable to green technology workforce occupations.
- determine the validity of fitness and health information using the scientific method and the relationship between scientific research and established knowledge.
- implement a personal fitness plan using proper strength and cardiovascular training.

See losrios.edu/gainful-emp-info/gedt.php?major=011246C01 for Gainful Employment Disclosure.

**Requirements for Certificate**  
**16 Units**

- **PREAP 111** Infrastructure Pre-Apprenticeship ........................................ 7
- **PREAP 141** Green Technology Pre-Apprenticeship ........................................ 7
- **FITNS 101** Green Technology Workforce Wellness ........................................ 1
- **FITNS 102** Infrastructure Workforce Wellness ........................................ 1

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**DEPARTMENT CERTIFICATES**

**Green Technology Pre-Apprenticeship Certificate**

This certificate prepares students for entry into an apprenticeship program in the commercial and industrial building and construction industries. Topics include green building practices, construction job site safety requirements, construction mathematics, and apprenticeship entry requirements.

**Student Learning Outcomes**

*Upon completion of this program, the student will be able to:*

- explain safety regulations and safe working conditions for apprenticeship training.
- identify construction practices used by different building trades such as sheet metal workers, electricians, plumbers, pipe-fitters, and carpenters.
- describe the life cycle phases of a building and impacts on the green environment over its life cycle.

**Requirements for Certificate**  
**8 Units**

- **FITNS 101** Green Technology Workforce Wellness ........................................ 1
- **PREAP 141** Green Technology Pre-Apprenticeship ........................................ 7
Infrastructure Pre-Apprenticeship Certificate

This certificate prepares students for entry into an apprenticeship program in the infrastructure industries such as bridge, levee, and road construction. Topics include bridge construction practices, construction job site safety requirements, construction mathematics, and apprenticeship entry requirements.

Student Learning Outcomes
Upon completion of this program, the student will be able to:

• explain safety regulations and safe working conditions for apprenticeship training.

• identify construction practices used by different building trades such as carpenters, bricklayers, pile-drivers, cement masons, laborers, operating engineers, and surveyors.

• describe the construction processes involved in a typical bridge building.

Requirements for Certificate 8 Units
FITNS 102 Infrastructure Workforce Wellness .............................................1
PREAP 111 Infrastructure Pre-Apprenticeship .............................................7

Utilities Worker Pre-Apprenticeship Certificate

This certificate prepares students for entry into an apprenticeship program in the utility industry. Topics include job-site safety requirements, blueprint reading, electrical power distribution, utility pole climbing, and apprenticeship preparation.

Student Learning Outcomes
Upon completion of this program, the student will be able to:

• explain electrical fundamentals such as Ohm's and Watt's Law.

• define terms and vocabulary used in the utility industry.

• explain electrical and gas distribution for the utility industry.

• identify safety laws, regulations, and safe working conditions for apprenticeship.

• describe effective conflict resolution methods.

• describe the functions of transformers, electrical generators, and electrical equipment.

Career Opportunities
This program provides opportunities for entry into the utility industry where there is high demand for trained entry level workers.

Requirements for Certificate 10.5 Units
FITNS 100 Utility Workforce Wellness ..................................................1
PREAP 122 Pre-Apprenticeship for Utility Workers ...................................8
MATH 145 Mathematics for the Trades ..................................................1.5

Requirements for Certificate 10.5 Units
FITNS 100 Utility Workforce Wellness ..................................................1
PREAP 122 Pre-Apprenticeship for Utility Workers ...................................8
MATH 145 Mathematics for the Trades ..................................................1.5

Carpenters Apprenticeship

CARPT 101 Aerial Lift Safety, Construction Math, and the Apprentice 1.5 Units
Enrollment Limitation: Must be a registered carpenter Apprentice.
Hours: 24 hours LEC; 12 hours LAB

This course introduces the beginning carpenter apprentice to industry safety procedures for aerial lift use, and hand and power tool safety and maintenance. It also covers construction math, financial literacy, and the role and responsibilities of the apprentice.

CARPT 106 Introduction to Apprenticeship 1.5 Units
Enrollment Limitation: Registered Carpenter Apprentice
Hours: 22 hours LEC; 15 hours LAB

This course is an introduction to apprenticeship, tools, safety, and construction job sites in the commercial and industrial building sectors.

CARPT 107 Rigging 1.5 Units
Enrollment Limitation: Registered Carpenter Apprentice
Hours: 22 hours LEC; 15 hours LAB

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.

CARPT 108 Modular System Installer Safety 1.5 Units
Enrollment Limitation: Must be a registered carpentry modular systems installer apprentice.
Hours: 24 hours LEC; 12 hours LAB

This course is an introduction to apprenticeship, tools, safety, and construction job sites in the commercial and industrial building sectors. It also covers discrimination and harassment on the job site.

CARPT 109 Introduction to Office Modular Systems Installation 1 Unit
Enrollment Limitation: Must be a registered carpentry modular systems installer apprentice.
Hours: 18 hours LEC; 18 hours LAB

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.

CARPT 110 Foundations and Floors 1.5 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 22 hours LEC; 15 hours LAB

This course covers layout, forming, framing, joist, sub-flooring, and foundation construction.

CARPT 111 Modular Systems Applications 1 Unit
Enrollment Limitation: Must be a registered carpentry modular systems installer apprentice.
Hours: 15 hours LEC; 21 hours LAB

This course introduces the modular system installer apprentice to proper tool and equipment applications required while assembling and disassembling modular office furniture systems. It also covers personal financial literacy.

CARPT 112 Structural Framing 1.5 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 22 hours LEC; 15 hours LAB

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.
CARPT 114 Form Detailing, Construction & Erection 1 Unit
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 9 hours LEC; 27 hours LAB
This course covers planning and building of form work, construction and erection of various concrete forms, and construction materials and methods. New building materials such as recycled and alternative materials are explored.

CARPT 115 Floor to Ceiling Wall System Construction 1 Unit
Enrollment Limitation: Must be a registered carpentry modular systems installer apprentice.
Hours: 11 hours LEC; 25 hours LAB
This course introduces the modular system installer apprentice to floor to ceiling modular wall construction. It also covers blueprint reading and understanding manufacturers’ system components and parts.

CARPT 120 Exterior Finish 1.5 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 22 hours LEC; 15 hours LAB
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.

CARPT 122 Interior Finish 1.5 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 22 hours LEC; 15 hours LAB
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.

CARPT 124 Commercial Door Hardware 1.5 Units
Enrollment Limitation: Registered Carpenter Apprentice
Hours: 22 hours LEC; 15 hours LAB
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 Fine Furnishings, Drapery, and Window Coverings 1 Unit
Enrollment Limitation: Must be a registered carpentry modular systems installer apprentice.
Hours: 13 hours LEC; 23 hours LAB
This course introduces the modular system 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.

CARPT 130 Layout/Leveling Construction Site Practice 1.5 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 22.5 hours LEC; 13.5 hours LAB
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.

CARPT 131 Introduction to Working Drawings, Construction Math and Fire Stop Installation 1.5 Units
Enrollment Limitation: Must be a registered Insulator Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 1.5 Units
Enrollment Limitation: Must be a registered Insulator Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces Insulator Apprentices to residential blueprint terminology and interpretation. Forklift safety is also included.

CARPT 133 Residential Insulation and Weatherization 1.5 Units
Enrollment Limitation: Must be a registered Insulator Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 1.5 Units
Enrollment Limitation: Must be a registered Insulator Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 1.5 Units
Enrollment Limitation: Must be a registered Insulator Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 1.5 Units
Enrollment Limitation: Must be a registered Insulator Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 I 1 Unit
Enrollment Limitation: Must be a registered carpentry modular systems installer apprentice.
Hours: 18 hours LEC; 18 hours LAB
This course introduces the modular system 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.

CARPT 138 Modular System Construction II 1 Unit
Hours: 14 hours LEC; 22 hours LAB
This course introduces the modular system 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).
CARPT 140 Interior Systems 1.3 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 18 hours LEC; 16 hours LAB
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.

CARPT 141 Suspended Framing Ceiling Systems 1.5 Units
Enrollment Limitation: Must be a registered Acoustical Installer Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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, and proper tool selection and safety.

CARPT 142 Engineered Structural Systems 1 Unit
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 9 hours LEC; 27 hours LAB
This course covers heavy timber construction in dams, bridges, and trusses. Topics include lamination and the proper disposal and recycling of materials.

CARPT 144 Introduction to Grid Ceiling Installation 1.5 Units
Enrollment Limitation: Must be a registered Acoustical Installer Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the Acoustical Apprentice to the installation of grid ceilings. It also covers rolling scaffold and tool safety.

CARPT 145 Specialty Ceiling Systems 1.5 Units
Enrollment Limitation: Must be a registered Acoustical Installer Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the Acoustical Apprentice to the installation of special ceiling systems. It also covers aerial lift use and safety.

CARPT 146 Integrated Ceilings and Special Techniques 1.5 Units
Enrollment Limitation: Must be a registered Acoustical Installer Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the Acoustical Apprentice to the installation of integrated ceiling systems and situations which require special installation techniques. It also covers industry standards and manufacturers’ recommendations for proper installation of engineered ceiling and proper tool selection and safety.

CARPT 147 Advanced Grid Ceilings 1.5 Units
Enrollment Limitation: Must be a registered Acoustical Installer Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the acoustical apprentice to advanced techniques in suspended framing and grid ceiling systems. It also covers industry standards, manufacturers’ recommendations for proper installation of engineered ceilings, and proper tool selection and safety.

CARPT 148 Access Floor Systems 1.5 Units
Enrollment Limitation: Must be a registered Acoustical Installer Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course is an introduction to the installation of Access Floor Systems. It also covers hand tool ergonomics, safety, and maintenance.

CARPT 150 Concrete - Precast and Prestressed 1 Unit
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 9 hours LEC; 27 hours LAB
This course covers the use and placement of concrete in residential and commercial construction. Topics include mixing, testing, aggregate, curing, and construction designs, as well as precast and prestressed concrete, materials, forms, molds, handling, lifting devices, and the proper disposal and recycling of materials.

CARPT 151 Commercial Concrete 1.5 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 23 hours LEC; 12 hours LAB
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.

CARPT 160 Blueprint Reading-Residential 1.3 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 18 hours LEC; 16 hours LAB
This course covers residential blueprints. Topics include “green” practices, conventions, lines, symbols, measurements, and specifications used for residential construction.

CARPT 162 Blueprint Reading-Commercial 1.3 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 18 hours LEC; 16 hours LAB
This course covers commercial and industrial blueprints. Topics include conventions, lines, symbols, measurements, and specifications used for commercial and industrial construction. CalGreen codes are also covered.

CARPT 163 Modular System Blueprint Reading 1 Unit
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 13 hours LEC; 23 hours LAB
This course is an introduction to blueprint reading, project specifications, and layout for modular systems. It also covers union trust fund benefits.

CARPT 164 Acoustical Blueprint Reading 1.5 Units
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the acoustical apprentice to advanced specialized blueprint reading. It also covers basic construction documents, project scheduling, and labor cost estimation.

CARPT 170 Roof Framing 1 Unit
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 9 hours LEC; 27 hours LAB
This course covers roof framing, layout, and construction. Topics include industry terminology, technical information, and construction materials and methods, all which are used in planning and building several types of roofs. Industry standards and codes are also covered.

CARPT 180 Stair Building 1 Unit
Enrollment Limitation: Must be a registered Carpenter Apprentice.
Hours: 9 hours LEC; 27 hours LAB
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.
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<th>Course Code</th>
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<th>Enrollment Limitation</th>
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<td>CARPT 181</td>
<td>Tools of the Trade and Installation of Hardwood Floors</td>
<td>1.5</td>
<td>Must be a registered Carpenter Apprentice.</td>
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<td>CARPT 182 Finishing and Repairing Floors</td>
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<td>CARPT 183 Infection Control Risk Assessment and Hospital Code for Acoustical Installers</td>
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<td>Must be a registered Carpenter Apprentice.</td>
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<td>CARPT 184 Acoustical Specialty Systems</td>
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<td>Must be a registered Carpenter Apprentice.</td>
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<td>CARPT 185 Millwright Safety and Tool Skills</td>
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<td>Must be a registered Carpenter Apprentice.</td>
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<td>CARPT 186 The Millwright Apprentice and the Trade</td>
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<td>Must be a registered Carpenter Apprentice.</td>
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<td>CARPT 187 Blueprint Reading and Aerial Lift</td>
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<td>CARPT 188 Applying Safety, and the Trade</td>
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<td>Must be a registered Carpenter Apprentice.</td>
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<td>CARPT 189 Introduction to Welding and Cutting</td>
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<td>CARPT 190 The Acoustical Apprentice, Safety, and the Trade</td>
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<td>CARPT 191 The Acoustical Installer Safety</td>
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<td>CARPT 193 Precision Optical Instruments</td>
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<td>CARPT 194 Millwright Math Applications and Fall Protection</td>
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<td>CARPT 195 The Millwright Apprentice and the Trade</td>
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CARPT 228 Millwright Rigging 2 Units
Enrollment Limitation: Must be a registered Millwright Apprentice.
Hours: 35 hours LEC; 5 hours LAB
This course introduces the Millwright Apprentice to rigging. It addresses the safety regulations and practices related to rigging and rigging hardware.

CARPT 229 Cutting and Welding II 1.5 Units
Enrollment Limitation: Must be a registered Millwright apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 safe use of welding and cutting with plasma and carbon arc equipment, as well as the American Welding Society (AWS) requirements for welding 2G, 3G, and 4G, horizontal, vertical, and overhead groove joints with SMAW.

CARPT 230 Monorails 1.5 Units
Enrollment Limitation: Must be a registered Millwright Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces Millwright apprentices to various types of monorails, the materials, safety hazards, and the safe use of hand and power tools on job sites.

CARPT 231 Conveyors for Millwrights 1 Unit
Enrollment Limitation: Must be a registered Millwright Apprentice.
Hours: 16 hours LEC; 20 hours LAB
This course introduces the Millwright Apprentice to various types of conveyor systems including the major components and applications. It covers the methods and components used to install conveyor systems per industry standards.

CARPT 232 Machinery Installation 1.5 Units
Enrollment Limitation: Must be a registered Millwright Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the Millwright Apprentice to the proper installation of machinery per industry standards.

CARPT 233 Machinery Maintenance for Millwrights 1.5 Units
Enrollment Limitation: Must be a registered Millwright Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course covers the basics of millwright machinery maintenance, troubleshooting, and repair.

CARPT 234 Precision Tools for Millwrights 1.5 Units
Enrollment Limitation: Must be a registered Millwright Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces Millwright Apprentices to precision tools, accurate measurements for layout, leveling practices, and alignment per manufacturer and industry standards.

CARPT 235 Turbines 1.5 Units
Enrollment Limitation: Must be a registered Millwright Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 Cutting and Welding III 1.5 Units
Enrollment Limitation: Must be a registered Millwright Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 the safe use of welding and cutting with plasma and carbon arc equipment, as well as the American Welding Society (AWS) requirements for welding 3G and 4G, horizontal, vertical, and overhead groove joints with FCAW.

CARPT 240 Piledriver Safety and Tools 1.5 Units
Enrollment Limitation: Must be a registered Piledriver Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces Piledriver apprentices to the ergonomics, safety, and maintenance of hand and power tools. It also covers hazard recognition in fall protection.

CARPT 241 Pile Driver Math Applications 2 Units
Enrollment Limitation: Must be a registered Pile Driver Apprentice.
Hours: 36 hours LEC
This course covers mathematical processes in the construction trade with specific focus on the pile driving industry. It also covers personal financial responsibilities.

CARPT 242 Piledriver Rigging 2 Units
Enrollment Limitation: Must be a registered Piledriver Apprentice.
Hours: 35 hours LEC; 5 hours LAB
This course addresses the safety regulations and practices related to rigging and rigging hardware. It exceeds the requirements of OSHA Subpart CC, ANSI A10.42.2000 “Qualified Rigger,” and ANSI B30.

CARPT 243 Form Detailing, Construction, and Erection for Pile Drivers 1.5 Units
Enrollment Limitation: Must be a registered Pile Driver Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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.

CARPT 244 Welding I: Introduction to SMAW 1.5 Units
Enrollment Limitation: Must be a registered Pile Driver Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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.

CARPT 245 Introduction to Land and Water Pile Driving 1.5 Units
Enrollment Limitation: Must be a registered Pile Driver Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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.

CARPT 246 Welding II: SMAW Flat Position and Forklift Certification 1.5 Units
Enrollment Limitation: Must be a registered Piledriver Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 (2G). It also provides certification as a Power Industrial Truck Operator.
CARPT 247 Advanced Land and Water Pile Driving 1 Unit
Enrollment Limitation: Must be a registered Pile Driver Apprentice. Hours: 18 hours LEC; 18 hours LAB
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.

CARPT 248 Wharfage and Marine Structures 1 Unit
Enrollment Limitation: Must be a registered Pile Driver Apprentice. Hours: 18 hours LEC; 18 hours LAB
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.

CARPT 249 Welding III: Advanced SMAW 1.5 Units
Enrollment Limitation: Must be a registered Pile Driver Apprentice. Hours: 24 hours LEC; 12 hours LAB
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 & Layout Instruments 1.5 Units
Enrollment Limitation: Must be a registered Pile Driver Apprentice. Hours: 24 hours LEC; 12 hours LAB
This course introduces Piledriver apprentices to structural blueprint reading and layout.

CARPT 251 Advanced Structural Blueprints and Bridge Building 1.5 Units
Enrollment Limitation: Must be a registered Pile Driver Apprentice. Hours: 24 hours LEC; 12 hours LAB
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.

CARPT 252 Falsework, Shoring, and Heavy Timber Framing 1.5 Units
Enrollment Limitation: Must be a registered Pile Driver Apprentice. Hours: 24 hours LEC; 12 hours LAB
This course introduces Piledriver 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.

CARPT 253 Advanced Formwork 1.5 Units
Enrollment Limitation: Must be a registered Pile Driver Apprentice. Hours: 24 hours LEC; 12 hours LAB
This course introduces Piledriver apprentices to the construction of advanced concrete forms used in all types of installations.

CARPT 254 Welding IV: SMAW 4G Certification 1.5 Units
Enrollment Limitation: Must be a registered Piledriver Apprentice. Hours: 24 hours LEC; 12 hours LAB
This course expands 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. It covers the American Welding Society (AWS) requirements for 4G certification, overhead groove joints with SMAW.

CARPT 255 Welding V: FCAW 3G Certification 1.5 Units
Enrollment Limitation: Must be a registered Piledriver Apprentice. Hours: 24 hours LEC; 12 hours LAB
This course expands on CARPT 254 and furthers the Piledriver apprentice's knowledge of appropriate safety procedures when using flux core arc welding (FCAW) and oxy-fuel cutting and the associated components. It covers the American Welding Society (AWS) requirements for 3G certification, vertical groove joints with FCAW.

CARPT 256 Welding VI: FCAW 4G Certification 1.5 Units
Enrollment Limitation: Must be a registered Piledriver Apprentice. Hours: 24 hours LEC; 12 hours LAB
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 260 Introduction to Scaffolds and Confined Space 1.5 Units
Enrollment Limitation: Must be a registered Scaffold Erector Apprentice. Hours: 24 hours LEC; 12 hours LAB
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 1.5 Units
Enrollment Limitation: Must be a registered Scaffold Erector Apprentice. Hours: 24 hours LEC; 12 hours LAB
This course introduces the Scaffold Erector apprentice to the industry safety procedures when assembling welded frame and rolling scaffolds.

CARPT 262 System Scaffold 1.5 Units
Enrollment Limitation: Must be a registered Scaffold Erector Apprentice. Hours: 24 hours LEC; 12 hours LAB
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 1.5 Units
Enrollment Limitation: Must be a registered Scaffold Erector Apprentice. Hours: 26 hours LEC; 10 hours LAB
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 1 Unit
Enrollment Limitation: Must be a registered Scaffold Erector Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 1 Unit
Enrollment Limitation: Must be a registered Scaffold Erector Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 1.5 Units
Enrollment Limitation: Must be a registered Scaffold Erector Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the Scaffold Erector Apprentice to scaffold blueprint reading.

CARPT 268 Welding II 1.5 Units
Enrollment Limitation: Must be a registered Scaffold Erector Apprentice.
Hours: 24 hours LEC; 12 hours LAB
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 Mill Cabinet Safety and Tool Skills 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces Mill Cabinet Apprentices to materials, safety hazards, and the safe use of hand and power tools on job sites.

CARPT 271 The Mill Cabinet Apprentice and the Trade 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course covers the history of Mill Cabinet Apprentice and the trade. Topics include wages and benefits, workers’ compensation, personal finances, job placement, collective bargaining, working conditions, and labor-management relations as they pertain to unions, contractors, and cooperatives.

CARPT 272 Math for the Trades 2 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 36 hours LEC
This course covers mathematics applications in the mill cabinet trade with specific focus on mathematical processes related to the production requirements of the industry.

CARPT 273 Basic Cabinet Making 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces Mill Cabinet Apprentices to basic cabinetry building procedures per industry standards.

CARPT 274 Basic Blueprint Reading Mill Cabinet 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces Mill Cabinet Apprentices to blueprint terminology and interpretation.

CARPT 275 Machinery Maintenance for Mill Cabinet 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course covers the basics of mill cabinet machinery maintenance, troubleshooting, and repair.

CARPT 276 Cabinet Hardware Installation 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces new Mill Cabinet Apprentices to basic cabinetry hardware installation procedures.

CARPT 277 Sanding, Stains, and Finish Preparation 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the Mill Cabinet Apprentice to the processes of surface preparation for the staining and finishing of solid wood and veneered cabinetry.

CARPT 278 Advanced Machinery Operation 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces new Mill Cabinet Apprentices to advanced machinery operation procedures.

CARPT 279 Advanced Blueprint Reading for Mill Cabinet 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces Mill Cabinet Apprentices to advanced blueprint terminology and interpretation.

CARPT 280 Advanced Cabinet Making 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces Mill Cabinet Apprentices to advanced cabinetry building procedures.

CARPT 281 Veneers, Laminate, and Finishing 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the Mill Cabinet Apprentice to the processes of surface preparation for the finishing of laminate, and veneered cabinetry.

CARPT 282 CAD Basics for Mill Cabinetry 1.5 Units
Enrollment Limitation: Must be a registered Mill Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the Mill Cabinet Apprentice to computer-aided design and drafting using AutoCAD, Cabinet Vision, and Alphacam software systems.

CARPT 283 Introduction to CNC 1.5 Units
Enrollment Limitation: Must be a registered CNC Cabinet Apprentice.
Hours: 24 hours LEC; 12 hours LAB
This course introduces the Mill Cabinet Apprentice to the operation processes, maintenance, and tooling of Computer Numeric Controlled (CNC) machines.
**CARPT 284** Solid Surface Material, Fabrication, and Installation 1.5 Units  
**Enrollment Limitation:** Must be a registered Mill Cabinet Apprentice.  
**Hours:** 24 hours LEC; 12 hours LAB  
This course introduces the Mill Cabinet Apprentice to constructing cabinetry building procedures per industry standards.

**CARPT 285** Advanced Project for Mill Cabinet 1.5 Units  
**Enrollment Limitation:** Must be a registered Mill Cabinet Apprentice.  
**Hours:** 24 hours LEC; 12 hours LAB  
This course introduces the Mill Cabinet Apprentice to advanced cabinetry building procedures per industry standards.

**CARPT 298** Work Experience in Carpenters Apprenticeship 1-4 Units  
**Enrollment Limitation:** Indentured in the carpenters apprenticeship program.  
**Hours:** 60-300 hours LAB  
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. 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/Lathing Apprenticeship

**DRLTH 100** Introduction to the Trade 2 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 36 hours LEC  
This course is an introduction to drywall/lathing apprenticeship, state and federal apprenticeship laws, apprenticeship record keeping, apprentice evaluation procedures, general safety, work ethic, sexual harassment issues, and basic tools of the trade.

**DRLTH 102** Basic Applications 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course is an introduction to basic gypsum wall covering and ceiling applications. It also includes taping installations, knot recognition, and application to rigging on construction job sites.

**DRLTH 103** Drywall Lathing Trade Safety 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 24 hours LEC; 12 hours LAB  
This course covers trade safety for drywall lathing apprentices including hospital safety, rough terrain lift truck operation, and first aid and CPR.

**DRLTH 105** Mathematics for Drywall/Lathers 2 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 36 hours LEC  
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 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 18 hours LEC; 27 hours LAB  
This course covers basic residential metal framing. It includes framing of floors, walls, doors, windows, roofs, trusses, and stairs.

**DRLTH 112** Doors, Windows, Exterior Systems/Building Documents 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course covers the hardware, installation, and framing of doors and windows and exterior wall covering systems. It also covers blueprints and building codes.

**DRLTH 120** Blueprint Reading I 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course covers job specifications, blueprint structure, and basic blueprint reading and interpretation. It also covers construction drawings and sketching.

**DRLTH 121** Blueprint Reading II 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course is a continuation of DRLTH 120. Topics include interpretation, problem solving, correlating specifications, prints, addenda, notes, sections, and mathematics used with blueprints.

**DRLTH 122** Blueprint Reading III 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course is a continuation of DRLTH 121. Topics include take-offs, material estimates, material requisition, job costs, and layout from blueprints.

**DRLTH 130** Welding I 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course covers welding and welding concepts for construction job sites. Topics include welding safety, basic welding terms, definitions, positions, and cutting operations.

**DRLTH 131** Welding II 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course is a continuation of DRLTH 130. Topics include safety, concepts, processes, symbols, and certification performance of welding.

**DRLTH 140** Exterior/Advanced Fire Control System and Partitions 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course covers safety, principles, theory, and application of advanced fire control systems. Topics include principles and applications of partitions and metal framing.

**DRLTH 142** Exterior Systems and Trims 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course covers safety, principles, and application of exterior wall framing, coverings, and trims.

**DRLTH 150** Interior Metal Lathing System, Sound Control 1.5 Units  
**Enrollment Limitation:** Registered Drywall/Lathing Apprentice  
**Hours:** 21 hours LEC; 18 hours LAB  
This course covers materials, principles, theory, and application of lath and plaster interior hollow walls and partitions. Topics include principles and application of sound control systems, an introduction to mathematics, and layout for building arches.
DRLTH 160  Ceilings, Shaft Protection and Demountable Partitions  1.5 Units  
Enrollment Limitation: Registered Drywall/Lathing Apprentice  
Hours: 21 hours LEC; 18 hours LAB  
This course covers safety, materials, principles, theory, and installation of ceiling systems, demountable partitions, and shaft systems.

DRLTH 162  Arches, Furring and Advanced Systems  1.5 Units  
Enrollment Limitation: Registered Drywall/Lathing Apprentice  
Hours: 21 hours LEC; 18 hours LAB  
This course covers safety, materials, principles, theory, and installation of furring, arch systems, and fire retardant materials.

DRLTH 170  Advanced Construction Techniques  1.5 Units  
Enrollment Limitation: Registered Drywall/Lathing Apprentice  
Hours: 21 hours LEC; 18 hours LAB  
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.

DRLTH 298  Work Experience Drywall/Lathing Apprenticeship  1-4 Units  
Enrollment Limitation: Indentured in the drywall/lathing apprenticeship program.  
Hours: 60-300 hours LAB  
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 (J.A.T.C.). Students complete work experience hours at approved training sites. 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.

**Electrical Apprenticeship**

ELECT 110  Electrical Apprenticeship I  5 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 54 hours LEC; 108 hours LAB  
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  3 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 36 hours LEC; 70 hours LAB  
This course covers 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  3 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 36 hours LEC; 70 hours LAB  
This course covers 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  3 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 36 hours LEC; 70 hours LAB  
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  3 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 36 hours LEC; 70 hours LAB  
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  3.3 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 36 hours LEC; 70 hours LAB  
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 of over-current protection, transformers and ground fault protection.

ELECT 140  Electrical Apprenticeship VII  3.3 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 36 hours LEC; 70 hours LAB  
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  3 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 36 hours LEC; 70 hours LAB  
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 occupations.

ELECT 150  Electrical Apprenticeship IX  3 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 36 hours LEC; 70 hours LAB  
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  3 Units  
Enrollment Limitation: Registered Electrical Apprentice  
Hours: 36 hours LEC; 70 hours LAB  
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 control circuits.
ELECT 281 Green Technology
High Efficiency Lighting 2 Units
Enrollment Limitation: Must be a current California State Certified General Electrician.
Hours: 27 hours LEC; 27 hours LAB
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 1-4 Units
Enrollment Limitation: Indentured in the electricians apprenticeship program.
General Education: AA/AS Area III(b)
Hours: 60-300 hours LAB
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 (J.A.T.C.). Students complete work experience hours at approved training sites. 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.

Electrical Residential Apprenticeship
Electrician Trainee

ELTRN 110 Electrician Trainee I 4 Units
Advisory: MATH 100, 104, or 132 with a grade of “C” or better
Hours: 63 hours LEC; 27 hours LAB
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 4 Units
Prerequisite: ELTRN 110 with a grade of “C” or better
Hours: 63 hours LEC; 27 hours LAB
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 4 Units
Prerequisite: ELTRN 110 and 111 with grades of “C” or better
Hours: 63 hours LEC; 27 hours LAB
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 4 Units
Prerequisite: ELTRN 110 and 111 with grades of “C” or better
Hours: 63 hours LEC; 27 hours LAB
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 job site personnel development and job site management. This course was formerly known as ELECT 221.

ELTRN 130 Electrician Trainee V 4 Units
Prerequisite: ELTRN 110 and 111 with grades of “C” or better
Hours: 63 hours LEC; 27 hours LAB
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 4 Units
Prerequisite: ELTRN 110 and 111 with grades of “C” or better
Hours: 63 hours LEC; 27 hours LAB
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 4.5 Units
Advisory: Completion of ELTRN 110 and 111.
Hours: 81 hours LEC
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.

Ironworker Apprenticeship

IW 100 Orientation and History of the Trade 1.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
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 1.5 Units
Enrollment Limitation: Must be a state registered ironworker apprentice.
Hours: 25 hours LEC; 15 hours LAB
This course provides the ironworker apprentice 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  1.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
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  1.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
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  1.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
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. Post-tensioning and pre-stressing techniques are also introduced.

IW 131  Reinforcing II/Post Tensioning  1.5 Units
Prerequisite: IW 130 with a grade of “C” or better
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
This course expands the interpretation of standard codes, code classifications, plans, schedules, charts, and specifications commonly used in the Ironworker trade. Construction techniques, use of bar supports, placement of reinforcing iron, general principles of bar splicing and welding, and welding are presented in depth.

IW 140  Precast Concrete and Metal Buildings  1.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
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  1.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
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  1.5 Units
Prerequisite: IW 150 with a grade of “C” or better
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
This course continues the study of ferrous metals and their reactions to heat. Equipment and materials employed in the use of shielded metal-arc and gas shielded-arc are included in this course.

IW 152  Welding III  1.5 Units
Prerequisite: IW 151 with a grade of “C” or better
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
This course focuses on skill development in shielded metal arc and flux core arc welding on ferrous and non-ferrous metals. Vertical and overhead positions on all types of joints as they relate to structural stability are also covered.

IW 160  Lead Hazard  1.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
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  1.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
This course covers the theory and practice of blueprint reading, structural erection procedures, and proper steel structure construction.

IW 171  Structural II  1.5 Units
Prerequisite: IW 170 with a grade of “C” or better
Hours: 18 hours LEC; 27 hours LAB
This course addresses the theory and practice of blueprint reading related to structure construction. Structural erection procedures including the operation of mobile and tower cranes and proper construction of various steel structures are presented.

IW 180  Architectural/Ornamental I  1.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
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, constructing curtain wall systems, applying sealants, and glazing systems are covered.

IW 183  The History of Ironworkers  2.5 Units
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 45 hours LEC
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  1.5 Units
Prerequisite: IW 180 with a grade of “C” or better
Enrollment Limitation: Registered Ironworkers Apprentice
Hours: 18 hours LEC; 27 hours LAB
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  1-4 Units
Enrollment Limitation: Indentured in the ironworkers apprenticeship program.
General Education: AA/AS Area III(b)
Hours: 60-300 hours LAB
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 (J.A.T.C.). Students complete work experience hours at approved training sites. 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.
OE3 101 Introduction to Operators 8 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 120 hours LEC; 72 hours LAB
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, dozer, scraper, and backhoe.

OE3 102 Introduction to Heavy Duty Repair 8 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 120 hours LEC; 72 hours LAB
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 12 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 164 hours LEC; 156 hours LAB
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 8 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 120 hours LEC; 72 hours LAB
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 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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 3 Units
Prerequisite: OE3 112 with a grade of “C” or better
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice
Hours: 41 hours LEC; 39 hours LAB
This course covers welding and oxyacetylene used in batch, crushing, screening, and washing application plants. Topics include shop safety practices, proper selection of welding equipment, use of oxyacetylene equipment, and proper welding techniques.

OE3 130 Backhoe & Excavator Operations 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice
Hours: 41 hours LEC; 39 hours LAB
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 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice
Hours: 41 hours LEC; 39 hours LAB
This course covers grade checking for the construction equipment operator. Topics include grade setting terminology, stake marking, laser levels, street section grading, Global Positioning System (GPS) devices, plan reading, metric conversions, and locating underground infrastructure.

OE3 132 Scrapers 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice
Hours: 41 hours LEC; 39 hours LAB
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 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice
Hours: 41 hours LEC; 39 hours LAB
This course covers the safe operation of a loader. Topics include equipment safety, loading, transporting, stockpiling, and hand signals.

OE3 134 Motor Grader 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice
Hours: 41 hours LEC; 39 hours LAB
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 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice
Hours: 41 hours LEC; 39 hours LAB
This course covers the operation of dozers. Topics include equipment safety, grading, dumping and spreading, grade checking, and operation with a scraper.

OE3 136 Directional Drilling 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice
Hours: 41 hours LEC; 39 hours LAB
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 3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice
Hours: 41 hours LEC; 39 hours LAB
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  3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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  3 Units
Prerequisite: OE3 140 with a grade of “C” or better
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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  3 Units
Prerequisite: OE3 141 with a grade of “C” or better
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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 160  Grade Setting I  3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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  3 Units
Prerequisite: OE3 160 with a grade of “C” or better
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
This course covers the advanced skills and knowledge required to be a grade setter in the Operating Engineer Apprenticeship. Topics include slope setting using global positioning systems (GPS) for Trimble systems.

OE3 182  Heavy Duty Equipment Hydraulics  3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
This course covers hydraulic systems of heavy duty equipment. Topics include pumps, actuators, hoses, schematic drawings, and similar systems.

OE3 183  Engines  3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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  3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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  3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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  3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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  3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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  3 Units
Enrollment Limitation: Registered Operating Engineer Apprentice.
Hours: 41 hours LEC; 39 hours LAB
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  1-4 Units
Enrollment Limitation: Indentured in the operating engineers apprenticeship program.
General Education: AA/AS Area III(b)
Hours: 60-300 hours LAB
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 (J.A.T.C.). Students complete work experience hours at approved training sites. 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.

Plumbers and Pipefitters Apprenticeship

PLUMB 100  Introduction to the Trade  4.5 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 69 hours LEC; 39 hours LAB
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  4.5 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 69 hours LEC; 39 hours LAB
This course introduces the Plumber and Pipefitter 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  4 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 62 hours LEC; 46 hours LAB
This course introduces the Plumber and Pipefitter Apprentice to plumbing science and mechanics. It also covers various plumbing fixtures and rigging operations.

PLUMB 120  Gas Welding and Brazing  2 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 6 hours LEC; 102 hours LAB
This course introduces the Plumber and Pipefitter Apprentice to welding techniques and principles of arc and oxy-fuel welding and basic working drawings.

PLUMB 121  Basic Arc Welding and Drawings  4 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 60 hours LEC; 48 hours LAB
This course introduces the Plumber and Pipefitter Apprentice to welding techniques and principles of arc and oxy-fuel welding.

PLUMB 122  Advanced Arc Welding  2 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 8 hours LEC; 100 hours LAB
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  4.5 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 72 hours LEC; 36 hours LAB
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 140  Advanced Drawings and Drainage  4 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 63 hours LEC; 45 hours LAB
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 150  Steamfitting and Pipefitting  6 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 108 hours LEC
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  5.5 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 98 hours LEC; 10 hours LAB
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  4 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 65 hours LEC; 43 hours LAB
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  6 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 108 hours LEC
This course introduces the Plumber and Pipefitter Apprentice to basic refrigeration, EPA certification, safety, and customer service.

PLUMB 170  Job Supervision and Foreman Training  4 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 58 hours LEC; 50 hours LAB
This course introduces the Plumber and Pipefitter Apprentice to the knowledge and skills necessary to properly supervise, schedule, and document a construction project.

PLUMB 180  Supermarket Refrigeration  4 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 60 hours LEC; 48 hours LAB
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  3.5 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 42 hours LEC; 66 hours LAB
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  4.5 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 70 hours LEC; 38 hours LAB
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 4.5 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 73 hours LEC; 147 hours LAB
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 4 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice
Hours: 58 hours LEC; 50 hours LAB
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 4 Units
Enrollment Limitation: Must be a registered Plumber and Pipefitter Apprentice.
Hours: 65 hours LEC; 43 hours LAB
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 298  Work Experience in Plumbers and Pipefitters Apprentice 1-4 Units
Enrollment Limitation: Indentured in the Plumbers and Pipefitters Apprentice Program.
General Education: AA/AS Area III(b)
Hours: 60-300 hours LAB
This course provides students the opportunity to work in the plumbers and pipefitters apprentice program for the purpose of developing specific skills to meet the goals and objectives of the Plumbers and Pipefitters Joint Apprenticeship and Training Committee (J.A.T.C.). Students complete work experience hours at approved training sites. 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.

Pre-Apprenticeship

PREAP 111  Infrastructure Pre-Apprenticeship 7 Units
Corequisite: Concurrent enrollment in FITNS 102.
Advisory: Eligible for ENGRD 310 or ENGRD 312 and ENGRD 313 OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must have a high school diploma or GED.
Hours: 77 hours LEC; 147 hours LAB
This course provides an introduction to infrastructure construction trades apprenticeships. It covers tools, and equipment used for cleaning 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 112  Infrastructure Pre-Apprenticeship I 3 Units
 Hours: 27 hours LEC; 81 hours LAB
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 3 Units
 Hours: 27 hours LEC; 81 hours LAB
This course provides an introduction to infrastructure construction trades apprenticeships. It covers tools, and equipment used for cleaning 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 122  Pre-Apprenticeship for Utility Workers 8 Units
Corequisite: FITNS 100
Advisory: MATH 145
Hours: 96 hours LEC; 144 hours LAB
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 141  Green Technology Pre-Apprenticeship 7 Units
Corequisite: Concurrent enrollment in FITNS 101.
Advisory: Eligible for ENGRD 310 or ENGRD 312 and ENGRD 313 OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must have a high school diploma or GED.
Hours: 77 hours LEC; 147 hours LAB
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. Field trips may be required.

PREAP 142  Green Technology Pre-Apprenticeship I 3 Units
Hours: 27 hours LEC; 81 hours LAB
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.
**oine Technology Pre-apprenticeship II** 3 Units

*Hours: 27 hours LEC; 81 hours LAB*

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.

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**Sheet Metal Apprenticeship**

**SHME 100 Sheet Metal Apprenticeship I** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

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** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

This course introduces basic layout skills for advanced pattern development. In addition topics include the basic bidding process, trigonometry for the sheet metal industry, fabrication of round fittings, and drafting of pictorial drawings.

**SHME 110 Sheet Metal Apprenticeship III** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

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 111 Sheet Metal Apprenticeship IV** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

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** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

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** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

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** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

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** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

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 a HVAC system with cost, quantity and weight.

**SHME 140 Sheet Metal Apprenticeship IX** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

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** 3.3 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 40 hours LEC; 58 hours LAB*

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** 2.5 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB*

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** 2.5 Units

*Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB*

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** 1-4 Units

*Enrollment Limitation: Indentured in the sheet metal apprenticeship program.

*Hours: 60-300 hours LAB*

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 (J.A.T.C.). Students complete work experience hours at approved training sites. 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.
Sheet Metal Residential Apprenticeship

SMRA 100 Sheet Metal Residential Apprenticeship I 3 Units
Enrollment Limitation: Registered Sheet Metal Residential Apprentice Hours: 40 hours LEC; 42 hours LAB
This course is an introduction to sheet metal residential apprenticeship, residential and light commercial work, safety, tools, and materials. Topics include an introduction to basic sheet metal layout and fabrication.

SMRA 101 Sheet Metal Residential Apprenticeship II 3 Units
Enrollment Limitation: Registered Sheet Metal Residential Apprentice Hours: 40 hours LEC; 42 hours LAB
This course covers trade-related mathematics, forklift training, sheet metal soldering, and basic reading of blueprints. Topics include basic layout of sheet metal elbows, offsets and triangulation.

SMRA 110 Sheet Metal Residential Apprenticeship III 3 Units
Enrollment Limitation: Registered Sheet Metal Residential Apprentice Hours: 40 hours LEC; 42 hours LAB
This course covers servicing, troubleshooting and low voltage controls for residential heating and air conditioning (HVAC) equipment. Topics include residential architectural sheet metal and fabricating flashing, gutters and downspouts.

SMRA 111 Sheet Metal Residential Apprenticeship IV 3 Units
Enrollment Limitation: Registered Sheet Metal Residential Apprentice Hours: 40 hours LEC; 42 hours LAB
This course covers advanced triangulation, draft and fabrication methods in residential heating, ventilation and air conditioning (HVAC) systems. Topics include servicing furnaces, air conditioners, and alternating-current (AC) control circuits. Additional topics include duct design and system sizing.

Sheet Metal Technician Apprenticeship

SMTEC 100 Sheet Metal Service Technician Apprenticeship I 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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 130 Sheet Metal Service Technician Apprenticeship VII 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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 131 Sheet Metal Service Technician Apprenticeship VIII 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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 2.5 Units
Enrollment Limitation: Registered Sheet Metal Apprentice Hours: 27 hours LEC; 54 hours LAB
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.
## DEGREES AND CERTIFICATES

### Art Degree

**Major Code: 011027A01**

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.

### 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 Opportunities

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.

### Requirements for Degree

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 300</td>
<td>Drawing and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ART 370</td>
<td>Three Dimensional Design</td>
<td>3</td>
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<tr>
<td>ART 442</td>
<td>Introduction to Art Gallery Operations (2)</td>
<td>2 - 3</td>
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<tr>
<td>or ART 444</td>
<td>Art Gallery and Portfolio Preparation (3)</td>
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<tr>
<td>ARTH 302</td>
<td>Art: Stone Age Through the Middle Ages</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 308</td>
<td>Renaissance Tradition in Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ARTH 310</td>
<td>Modern Art (3)</td>
<td></td>
</tr>
</tbody>
</table>

A.A. - Art

A.A. for Transfer - Art History

A.A. for Transfer - Studio Art

Certificate: Freelance Photography

Gallery Management

Department Certificate: Sculpture

And a minimum of 15 units from the following: ....................................................... 15

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ART 302</td>
<td>Drawing and Composition II</td>
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<tr>
<td>ART 304</td>
<td>Figure Drawing I</td>
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<tr>
<td>ART 305</td>
<td>Figure Drawing II</td>
<td>3</td>
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<tr>
<td>ART 306</td>
<td>Facial Expression and Anatomy</td>
<td>3</td>
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<tr>
<td>ART 312</td>
<td>Portrait Drawing</td>
<td>3</td>
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<tr>
<td>ART 314</td>
<td>Introduction to Illustration</td>
<td>3</td>
</tr>
<tr>
<td>ART 323</td>
<td>Design: Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>ART 324</td>
<td>Collage and Assemblage</td>
<td>3</td>
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<tr>
<td>ART 327</td>
<td>Painting I</td>
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<td>ART 328</td>
<td>Painting II</td>
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<td>ART 329</td>
<td>Painting III</td>
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<td>ART 336</td>
<td>Watercolor Painting</td>
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<td>ART 337</td>
<td>Intermediate Watercolor Painting</td>
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<td>ART 361</td>
<td>Printmaking: Survey</td>
<td>3</td>
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<tr>
<td>ART 371</td>
<td>Foundry Casting for Sculpture</td>
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<td>ART 372</td>
<td>Sculpture</td>
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<td>ART 373</td>
<td>Intermediate Sculpture</td>
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<td>ART 375</td>
<td>Figure Sculpture</td>
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<tr>
<td>ART 376</td>
<td>Functional Sculpture</td>
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<tr>
<td>ART 390</td>
<td>Ceramics</td>
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<td>ART 391</td>
<td>Intermediate Ceramics</td>
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<tr>
<td>ART 397</td>
<td>Alternative Firing Processes in Ceramics</td>
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<td>ART 398</td>
<td>Ceramic Murals and Tiles</td>
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<td>ART 420</td>
<td>Film Making</td>
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<td>ART 430</td>
<td>Art and Children</td>
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<tr>
<td>ART 440</td>
<td>Artists’ Materials and Techniques</td>
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<tr>
<td>ARTH 300</td>
<td>Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 322</td>
<td>Art History of the Non-Western World</td>
<td>3</td>
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<tr>
<td>ARTH 333</td>
<td>Introduction to Islamic Art</td>
<td>3</td>
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<tr>
<td>ARTH 334</td>
<td>International Contemporary Art</td>
<td>3</td>
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<tr>
<td>ARTPH 300</td>
<td>Basic Art Photography</td>
<td>3</td>
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<tr>
<td>ARTPH 305</td>
<td>Digital Photography</td>
<td>3</td>
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<tr>
<td>ARTPH 310</td>
<td>Intermediate Photography</td>
<td>3</td>
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<tr>
<td>ARTPH 322</td>
<td>Color Photography</td>
<td>3</td>
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<td>ARTPH 340</td>
<td>Alternative Process Photography</td>
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<td>ARTPH 350</td>
<td>Documentary Photography</td>
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<td>ARTPH 360</td>
<td>Studio Lighting</td>
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<td>ARTPH 370</td>
<td>Fashion, Wedding, and Portrait Photography</td>
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<tr>
<td>ARTPH 376</td>
<td>Photography Lab: Portfolio Development</td>
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</tbody>
</table>

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

### Art History A.A. for Transfer Degree

**Major Code, CSU GE: 011021A01**

**Major Code, IGETC: 011021A02**

The Associate in Arts in Art History for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of Art History. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.
The Associate in Arts degree in Art History for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Arts degree in Art History for Transfer (A.A.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

**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 Opportunities**

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.

**Requirements for Degree**

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<td>And a minimum of 3 units from the following:</td>
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<td>ART 327</td>
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<td>ARTNM 303</td>
<td>Graphic Design: Typography</td>
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<td>ARTNM 305</td>
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<tr>
<td>ARTPH 300</td>
<td>Basic Art Photography</td>
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<tr>
<td>ARTPH 305</td>
<td>Digital Photography</td>
<td></td>
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</tbody>
</table>

1Excluding any courses used to fulfill the degree requirements listed above.

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

**Studio Art A.A. for Transfer Degree**

**Major Code, CSU GE: 011018A01**

**Major Code, IGETC: 011018A02**

Completion of this degree provides a foundation in studio art methods. Program offerings include course work in art history, 2-D, and 3-D studio practices.

The Associate in Arts in Studio Art for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

The Associate in Arts in Studio Art for Transfer (A.A.-T) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth 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.
- compose or design works of art that utilize a combination of technique, materials, visual ideas, and experiences.
- construct and document an initial portfolio of works 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.

(continued on next page)
(Studio Art A.A. for Transfer continued)

**Career Opportunities**

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.

**Requirements for Degree**  
**27 Units**

<table>
<thead>
<tr>
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<th>Course Description</th>
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<td>ART 300</td>
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<td>Design: Fundamentals</td>
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<td>ART 370</td>
<td>Three Dimensional Design</td>
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<tr>
<td>ARTH 308</td>
<td>Renaissance Tradition in Art</td>
<td>3</td>
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<tr>
<td>ARTH 310</td>
<td>Modern Art</td>
<td>3</td>
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<tr>
<td>ARTH 302</td>
<td>Art: Stone Age Through the Middle Ages (3)</td>
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</tr>
<tr>
<td>or ARTH 322</td>
<td>Art History of the Non-Western World (3)</td>
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</tbody>
</table>

A minimum of 9 units from the following:  
Select three courses, each from a different category below.

**Drawing:**
- ART 302  
  Drawing and Composition II (3)
- ART 304  
  Figure Drawing I (3)
- ART 305  
  Figure Drawing II (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 Art Photography (3)
- ARTPH 305  
  Digital Photography (3)

**Associate in Arts for Transfer Degree Requirements:**

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

**Freelance Photography Certificate**  
**Major Code: 011028C01**

This certificate provides a foundation of knowledge and experience in the everyday working practices of art museums and galleries.

**Student Learning Outcomes**

Upon completion of the 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 Opportunities**

Job opportunities include, but are not limited to, studio assistant, studio photographer, freelance photographer, editorial photographer, stock photographer, and photo lab manager.

See losrios.edu/gainful-emp-info/gedt.php?major=011026C01 for Gainful Employment Disclosure.

**Requirements for Certificate**  
**30.5 - 33.5 Units**

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<td>ART 320</td>
<td>Design: Fundamentals</td>
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<td>or ARTPH 340</td>
<td>Alternative Process Photography</td>
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<tr>
<td>ART 300</td>
<td>Introduction to Art (3)</td>
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<tr>
<td>or ARTH 335</td>
<td>Survey of Photography (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ARTH 345</td>
<td>Survey of Photography (5)</td>
<td>3</td>
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<tr>
<td>ARTPH 300</td>
<td>Basic Art Photography (3)</td>
<td>3</td>
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<tr>
<td>ARTPH 305</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 310</td>
<td>Intermediate Photography</td>
<td>3</td>
</tr>
<tr>
<td>ARTPH 315</td>
<td>Trends in Software and Social Media for Photographers</td>
<td>3</td>
</tr>
<tr>
<td>ARTPH 322</td>
<td>Color Photography</td>
<td>3</td>
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<tr>
<td>ARTPH 350</td>
<td>Documentary Photography</td>
<td>3</td>
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<tr>
<td>or ARTPH 370</td>
<td>Fashion, Wedding, and Portrait Photography</td>
<td>3</td>
</tr>
<tr>
<td>ARTPH 360</td>
<td>Studio Lighting</td>
<td>3</td>
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<tr>
<td>ARTPH 375</td>
<td>Freelance Photography Careers</td>
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<tr>
<td>ARTPH 376</td>
<td>Photography Lab: Portfolio Development (1)</td>
<td>1 - 4</td>
</tr>
<tr>
<td>or ARTPH 498</td>
<td>Work Experience in Art Photography (1–4)</td>
<td></td>
</tr>
</tbody>
</table>

**Gallery Management Certificate**  
**Major Code: 011028C01**

This certificate provides a foundation of knowledge and experience in the everyday working practices of art museums and galleries.

**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
DEPARTMENT CERTIFICATE

Sculpture Certificate

This certificate provides training for beginning careers in metal fabrication and sculpture. Topics include the basic skills necessary for entry-level fabrication positions or small studio businesses in sculpture.

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 a gas forge, the anvil, and other related metal working equipment.
• demonstrate blacksmith techniques such as punching, twisting, drawing out, and upsetting.
• utilize tools and technology such as forms, molds, crucible, melting furnace, and metal pouring equipment.
• describe the proper technique for applying patinas.
• evaluate blue print drawings as they relate to foundry casting.
• define the properties of sculptural form and space.
• demonstrate creative abilities.
• generate sculpture(s) based on a variety of source material.
• cite traditional and non-traditional metal 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.

Requirements for Certificate 19 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 442</td>
<td>Introduction to Art Gallery Operations</td>
<td>2</td>
</tr>
<tr>
<td>ART 443</td>
<td>Art Gallery Operations</td>
<td>3</td>
</tr>
<tr>
<td>ART 445</td>
<td>Art Gallery Operations</td>
<td>3</td>
</tr>
<tr>
<td>ART 300</td>
<td>Introduction to Art (3)</td>
<td>3</td>
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<tr>
<td>or ARTH 310</td>
<td>Modern Art (3)</td>
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<tr>
<td>or ARTH 334</td>
<td>International Contemporary Art (3)</td>
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<tr>
<td>BUS 224</td>
<td>Customer Service</td>
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<tr>
<td>ART 498</td>
<td>Work Experience in Art (1 - 4)</td>
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</tbody>
</table>

A minimum of 1 unit from the following:

<table>
<thead>
<tr>
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<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 498</td>
<td>Work Experience in Art (1 - 4)</td>
<td>1</td>
</tr>
<tr>
<td>ART 300</td>
<td>Drawing and Composition I (3)</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 322</td>
<td>Beginning Digital Art (3)</td>
<td></td>
</tr>
<tr>
<td>ARTPH 305</td>
<td>Digital Photography (3)</td>
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</table>

A minimum of 6 units from the following:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 370</td>
<td>Three Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 372</td>
<td>Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>ART 375</td>
<td>Figure Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>ART 373</td>
<td>Intermediate Sculpture (3)</td>
<td>3</td>
</tr>
<tr>
<td>ART 376</td>
<td>Functional Sculpture (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

1 or any other studio course from the ART, ARTNM, or ARTPH designators.

Art

ART 101  Lightroom and Photoshop Basics .5 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
Hours: 27 hours LAB

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 3 Units
Course Family: Drawing Fundamentals
(see page 38 - limitation on active participatory courses)
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB

This course introduces observational drawing and composition. Development of the ability to perceive and define shape, contour, volume, space, and value using a variety of drawing media and subject matter is emphasized. It focuses on the clarity of observational skills and the ability to translate three-dimensional form and space into two-dimensional drawings. Field trips may be required. (C-ID ARTS 110)

ART 302  Drawing and Composition II 3 Units
Course Family: Drawing Fundamentals
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 300 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB

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. Field trips may be required. (C-ID ARTS 205)

ART 304  Figure Drawing I 3 Units
Course Family: Figure Studies
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 300 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB

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. (C-ID ARTS 200)
ART 305  Figure Drawing II  3 Units
Course Family: Figure Studies
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 304 with a grade of “C” or better
Advisory: ART 312
Course Transferable to UCC/CSU
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
Same As: ARTNM 320
Prerequisite: ART 300 with a grade of “C” or better
Advisory: ART 304
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers human facial expression and anatomy using live
models, anatomical references, and imagination. 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  3 Units
Prerequisite: ART 300 with a grade of “C” or better
Advisory: ART 304
General Education: AA/AS Area I
Course Transferable to UCC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 use of color media, and
the development of personal style. Field trips may be required.

ART 314  Introduction to Illustration  3 Units
Course Family: Applied Drawing
(see page 38 - limitation on active participatory courses)
Same As: ARTNM 370
Prerequisite: ART 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 ARTNM 370.

ART 317  Character Design  3 Units
Course Family: Applied Drawing
(see page 38 - limitation on active participatory courses)
Same As: ARTNM 372
Prerequisite: ART 302 with a grade of “C” or better
Advisory: ART 304 and ARTNM 302
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces the visual development of characters based
on archetypal patterns. Students will consider 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  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UCC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 (C-ID ARTS 100).

ART 323  Design: Color Theory  3 Units
Prerequisite: ART 320 with a grade of “C” or better
Course Transferable to UCC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course studies the principles, theories, and application of
additive and subtractive color in two dimensions. Included is 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. (C-ID ARTS 270)

ART 324  Collage and Assemblage  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UCC/CSU
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
Course Family: Painting
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 300 or 320 with a grade of “C” or better
Course Transferable to UCC/CSU
Hours: 36 hours LEC; 54 hours LAB
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. (C-ID ARTS 210)

ART 328  Painting II  3 Units
Course Family: Painting
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 327 with a grade of “C” or better
Course Transferable to UCC/CSU
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
Course Family: Painting
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 327 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course further develops the skills and concepts introduced in ART 327. Included is the survey of historical and contemporary styles in painting as it 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  3 Units
Prerequisite: ART 300 or 320 with a grade of "C" or better
Advisory: ART 327 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
Course Family: Painting
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 300 or 320 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces painting with aqueous media and techniques, including watercolor, gouache, and acrylic. It emphasizes historical and contemporary development, technical skill, color relationship(s), and self-expression using aqueous media in painting. Different artists and topics are covered each semester. Field trips may be required.

ART 337  Intermediate Watercolor Painting  3 Units
Course Family: Painting
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 336 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course continues the study of the aqueous medium in painting begun in ART 336. More complex methods, concepts, varying approaches, and techniques using the aqueous medium are developed. Personal style is emphasized. Field trips may be required.

ART 339  Integrating Digital Media with Traditional Media I  3 Units
Same As: ARTNM 331
General Education: AA/AS Area I
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. This course is not available to students who have taken ARTNM 331.

ART 361  Printmaking: Survey  3 Units
Course Family: Printmaking
(see page 38 - limitation on active participatory courses)
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers various printmaking techniques, including but not limited to: relief printing, (wood, linoleum, collagraph, and rubber); monotype; stencil and/or silkscreen printing; and repetitive stencil printing. Each semester, different artists and/or visual examples are discussed. Field trips may be required. (C-ID ARTS 220)

ART 370  Three Dimensional Design  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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. (C-ID ARTS 101)

ART 371  Foundry Casting for Sculpture  3 Units
Course Family: Sculpture
(see page 38 - limitation on active participatory courses)
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces the techniques, metallurgy, and practice of casting bronze and aluminum for sculpture using the sand molding method. Emphasis is placed on historical examples, design, techniques, vocabulary, and safety. Patterns are utilized directly with sand to create sculptures in metal. Different artists and topics are covered each semester.

ART 372  Sculpture  3 Units
Course Family: Sculpture
(see page 38 - limitation on active participatory courses)
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Course Family: Sculpture
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 372 with a grade of "C" or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 374 Sculpture Lab 1-2 Units
Corequisite: ART 324, 370, 371, 372, 373, or 375
Course Transferable to UC/CSU
Hours: 54-108 hours LAB
This course offers laboratory experience to assist in completing complex sculpture projects. It focuses on the development of a personal creative vision furthering technical skills and complex problem solving.

ART 375 Figure Sculpture 3 Units
Course Family: Figure Studies
(see page 38 - limitation on active participatory courses)
Advisory: ART 304
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces figure sculpture, using the live undraped 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 3 Units
Course Family: Sculpture
(see page 38 - limitation on active participatory courses)
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Course Family: Ceramics-Hybrid
(see page 38 - limitation on active participatory courses)
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Course Family: Ceramics-Hybrid
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 390 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Course Family: Ceramics-Hybrid
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 390 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Course Family: Ceramics-Hybrid
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 390 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 420 Film Making 2 Units
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course involves completing a series of short, individual and/or group projects, focusing on various methods and techniques that can be used to create films/videos which are visually sophisticated and conceptually interesting. Work by contemporary and historically-significant filmmakers is also covered.

ART 430 Art and Children 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C1
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 (isms) 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  3 Units
Course Family: Studio Art and Practice
(see page 38 - limitation on active participatory courses)
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course focuses on analyzing and developing artists' mediums and techniques. Historical information about various materials and their relationship to personal imagery and style are emphasized. The composition of pigments, their origins, and various binders are explored. The construction of various artists' substrates and supports as well as the techniques of matting and framing art work are also covered. A supply fee may be required for this course. Field trips may be required.

ART 442  Introduction to Art Gallery Operations  2 Units
Course Family: Gallery Management
(see page 38 - limitation on active participatory courses)
Prerequisite: Successful completion of two studio courses from ART, ARTNM, ARTPH.
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
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  3 Units
Course Family: Gallery Management
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 442 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course continues students' experiences in gallery operations, including handling 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 may be required.

ART 444  Art Gallery and Portfolio Preparation  3 Units
Course Family: Studio Art and Practice
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 442 with a grade of “C” or better
Advisory: ENGWR 101 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 to galleries and museums may be required.

ART 445  Art Gallery Operations  3 Units
Course Family: Gallery Management
(see page 38 - limitation on active participatory courses)
Prerequisite: ART 443 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 may be required.

ART 470  Art Lab  1 Unit
Course Transferable to CSU
Hours: 54 hours LAB
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 495  Independent Studies in Art  1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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  1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to art with a cooperating site supervisor. Students are advised to consult with the Art Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
ART History

ARTH 300 Introduction to Art 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is a survey of the history and analysis of the visual arts, including drawing, painting, sculpture, architecture, and additional media. It offers a foundation for understanding art. Field trips to art galleries or museums may be required. (C-ID ARTH 100)

ARTH 302 Art: Stone Age Through the Middle Ages 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340
General Education: AAAS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is a survey of the history of art focusing on the development of art from prehistoric to the Middle Ages. It covers art in Europe and the Middle East from the Stone Age to the Middle Ages. Art works of each period are discussed and related to specific cultures. Field trips and/or individual visits to art galleries and museums are required. (C-ID ARTH 110)

ARTH 308 Renaissance Tradition in Art 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is a study of painting, sculpture, and architecture of European and U.S. cultures from the 14th century early Renaissance to the mid-19th century. Outstanding art works of each major period are discussed and related to specific cultures. A field trip to an art museum or gallery may be required. (Part of C-ID ARTH 120)

ARTH 310 Modern Art 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course covers 18th, 19th, 20th and 21st century art forms including painting, sculpture, and architecture in Europe and America. Styles discussed include NeoClassicism, Romanticism, Realism, Impressionism and Post-Impressionism, and the major movements of the 20th century. Post-Modern art is also discussed. A field trip to an art museum or gallery may be required. (C-ID ARTH 150; Part of C-ID ARTH 120)

ARTH 318 History of American Art 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 54 hours LEC

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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; AAAS Area VI; CSU Area C1;
IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This is a survey of art history throughout the Non-Western world. It covers the architecture, sculpture, and painting of the peoples of India, Africa, Asia, the Americas, the Arctic, Australia, and Oceania. 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 3 Units
General Education: AAAS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course surveys the art and culture of the Middle East. It focuses on Islamic art and architecture and provides fundamental information on the formation of Islamic art, its history, and philosophy. It includes visual examples from Arabic, Persian, and Indian cultures.

ARTH 334 International Contemporary Art 3 Units
General Education: AAAS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

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 3 Units
Same As: ARTPH 345
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is a survey of photography. It explores the evolution of the photographic medium, its impact on art, culture, and history from the invention 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.
Art Photography

**ARTPH 300 Basic Art Photography 3 Units**
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course examines the formal and technical aspects of 35mm film photography. Topics include critiques of major movements in the history of photography and contemporary silver-gelatin process artists. A problem-solving approach is utilized to explore compositional ideas. Camera operation, black and white film developing, and silver-gelatin printmaking are covered. Digital photography file management and editing concepts are introduced through film scans. A 35mm single lens reflex (SLR) camera as well as darkroom and portfolio supplies are required. Processing chemicals are provided. Field trips may be required. (C-ID ARTS 260)

**ARTPH 302 Black and White Silver Gelatin Photography Lab 1 Unit**
Course Family: Studio Art and Practice
(see page 38 - limitation on active participatory courses)
Corequisite: ARTPH 300 or 340
Course Transferable to CSU
Hours: 54 hours LAB
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 3 Units**
Advisory: ENGRW 102 and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better. ARTNM 302 with a grade of “C” or better.
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 print portfolio development. It also includes issues in contemporary photography and the history of photography. Digital cameras with 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 1 Unit**
Course Family: Studio Art and Practice
(see page 38 - limitation on active participatory courses)
Corequisite: ARTPH 305, 310, 322, or 360
Course Transferable to CSU
Hours: 54 hours LAB
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 3 Units**
Prerequisite: ARTPH 300 or 305 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units**
Prerequisite: ARTPH 305 with a grade of “C” or better
Advisory: Eligible for ENGRD 116 AND ENGRW 102; OR ESLR 320 AND ESLW 320.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers basic trends in photographic editing and presentation software. Editing photographs in Photoshop and file management in Lightroom along with introductions to similar software are covered. Topics include uses of social media in presentation and dissemination of photographs for commercial purposes and clients, as well as photographic output to print, social media, and the internet.

**ARTPH 322 Color Photography 3 Units**
Prerequisite: ARTPH 300 or 305 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units**
Prerequisite: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers alternative photographic printing processes produced in sunlight. No camera 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. Varied printing substrates are covered. Papers and printing surfaces, brushes, memory storage devices, digital printing resources, safety glasses, and protective gloves are required. Chemistry is provided. Field trips may be required.
ARTPH 345  Survey of Photography  3 Units
   Same As: ARTH 335
   Advisory: Eligible for ENGRD 310 or ENGRD 312
   AND ENGW 370; OR ESLR 340 AND ESLW 340.
   General Education: AAAS Area I; CSU Area CI; IGETC Area 3A
   Course Transferable to UC/CSU
   Hours: 54 hours LEC
   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  3 Units
   Prerequisite: ARTPH 300 or 305 with a grade of “C” or better
   Course Transferable to CSU
   Hours: 36 hours LEC; 54 hours LAB
   This course provides instruction in documentary photography and
   photojournalism techniques and concepts. Image production and critical discussion are emphasized. A portfolio including an extensive photo essay or documentary project is required. A 35mm single lens reflex (SLR) camera or a digital camera (dSLR) with manual options as well as darkroom, digital, and portfolio supplies are required. Field trips may be required.

ARTPH 360  Studio Lighting  3 Units
   Prerequisite: ARTPH 300 or 305 with a grade of “C” or better
   Course Transferable to UC/CSU
   Hours: 36 hours LEC; 54 hours LAB
   This course is a study in studio lighting techniques used in
   photography. Topics include lighting ratios, correct exposure
   using an electronic flash and metering, basic portraiture, choice
   of lighting equipment and modifiers, white balance adjustments,
   and color temperature. It also includes study of the history of
   studio photography. Black and white, color, and digital processes
   are included. A 35mm single lens reflex (SLR) or digital camera (dSLR) with manual options, lighting sync port, as well as darkroom or digital and portfolio supplies are required. Field trips may be required.

ARTPH 361  Photography Lab: Studio Lighting  1 Unit
   Course Family: Studio Art and Practice
   (see page 38 - limitation on active participatory courses)
   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
   Course Transferable to UC/CSU
   Hours: 54 hours LAB
   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 370  Fashion, Wedding, and Portrait Photography  3 Units
   Prerequisite: ARTPH 300 or 305 with a grade of “C” or better
   Course Transferable to CSU
   Hours: 36 hours LEC; 54 hours LAB
   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 35mm
digital camera (DSLR) with manual options is required. Fashion
   shoots are required. Field trips may be required.

ARTPH 375  Freelance Photography Careers  2 Units
   Advisory: Eligible for ENGRD 310 or ENGRD 312
   AND ENGW 370; OR ESLR 340 AND ESLW 340.
   Course Transferable to CSU
   Hours: 36 hours LEC
   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  1 Unit
   Course Family: Studio Art and Practice
   (see page 38 - limitation on active participatory courses)
   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
   Course Transferable to UC/CSU
   Hours: 54 hours LAB
   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  1-3 Units
   Prerequisite: None
   Course Transferable to CSU
   Hours: 54-162 hours LAB
   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  
1-4 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 
AND ENGWR 300; OR ESLR 340 AND ESLW 340.

Enrollment Limitation: Students must be in a paid or unpaid internship, 
volunteer position, or job related to art with a cooperating site supervisor. 
Students are advised to consult with the Art Photography Department 
faculty to review specific certificate and degree work experience require- 
ments.

General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB

This course provides students with opportunities to develop 
marketable skills in preparation for employment or advancement 
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 the work site, and developing workplace 
skills and competencies. During the semester, the student is required 
to complete 75 hours of related paid work experience, or 60 hours 
of related unpaid work experience for one unit. An additional 75 or 
60 hours of related work experience is required for each additional 
unit. All students are required to attend the first class 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.
ART NEW MEDIA

DEGREES AND CERTIFICATES

Art New Media Degree
Major Code: 011026A01
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.

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 Opportunities
Career opportunities include Graphic Designer, Character Designer, 3D Animator, Web Designer, 3D Modeler and Texture Artist, 3D Artist, Commercial Illustrator, and Print Designer.

Requirements for Degree

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ART 300</td>
<td>Drawing and Composition I</td>
<td>3</td>
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<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
<td>3</td>
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<tr>
<td>ART 323</td>
<td>Design: Color Theory</td>
<td>3</td>
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<tr>
<td>ARTH 310</td>
<td>Modern Art</td>
<td>3</td>
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<tr>
<td>ARTNM 305</td>
<td>History of Graphic Design</td>
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<tr>
<td>ARTNM 450</td>
<td>Portfolio for Art New Media</td>
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<td>And a minimum of 15 units from the following:</td>
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<tr>
<td>ARTNM 302</td>
<td>Digital Basics for Art New Media (1.5)</td>
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<tr>
<td>ARTNM 303</td>
<td>Graphic Design: Typography (3)</td>
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<tr>
<td>ARTNM 320</td>
<td>Facial Expression and Anatomy (3)</td>
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<td>or ART 306</td>
<td>Facial Expression and Anatomy (3)</td>
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<td>ARTNM 322</td>
<td>Beginning Digital Art (3)</td>
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<td>ARTNM 324</td>
<td>Digital Design (3)</td>
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<td>ARTNM 325</td>
<td>Intermediate Digital Design (3)</td>
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<td>ARTNM 326</td>
<td>Digital Painting (3)</td>
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<td>ARTNM 328</td>
<td>Beginning Digital Photo Imagery (3)</td>
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<td>ARTNM 330</td>
<td>Intermediate Digital Photo Imagery (3)</td>
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<td>ARTNM 331</td>
<td>Integrating Digital Media with Traditional Media I (3)</td>
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<td>or ART 339</td>
<td>Integrating Digital Media with Traditional Media I (3)</td>
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<td>ARTNM 332</td>
<td>Digital Video (3)</td>
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<td>ARTNM 335</td>
<td>Design for Publication (3)</td>
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<td>ARTNM 334</td>
<td>Digital Prepress (3)</td>
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<td>ARTNM 336</td>
<td>Advanced Projects In Graphic Design (3)</td>
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<td>ARTNM 338</td>
<td>College Magazine: Art Selection and Editing (1 - 2)</td>
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<td>ARTNM 339</td>
<td>College Magazine: Design and Production (3)</td>
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<td>ARTNM 370</td>
<td>Introduction to Illustration (3)</td>
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<td>or ART 314</td>
<td>Introduction to Illustration (3)</td>
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<tr>
<td>ARTNM 372</td>
<td>Character Design (3)</td>
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<tr>
<td>or ART 317</td>
<td>Character Design (3)</td>
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<tr>
<td>ARTNM 373</td>
<td>Storyboarding (3)</td>
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<td>ARTNM 401</td>
<td>Introduction to Web Design (3)</td>
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<td>ARTNM 402</td>
<td>Intermediate Web Design (3)</td>
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<td>ARTNM 404</td>
<td>Interactive Basics (3)</td>
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<td>ARTNM 405</td>
<td>Digital 2D Animation (3)</td>
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<td>ARTNM 406</td>
<td>Design for Tablets (3)</td>
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<tr>
<td>ARTNM 420</td>
<td>Introduction to 3D Modeling (3)</td>
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<td>ARTNM 421</td>
<td>3D Character Modeling (3)</td>
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<td>ARTNM 422</td>
<td>3D Animation (3)</td>
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<td>ARTNM 423</td>
<td>3D Texturing (3)</td>
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<td>ARTNM 429</td>
<td>3D Rigging and Rig Building (3)</td>
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<td>ARTNM 431</td>
<td>3D Short Production (3)</td>
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<td>CISW 300</td>
<td>Web Publishing (3)</td>
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<tr>
<td>WEXP 498</td>
<td>Work Experience in (Subject) (1 - 4)</td>
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</tbody>
</table>

Degree: A.A. - Art New Media
A.A. - Technical Communications

Certicates:
ARTNM: Character Design
ARTNM: Commercial Illustration
3D Animation
3D Modeling and Texturing
3D Rigging Technical Director
3D Technical Director
Graphic Design: Intern Artist
Graphic Design: Junior Artist
Graphic Design: Production Artist
Illustration
Web Design
Technical Communications

Department Certificate:
Foundation

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

ARTNM: Character Design Certificate
Major Code: 011396C01
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.


**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 Opportunities**

Career opportunities include editorial, advertising, technical and book illustration, 3D modeling and texturing, animation, set design, and product design.

**Requirements for Certificate**  
**18 Units**

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ART 300</td>
<td>Drawing and Composition I</td>
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<tr>
<td>ART 304</td>
<td>Figure Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 306</td>
<td>Facial Expression and Anatomy (3)</td>
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<td>Digital Painting</td>
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<td>ARTNM 372</td>
<td>Character Design</td>
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<td>ART 305</td>
<td>Figure Drawing II</td>
<td>3</td>
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<tr>
<td>ART 375</td>
<td>Figure Sculpture</td>
<td>3</td>
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</tbody>
</table>

**ARTNM: Commercial Illustration Certificate**

**Major Code: 011397C01**

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.

**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 Opportunities**

Career opportunities include editorial, advertising, technical and book illustration, 3D modeling and texturing, animation, set design, and product design.

**Requirements for Certificate**  
**18 Units**

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<tr>
<td>ART 304</td>
<td>Figure Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 324</td>
<td>Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 326</td>
<td>Digital Painting</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 370</td>
<td>Introduction to Illustration (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 314</td>
<td>Introduction to Illustration (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**3D Animation Certificate**

**Major Code: 011484C01**

This certificate focuses on traditional animation principles to create believable animations. Animations created range from flying logos 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.

**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 high quality 3D models from live or image reference, and animate the models for use in demonstration reels.
- create a portfolio quality 3D 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 the approval in a weekly review.
- finish work for approval in a timely manner.

**Career Opportunities**

Students can apply their 3D 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 3D animation at a four-year college or choose an entry level position in any of the 3D animation industries.

See losrios.edu/gainful-emp-info/gedt.php?major=011484C01 for Gainful Employment Disclosure.

**Requirements for Certificate**  
**18 Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 300</td>
<td>Drawing and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ART 304</td>
<td>Figure Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 324</td>
<td>Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 326</td>
<td>Digital Painting</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 328</td>
<td>Beginning Digital Photo Imagery</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 370</td>
<td>Introduction to Illustration (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 314</td>
<td>Introduction to Illustration (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**American River College Catalog 2019-2020**

133
3D Modeling and Texturing Certificate

Major Code: 011483C01

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.

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 the 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 Opportunities

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, Web, and fine art.

Requirements for Certificate 18 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 375</td>
<td>Figure Sculpture</td>
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<tr>
<td>ARTNM 420</td>
<td>Introduction to 3D Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 421</td>
<td>3D Character Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 423</td>
<td>3D Texturing</td>
<td>3</td>
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</table>

A minimum of 3 units from the following:

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTNM 431</td>
<td>3D Short Production</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 432</td>
<td>3D Rigging and Rig Building</td>
<td>3</td>
</tr>
<tr>
<td>CISC 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>MATH 372</td>
<td>College Algebra for Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MATH 373</td>
<td>Trigonometry for Calculus</td>
<td>4</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTNM 431</td>
<td>3D Short Production</td>
<td>3</td>
</tr>
<tr>
<td>or WEXP 498</td>
<td>Work Experience in (Subject) (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>

3D Rigging Technical Director Certificate

Major Code: 011494C01

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.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- 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.
- differentiate the deformation needs of realistic musculature and traditional cartoon movement.
- create a portfolio quality demonstration reel of their rigs animated.
- 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 Opportunities

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.

Requirements for Certificate 21 Units

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ARTNM 420</td>
<td>Introduction to 3D Modeling</td>
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</tr>
<tr>
<td>ARTNM 429</td>
<td>3D Rigging and Rig Building</td>
<td>3</td>
</tr>
<tr>
<td>CISC 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>MATH 372</td>
<td>College Algebra for Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MATH 373</td>
<td>Trigonometry for Calculus</td>
<td>4</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTNM 431</td>
<td>3D Short Production</td>
<td>3</td>
</tr>
<tr>
<td>or WEXP 498</td>
<td>Work Experience in (Subject) (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>
Career Opportunities

Students can apply 3D 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 at a four-year college or choose an entry-level position in any of the 3D animation industries.

Requirements for Certificate 30 Units

ART 300  Drawing and Composition I .............................................................. 3
ARTNM 320  Facial Expression and Anatomy ..................................................... 3
or ARTNM 372  Character Design ................................................................. 3
ARTNM 420  Introduction to 3D Modeling ......................................................... 3
CISP 300  Algorithm Design/Problem Solving .................................................. 3
MATH 330  Trigonometry ................................................................................. 3

A minimum of 6 units from the following:.......................................................... 6
ART 304  Figure Drawing I (3)
ART 320  Design: Fundamentals (3)
ART 370  Three Dimensional Design (3)
ART 376  Functional Sculpture (3)
ARTNM 373  Storyboarding (3)

A minimum of 9 units from the following: .......................................................... 9
ARTNM 421  3D Character Modeling (3)
ARTNM 422  3D Animation (3)
ARTNM 423  3D Texturing (3)
ARTNM 429  3D Rigging and Rig Building (3)
ARTNM 431  3D Short Production (3)
WEXP 498  Work Experience in (Subject) (1 - 4)

Graphic Design: Intern Artist Certificate

Major Code: 011398C01

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.

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 Opportunities

Students can apply their acquired skills in typography, software and concept development to apply for production artist or junior graphic designer positions.

See losrios.edu/gainful-emp-info/gedt.php?major=011392C02 for Gainful Employment Disclosure.

Requirements for Certificate 30 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
ARTNM 356  Advanced Projects in Graphic Design ........................................... 3
WEXP 498  Work Experience in (Subject) ......................................................... 1 - 4
**Graphic Design: Production Artist Certificate**

**Major Code: 011399C01**

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.

**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 Opportunities**

This certificate prepares students for entry-level print or web production artist positions.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTNM 324</td>
<td>Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 328</td>
<td>Beginning Digital Photo Imagery</td>
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</tr>
<tr>
<td>ARTNM 352</td>
<td>Design for Publication</td>
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</tr>
<tr>
<td>ARTNM 354</td>
<td>Digital Prepress</td>
<td>3</td>
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<tr>
<td>ARTNM 359</td>
<td>College Magazine: Design and Production</td>
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</tr>
<tr>
<td>ARTNM 401</td>
<td>Introduction to Web Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**Illustration Certificate**

**Major Code: 011393C01**

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.

**Student Learning Outcomes**

*Upon completion of this program, the student will be able to:*

- create drawn and painted objects and the human figure from direct observation
- 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 Opportunities**

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011393C01 for Gainful Employment Disclosure.

**Web Design Certificate**

**Major Code: 011395C01**

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.

**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 Opportunities**

Web design skills are used in business, government, educational institutions, and the entertainment industry.

See losrios.edu/gainful-emp-info/gedt.php?major=011395C01 for Gainful Employment Disclosure.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ART 300</td>
<td>Drawing and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ART 304</td>
<td>Figure Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 323</td>
<td>Design: Color Theory</td>
<td>3</td>
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<tr>
<td>ART 327</td>
<td>Painting I (3)</td>
<td>3</td>
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<tr>
<td>or ART 336</td>
<td>Watercolor Painting (3)</td>
<td>3</td>
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<tr>
<td>ART 310</td>
<td>Modern Art</td>
<td>3</td>
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<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 320</td>
<td>Facial Expression and Anatomy (3)</td>
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</tr>
<tr>
<td>or ART 306</td>
<td>Facial Expression and Anatomy (3)</td>
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</tr>
<tr>
<td>ARTNM 324</td>
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</tr>
<tr>
<td>ARTNM 326</td>
<td>Digital Painting</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 370</td>
<td>Introduction to Illustration (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 314</td>
<td>Introduction to Illustration (3)</td>
<td>3</td>
</tr>
</tbody>
</table>
Technical Communications Degree
Major Code: 011222A01
This is an interdisciplinary course of study designed to prepare students for employment as professional writers and communicators in a variety of media intended to instruct and inform audiences. The degree program includes substantial course work in writing, information design, editing, page design, online help development, web site creation, and the use of industry standard applications.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• analyze audience information needs and propose solutions to aid the audience.
• design technical communication solutions for a variety of industry and government purposes.
• design and create web sites and help systems with effective visual design, navigation, and written content.
• design and publish printed pages with effective design, organization, content, and indexing.
• compose professional prose for a variety of audiences with a variety of purposes.
• compose and edit professional documents in grammatically correct, concise English.
• create and use style templates in a variety of industry standard software.

Career Opportunities
Technical communicators may be employed in a variety of occupations in government, scientific firms, nonprofits, natural resources, finance, education, and high tech.

Requirements for Degree: 36.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 100</td>
<td>English for the Professional</td>
<td>3</td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 300</td>
<td>Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>TECCOM 300</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>TECCOM 310</td>
<td>Technical/Professional Communication: Writing Reports</td>
<td>3</td>
</tr>
<tr>
<td>TECCOM 320</td>
<td>Technical/Professional Communication: Proposal Writing</td>
<td>3</td>
</tr>
<tr>
<td>TECCOM 330</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
</tr>
<tr>
<td>TECCOM 340</td>
<td>Technical/Professional Communication: Developing Help Systems</td>
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And a minimum of 12 units from the following:

<table>
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<tr>
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<tbody>
<tr>
<td>ARTNM 328</td>
<td>Beginning Digital Photo Imagery</td>
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</tr>
<tr>
<td>ARTNM 330</td>
<td>Intermediate Digital Photo Imagery</td>
<td></td>
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<tr>
<td>ARTNM 352</td>
<td>Design for Publication</td>
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<tr>
<td>CISA 331</td>
<td>Intermediate Desktop Publishing</td>
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<td>CISW 310</td>
<td>Advanced Web Publishing</td>
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<tr>
<td>CISW 321</td>
<td>Web Site Development using Dreamweaver</td>
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<tr>
<td>CISW 400</td>
<td>Client-side Web Scripting</td>
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<tr>
<td>CISW 410</td>
<td>Middleware Web Scripting</td>
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</tr>
<tr>
<td>ENGWR 301</td>
<td>College Composition and Literature</td>
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</table>

Requirements for Certificate: 21.5-22.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ARTNM 352</td>
<td>Design for Publication</td>
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</tr>
<tr>
<td>or CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>or CISA 331</td>
<td>Intermediate Desktop Publishing</td>
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<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
<td>3</td>
</tr>
<tr>
<td>TECCOM 300</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>TECCOM 330</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
</tr>
<tr>
<td>TECCOM 340</td>
<td>Technical/Professional Communication: Developing Help Systems</td>
<td>1.5</td>
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</table>

And a minimum of 6 units from the following:

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<tbody>
<tr>
<td>BUS 100</td>
<td>English for the Professional</td>
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</tr>
<tr>
<td>CISW 321</td>
<td>Web Site Development using Dreamweaver</td>
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<td>TECCOM 310</td>
<td>Technical/Professional Communication: Writing Reports</td>
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<tr>
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<td>Technical/Professional Communication: Proposal Writing</td>
<td></td>
</tr>
</tbody>
</table>

Associate Degree Requirements: The Technical Communications Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
DEPARTMENT CERTIFICATE

Foundation Certificate
This entry level certificate introduces the tools and context fundamental for the field of digital media.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• construct visual composition using design fundamentals.
• construct visual composition using typography principles.
• integrate traditional media and digital media.
• construct composition based on the history of graphic design.
• create basic digital composition using industry-standard tools.

Career Opportunities
This program prepares students to apply their knowledge and experiences in many industries that require basic digital design skills. These positions include internship and entry-level visual communication opportunities within industries such as design, arts, entertainment, business, and education.

Requirements for Certificate 10.5 Units
ARTNM 302  Digital Basics for Art New Media ........................................ 1.5
ARTNM 303  Graphic Design: Typography ................................................. 3
ARTNM 305  History of Graphic Design ..................................................... 3
ARTNM 331  Media Studio I: Pigment-Based Media ................................... 3

Art New Media

ARTNM 302 Digital Basics for Art New Media  1.5 Units
Course Transferable to CSU
Hours: 18 hours LEC; 27 hours LAB
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  3 Units
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 wide range of sources and cultures.

ARTNM 320 Facial Expression and Anatomy  3 Units
Same As: ART 306
Prerequisite: ART 300 with a grade of “C” or better
Advisory: ART 304
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers human facial expression and anatomy using live models, anatomical references, and imagination. 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 ART 306.

ARTNM 322 Beginning Digital Art  3 Units
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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. (C-ID ARTS 250)

ARTNM 324 Digital Design  3 Units
Advisory: ARTNM 303; Eligible for ENGRD 310 or ENGRD 312
AND ENWR 300; OR ESLR 340 AND ESLW 340; AND ART 300
OR ART 320 and ARTNM 302
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
Prerequisite: ARTNM 324 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
Advisory: ART 300 and ARTNM 302
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces the fundamental principles of color, drawing, and painting using the basic tools of Corel Painter. Visual communication skills of color, drawing, and painting are applied to produce individual portfolio-quality projects.

ARTNM 328 Beginning Digital Photo Imagery  3 Units
Advisory: ART 300 and ARTNM 302
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
Prerequisite: ARTNM 328 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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, printing and/or transferring images onto various different media, working with large format images, and commercial printers.

ARTNM 331  Integrating Digital Media with Traditional Media I  3 Units
Same As: ART 339
General Education: AA/AS Area I
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. This course is not available to students who have taken ART 339.

ARTNM 332  Digital Video  3 Units
Advisory: ARTNM 302
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course applies the principles of cinematography and editing to the production of digital video. Industry standard software is employed to capture/import, edit, and produce high-end visual productions. The course includes transitions, multiple layers, alpha channels, and composite green screen segments. Evaluation of multimedia projects containing video segments in terms of design aesthetics and technical competence is included. This course examines the genres of documentary, short narrative film, title sequencing, and experimental film.

ARTNM 352  Design for Publication  3 Units
Advisory: ART 320 or ARTNM 310 AND ARTNM 302.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 promotional, such as fliers, posters, and brochures is also included.

ARTNM 354  Digital Prepress  3 Units
Prerequisite: ARTNM 352 with a grade of “C” or better
Advisory: ARTNM 302 AND ENGWR 102 and ENGRD 116 OR ESLR 320 and ESLW 320
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required.

ARTNM 356  Advanced Projects in Graphic Design  3 Units
Prerequisite: ARTNM 352 and 359 with grades of “C” or better
Advisory: ARTNM 324 and 328 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the basic techniques and approaches used by graphic design studios as they relate to concept development, branding, and target audience assessment. Emphasis is placed on project analysis, research, and presentation. Projects are produced through the integration of industry standard graphics software used for print production, vector based graphics, and digital imaging. A portfolio of professional level projects is developed and presented. Field trips are required.

ARTNM 358  College Magazine: Art Selection and Editing  1-2 Units
Advisory: ARTH 300 and ARTNM 302
Course Transferable to CSU
Hours: 12-24 hours LEC; 18-36 hours LAB
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 reformating and naming files, organizing files into media groups for evaluation.

ARTNM 359  College Magazine: Design and Production  3 Units
Advisory: ARTNM 302, 324, 328, 352, or 354
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides instruction in the design and production 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 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  3 Units
Same As: ART 314
Prerequisite: ART 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 372 Character Design  3 Units
Course Family: Applied Drawing
(see page 38 - limitation on active participatory courses)
Same As: ART 317
Prerequisite: ART 302 with a grade of “C” or better
Advisory: ART 304 and ARTNM 302
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces the visual development of characters based on archetypal patterns. Students will consider 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 ART 317.

ARTNM 373 Storyboarding  3 Units
Prerequisite: ART 302 with a grade of “C” or better
Advisory: ARTNM 372 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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, conceptual exercises, drawing practice, and the use of cinematic rules used in the industry are covered. 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  3 Units
Advisory: ARTNM 303, 324, and 328
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. It also applies industry-standard authoring tools, and closely examines the meaning and validity of interactivity. Meaning and validity of interactivity are closely examined.

ARTNM 402 Intermediate Web Design  3 Units
Prerequisite: ARTNM 401 with a grade of “C” or better, or placement through the assessment process.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. Topics include an in-depth discussion on the processes and the strategies of combining text, images, animation, video, and audio elements to create compelling visual experiences for web users.

ARTNM 404 Interactive Basics  3 Units
Advisory: ARTNM 328, ARTNM 401, or CISW 300
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces the design and delivery of rich interactive content suitable for graphical experiences across personal computers, mobile devices, and screens. Topics include generating interactivity between vector-based graphics, animation, integration of digital audio, raster graphics, and digital video. Industry standard workflow from image authoring to interactive authoring is discussed in detail. Visual design principles and interface design concepts are integrated into the making of portfolio-quality projects.

ARTNM 405 Digital 2D Animation  3 Units
Advisory: ART 300 and ARTNM 302
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides techniques for using the traditional principles of animation with industry-standard software. Topics include animating a bouncing ball, ball with a tail, ball with legs, full body bipedal, and a face synchronized to audio. Character animation topics involve locomotion, such as walking and jumping, using the traditional principles. Technical issues, such as frame-by-frame animation (cell animation), rotoscoping, interpolated or f-curve animation, are discussed and applied. Projects can be published on the Web, CD-ROM, DVD, and video.

ARTNM 406 Design for Tablets  3 Units
Advisory: ARTNM 330, 352, and 402
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
Advisory: ART 320, ART 370, ARTNM 302, ARTNM 310, or ARTNM 370
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 Character Modeling 3 Units
Prerequisite: ARTNM 420 with a grade of "C" or better
Advisory: ART 375
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a continuation of ARTNM 420. Industry techniques and issues related to humanoid character modeling are analyzed and applied. Industry issues, such as the topology flow of human anatomy, facial blend targets, and joint correction, are developed. Clothing, hair, and accessories are added to the characters, strictly following concept designs.

ARTNM 422 3D Animation 3 Units
Prerequisite: ARTNM 405 with a grade of "C" or better
Advisory: ART 375, DANCE 390, or TAP 300
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides 3D animation techniques using industry standard software. It covers the traditional principles from the golden years of Disney Studios 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. Technical issues, such as walking along an uneven ground, importing and blending MoCap data, and locomotion around obstacles, are addressed.

ARTNM 423 3D Texturing 3 Units
Prerequisite: ARTNM 420 with a grade of "C" or better
Advisory: ARTNM 328, ARTPH 300, and ARTPH 305
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides texturing techniques, or image mapping, using industry standard software, such as Adobe Photoshop, Pixologic ZBrush, and Autodesk Maya. Topics include photo-manipulation, unwrapping and painting hard-surface and sub-division surface models and creating a texture library. Environment and character-texture maps are created using image-mapping techniques.

ARTNM 429 3D Rigging and Rig Building 3 Units
Prerequisite: ARTNM 420 with a grade of "C" or better
Advisory: ARTNM 421 and 422
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 3D Short Production 3 Units
Prerequisite: ARTNM 420 or 422 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course surveys and practices the pipeline of computer generated three dimensional (CG 3D) imagery based on real world short production scenarios; productions that are three minutes or less. The essential skills needed to survive in the Sacramento Valley CG 3D markets are covered. Areas of focus include a variety of real world short production scenarios, such as court room scene reenactment, work-at-home online markets, small business CG 3D logo, as well as visualization projects in the medical, invention, architectural, and landscaping fields.

ARTNM 450 Portfolio for Art New Media 3 Units
Prerequisite: Completion of 9 units from one Art New Media Certificate with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRD 300 OR DANC 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to art new media with a cooperating site supervisor. Students are advised to consult with the Art New Media Department faculty to review specific certificate and degree work experience requirements
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
DEGREES AND CERTIFICATES

ASL-English Interpreter Preparation Program Degree

Major Code: 011309A01

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.

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.

• analyze, 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 Opportunities

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.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

• Successful completion of one of the following:
  a) Graduation from an accredited high school in the United States
  b) General Educational Development (GED) Test
  c) California High School Proficiency Examination (CHSPE) prior to time of application
  d) A high school diploma from a school outside the United States with transcripts evaluated by a National Association of Credential Evaluation Services (NACES) approved independent agency. Such cases will be evaluated on an individual basis.
  e) An Associate of Arts/Associate of Science degree or higher from a regionally accredited college.
  f) College attended outside the United States with transcripts evaluated by a NACES approved independent agency, demonstrating A.A./A.S. degree or higher. Such cases will be evaluated on an individual basis.

• DEAF 316: American Sign Language IV or the equivalent, with a grade of “C” or better.

• Eligibility for ENGRD 310 or 312.

• 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 Humanities Division, the coordinator of the IPP or at the ARC IPP website. The Interpreter Preparation Program 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 the deadline to submit the application is by the second 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.
Requirements for Degree  

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<tr>
<th>Course Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>DEAF 318</td>
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<tr>
<td>INTRP 300</td>
<td>Ethics and Professional Standards of Interpreting</td>
<td>3</td>
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<td>INTRP 301</td>
<td>American Sign Language Discourse</td>
<td>3</td>
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<tr>
<td>INTRP 303</td>
<td>Orientation to the Interpreting Profession</td>
<td>3</td>
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<td>INTRP 305</td>
<td>ASL to English Interpreting</td>
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<td>INTRP 307</td>
<td>English to ASL Interpreting</td>
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<td>INTRP 310</td>
<td>Introduction to Deaf Blind Interpreting</td>
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<td>INTRP 312</td>
<td>Introduction to Oral Transmission</td>
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<td>INTRP 320</td>
<td>Simultaneous Interpreting</td>
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<td>INTRP 325</td>
<td>Transliteration</td>
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<tr>
<td>INTRP 350</td>
<td>Service Learning for Interpreters</td>
<td>2</td>
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<tr>
<td>INTRP 352</td>
<td>Mock Interpreting I</td>
<td>1</td>
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<tr>
<td>INTRP 354</td>
<td>Mock Interpreting II</td>
<td>1</td>
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<tr>
<td>INTRP 356</td>
<td>Fieldwork in Interpretation</td>
<td>5</td>
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And a minimum of 4 units from the following:

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<td>INTRP 314</td>
<td>Introduction to Multicultural Communication</td>
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<tr>
<td>INTRP 330</td>
<td>Introduction to Educational Interpreting, K-12</td>
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<tr>
<td>INTRP 332</td>
<td>Introduction to Educational Interpreting, Post Secondary</td>
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<td>INTRP 334</td>
<td>Introduction to Medical Interpreting</td>
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<tr>
<td>INTRP 336</td>
<td>Introduction to Performing Arts Interpreting</td>
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<tr>
<td>INTRP 338</td>
<td>Introduction to Social Services and Employment Interpreting</td>
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<td>INTRP 340</td>
<td>Introduction to Video Relay and Telephone Interpreting</td>
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<td>INTRP 342</td>
<td>Introduction to Religious Interpreting</td>
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<tr>
<td>INTRP 344</td>
<td>Introduction to Working with a Certified Deaf Interpreter</td>
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<td>INTRP 349</td>
<td>Signing for Dependency Situations</td>
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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.

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.
- analyze, 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 Opportunities

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.

See losrios.edu/gainful-emp-info/gedt.php?major=01X1309C01 for Gainful Employment Disclosure.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Successful completion of one of the following:
  a) Graduation from an accredited high school in the United States.
  b) General Educational Development (GED) Test
  c) California High School Proficiency Examination (CHSPE) prior to time of application.
  d) A high school diploma from a school outside the United States with transcripts evaluated by a National Association of Credential Evaluation Services (NACES) approved independent agency. Such cases will be evaluated on an individual basis.
  e) An Associate of Arts/Associate of Science degree or higher from a regionally accredited college.
  f) College attended outside the United States with transcripts evaluated by a NACES approved independent agency, demonstrating A.A./A.S. degree or higher. Such cases will be evaluated on an individual basis.
- DEAF 316: American Sign Language IV or the equivalent, with a grade of “C” or better.
- Eligibility for ENGRD 310 or 312.
- 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 Humanities Division, the coordinator of the IPP or at the ARC IPP website. The Interpreter Preparation Program 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 the deadline to submit the application is by the second 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.

See losrios.edu/gainful-emp-info/gedt.php?major=01X1309C01 for Gainful Employment Disclosure. (continued on next page)
(ASL-English Interpreter Preparation Program Certificate continued)

- 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.

Requirements for Certificate  

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<tr>
<td>INTRP 300</td>
<td>Ethics and Professional Standards of Interpreting</td>
<td>3</td>
</tr>
<tr>
<td>INTRP 301</td>
<td>American Sign Language Discourse</td>
<td>3</td>
</tr>
<tr>
<td>INTRP 303</td>
<td>Orientation to the Interpreting Profession</td>
<td>3</td>
</tr>
<tr>
<td>INTRP 305</td>
<td>ASL to English Interpreting</td>
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<tr>
<td>INTRP 307</td>
<td>English to ASL Interpreting</td>
<td>3</td>
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<tr>
<td>INTRP 310</td>
<td>Introduction to Deaf Blind Interpreting</td>
<td>0.5</td>
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<tr>
<td>INTRP 312</td>
<td>Introduction to Oral Transmission</td>
<td>0.5</td>
</tr>
<tr>
<td>INTRP 320</td>
<td>Simultaneous Interpreting</td>
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<tr>
<td>INTRP 325</td>
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</tr>
<tr>
<td>INTRP 350</td>
<td>Service Learning for Interpreters</td>
<td>2</td>
</tr>
<tr>
<td>INTRP 352</td>
<td>Mock Interpreting I</td>
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<tr>
<td>INTRP 354</td>
<td>Mock Interpreting II</td>
<td>1</td>
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<tr>
<td>INTRP 356</td>
<td>Fieldwork in Interpretation</td>
<td>5</td>
</tr>
<tr>
<td>INTRP 314</td>
<td>Introduction to Multicultural Communication (0.5)</td>
<td>4</td>
</tr>
<tr>
<td>INTRP 330</td>
<td>Introduction to Educational Interpreting, K-12 (1)</td>
<td>4</td>
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<tr>
<td>INTRP 332</td>
<td>Introduction to Educational Interpreting, Post Secondary (1)</td>
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<td>INTRP 334</td>
<td>Introduction to Medical Interpreting (1)</td>
<td>4</td>
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<tr>
<td>INTRP 336</td>
<td>Introduction to Performing Arts Interpreting (1)</td>
<td>4</td>
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<tr>
<td>INTRP 338</td>
<td>Introduction to Social Services and Employment Interpreting (1)</td>
<td>4</td>
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<tr>
<td>INTRP 340</td>
<td>Introduction to Video Relay and Telephone Interpreting (0.5)</td>
<td>4</td>
</tr>
<tr>
<td>INTRP 342</td>
<td>Introduction to Religious Interpreting (0.5)</td>
<td>4</td>
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<tr>
<td>INTRP 344</td>
<td>Introduction to Working with a Certified Deaf Interpreter (0.5)</td>
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<tr>
<td>INTRP 349</td>
<td>Signing for Dependency Situations (0.5)</td>
<td>4</td>
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</table>

And a minimum of 4 units from the following:

- 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)

Total Units required: 50

Requirements for Certificate

- INTRP 300 Ethics and Professional Standards of Interpreting 3 Units
  
  Prerequisite: INTRP 303 with grades of “C” or better
  Course Transferable to CSU
  Hours: 54 hours LEC

  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 American Sign Language Discourse 3 Units
  
  Enrollment Limitation: Acceptance into the Interpreter Preparation Program through a pre-enrollment application and interview/screening process.
  Course Transferable to CSU
  Hours: 54 hours LEC

  This course provides a foundation in American Sign Language (ASL) discourse and an introduction to translation with a focus on appropriate cultural norms used during interactions. Topics include conversational signals, prosodic features, register variation, message analysis, message transfer and translation. This course is formerly known as SILA 320.

- INTRP 303 Orientation to the Interpreting Profession 3 Units
  
  Enrollment Limitation: Acceptance into the Interpreter Preparation Program through a pre-enrollment application and interview/screening process.
  Course Transferable to CSU
  Hours: 54 hours LEC

  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 ASL to English Interpreting 3 Units
  
  Prerequisite: INTRP 303 with a grade of “C” or better
  Corequisite: INTRP 305
  Course Transferable to CSU
  Hours: 36 hours LEC; 54 hours LAB

  This course provides basic skills in translation and consecutive interpreting from American Sign Language (ASL) to 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 307 English to ASL Interpreting 3 Units
  
  Prerequisite: INTRP 303 with a grade of “C” or better
  Corequisite: INTRP 307
  Course Transferable to CSU
  Hours: 36 hours LEC; 54 hours LAB

  This course provides basic skills in translation and consecutive interpreting from English to 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 310 Introduction to Deaf Blind Interpreting .5 Units
Prerequisite: INTRP 303 with a grade of “C” or better
Course Transferable to CSU
Hours: 9 hours LEC
This course provides an introduction to the Deaf-Blind community. Topics include sighted guide techniques, environmental and ergonomic considerations, modifications to the interpreting models, and additional responsibilities when interacting with Deaf-Blind individuals.

INTRP 312 Introduction to Oral Transmission .5 Units
Prerequisite: INTRP 303 with a grade of “C” or better
Course Transferable to CSU
Hours: 9 hours LEC
This course provides exposure to, background in, and techniques for oral transmission and interaction with oral Deaf people. Topics include speechreading skills, articulation, and support techniques.

INTRP 314 Introduction to Multicultural Communication .5 Units
Prerequisite: SILA 316 with a grade of “C” or better
Advisory: INTRP 305 and 307
Course Transferable to CSU
Hours: 9 hours LEC
This course is a focus on the field of multicultural communication. Cultural and linguistic diversity, personal life experiences, and enhancing racial and ethnic diversity in the interpreting profession are emphasized.

INTRP 320 Simultaneous Interpreting 4 Units
Prerequisite: INTRP 305 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 72 hours LEC
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 4 Units
Prerequisite: INTRP 320 with a grade of “C” or better
Advisory: SILA 330 and 332
Course Transferable to CSU
Hours: 72 hours LEC
This course provides basic skills in transliteration. It incorporates both ASL to English and English to ASL literal to idiomatic transliteration skills. Topics include language and consumer assessment, contact signing forms, semantic appropriateness, syntactic considerations, prosodic features, lipshadowing, lipreading, and fingerspelling reception and production.

INTRP 330 Introduction to Educational Interpreting, K-12 1 Unit
Prerequisite: INTRP 305 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
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, roles and responsibilities, communicating with children, and ethics.

INTRP 332 Introduction to Educational Interpreting, Post Secondary 1 Unit
Prerequisite: INTRP 305 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
This course is an introduction to interpreting in the educational setting with a focus on the postsecondary level of education. Emphasis is on vocabulary development and enrichment specific to educational interpreting, resource development, team building, and ethics.

INTRP 334 Introduction to Medical Interpreting 1 Unit
Prerequisite: INTRP 305 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
The course is an introduction to interpreting in the medical setting. Logistics, role and ethics, the impact of culture and language use are considered.

INTRP 336 Introduction to Performing Arts Interpreting 1 Unit
Prerequisite: INTRP 305 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
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 1 Unit
Prerequisite: INTRP 305 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
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 Video Relay and Telephone Interpreting .5 Unit
Prerequisite: INTRP 305 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 9 hours LEC
This course is an introduction to video relay and telephone interpreting. Environmental considerations, vocabulary development, resource building, video relay and telephone processes, etiquette, and ethics are considered.

INTRP 342 Introduction to Religious Interpreting .5 Unit
Prerequisite: INTRP 305 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 9 hours LEC
This course is an introduction to interpreting in the religious setting. Environmental considerations, vocabulary development, resource building, introductory knowledge, and ethics are covered.
INTRP 344 Introduction to Working with a Certified Deaf Interpreter .5 Unit
Prerequisite: INTRP 305 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 9 hours LEC
This course is an introduction to interpreting while working with a certified Deaf interpreter (CDI). 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 Signing for Dependency Situations .5 Unit
Prerequisite: INTRP 303 with a grade of “C” or better
Course Transferable to CSU
Hours: 9 hours LEC
This course provides an introduction to the signs used by Deaf people related to sex, alcohol, and drug abuse. Resources available to Deaf people including Deaf Hope, Deaf Safe, and sobriety meetings are covered. Methods for interpreting these resources are covered.

INTRP 350 Service Learning for Interpreters 2 Units
Prerequisite: INTRP 301 and 303 with grades of “C” or better
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
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 provision.

INTRP 352 Mock Interpreting I 1 Unit
Prerequisite: INTRP 305 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
This course provides an opportunity to interpret for live or taped presenters in class. Focus is on application of text analysis, assignment preparation, team interpreting, and information processing.

INTRP 354 Mock Interpreting II 1 Unit
Prerequisite: INTRP 300 and 307 with grades of “C” or better
Course Transferable to CSU
Hours: 4.5 hours LEC; 40.5 hours LAB
This course provides an opportunity to interpret for an ongoing college class. Focus is on 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 5 Units
Prerequisite: INTRP 300 and 320 with grades of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC; 108 hours LAB
This course provides an opportunity to apply classroom learning to real-world practice in interpreting in both on-campus and off-campus settings. 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 which may include observation of interpreters and individual and team interpreting practice.

INTRP 495 Independent Studies in Sign Language Studies - Interpreting 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
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.

General Science Degree
Major Code: 011229A01
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.

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.

Requirements for Degree
18 Units

A minimum of 18 units from the following: ......................................................... 18

Physical Science Courses:
- ASTR 300, 310, 320, 330, 400, 481, 495, 499
- CHEM 305, 306, 309, 310, 400, 401, 420, 421, 423, 495, 499
- GEOG 300, 301, 305, 306, 307, 308, 309, 391, 392, 393, 394, 495, 499
- GEOL 300, 301, 305, 306, 310, 311, 320, 325, 330, 331, 345, 390, 495, 499
- PHYS 310, 311, 312, 350, 410, 421, 431, 495, 499
- PS 300, 301, 495, 499

Biological Science Courses:
- ANTH 300, 301, 303, 370, 372, 480, 495, 499
- BIOL 300, 301, 303, 305, 310, 322, 332, 342, 352, 370, 375, 390, 400, 410, 415, 420, 430, 431, 440, 442, 482, 495, 499
- BIOT 301, 305, 307, 311, 312, 499
- NATR 300, 302, 303, 304, 305, 306, 307, 310, 320, 322, 324, 330, 332, 346, 495, 499
- PSYC 310, 311, 495, 499

\*must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

Associate Degree Requirements: The General Science Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
<th>General Education</th>
<th>Course Transferable</th>
<th>Hours</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>ASTR 300</td>
<td>Introduction to Astronomy</td>
<td>3</td>
<td>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.</td>
<td>Advisory: MATH 100, 104 or 132 with a grade of “C” or better, AND eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340. General Education: AAAS Area IV; CSU Area B1; IGETC Area 5A Course Transferable to UC/CSU</td>
<td>Hours: 54 hours LEC</td>
<td>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.</td>
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<tr>
<td>ASTR 310</td>
<td>The Solar System</td>
<td>3</td>
<td>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. Emphasis is placed on how astronomers gain and refine their knowledge of the Universe and interpret the latest results of planetary exploration.</td>
<td>Advisory: MATH 100, 104 or 132 with a grade of “C” or better, AND eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340. General Education: AAAS Area IV; CSU Area B1; IGETC Area 5A Course Transferable to UC/CSU</td>
<td>Hours: 54 hours LEC</td>
<td>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. Emphasis is placed on how astronomers gain and refine their knowledge of the Universe and interpret the latest results of planetary exploration.</td>
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<tr>
<td>ASTR 320</td>
<td>Stars, Galaxies, and Cosmology</td>
<td>3</td>
<td>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. Emphasis is placed on how astronomers gain and refine their knowledge of the Universe and interpret the latest results of space exploration.</td>
<td>Advisory: MATH 100, 104 or 132 with a grade of “C” or better, AND eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340. General Education: AAAS Area IV; CSU Area B1; IGETC Area 5A Course Transferable to UC/CSU</td>
<td>Hours: 54 hours LEC</td>
<td>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. Emphasis is placed on how astronomers gain and refine their knowledge of the Universe and interpret the latest results of space exploration.</td>
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<tr>
<td>ASTR 330</td>
<td>Introduction to Astrobiology</td>
<td>3</td>
<td>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.</td>
<td>Advisory: MATH 100, 104 or 132 with a grade of “C” or better, AND eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340. General Education: AAAS Area IV; CSU Area B1; IGETC Area 5A Course Transferable to UC/CSU</td>
<td>Hours: 54 hours LEC</td>
<td>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.</td>
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<tr>
<td>ASTR 400</td>
<td>Astronomy Laboratory</td>
<td>1</td>
<td>This course covers the practical use of a telescope 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 are required.</td>
<td>Corequisite: ASTR 300, 310, 320, or 330 General Education: CSU Area B3; IGETC Area 5C Course Transferable to UC/CSU</td>
<td></td>
<td>This course covers the practical use of a telescope 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 are required.</td>
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<tr>
<td>ASTR 481</td>
<td>Honors Astronomy: Stars, Galaxies, and</td>
<td>4</td>
<td>This seminar-style course is an in-depth introduction to astronomy, focusing on stars, galaxies, and cosmology. It approaches current topics in astronomy through class discussion and laboratory activities, with an emphasis on critical thinking, problem-solving techniques, and conceptual reasoning.</td>
<td>Prerequisite: Placement into ENGWR 480 through the assessment process. Advisory: MATH 100, 104, or 132 with a grade of “C” or better General Education: AAAS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C Course Transferable to UC/CSU</td>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
<td>This seminar-style course is an in-depth introduction to astronomy, focusing on stars, galaxies, and cosmology. It approaches current topics in astronomy through class discussion and laboratory activities, with an emphasis on critical thinking, problem-solving techniques, and conceptual reasoning.</td>
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<tr>
<td>ASTR 495</td>
<td>Independent Studies in Astronomy</td>
<td>1-3</td>
<td>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.</td>
<td>Prerequisite: None Course Transferable to CSU Hours: 54-162 hours LAB</td>
<td></td>
<td>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.</td>
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</table>
Automotive Collision Technology

Degree and Certificate

Major Code, degree: 011038A01
Major Code, certificate: 011038C01

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 non-structural repairs and refinishing. It also covers various automotive systems, such as heating and air-conditioning, suspension steering, and electrical.

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 Opportunities

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011038C01 for Gainful Employment Disclosure.

Requirements for Degree or Certificate

53 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACT 100</td>
<td>Automotive Collision Basics</td>
<td>4</td>
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<tr>
<td>ACT 110</td>
<td>Component Repairs</td>
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<td>ACT 120</td>
<td>Non-Structural Repair</td>
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<td>ACT 130</td>
<td>Structural Repair</td>
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<td>ACT 131</td>
<td>Automotive Collision Welding</td>
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<td>ACT 140</td>
<td>Automotive Refinishing</td>
<td>4</td>
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<tr>
<td>ACT 161</td>
<td>Automotive Collision Software Systems, Estimating I</td>
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<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
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<td>AT 105</td>
<td>Mathematics for Automotive Technology</td>
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<td>AT 180</td>
<td>Automotive Data Acquisition</td>
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<tr>
<td>AT 310</td>
<td>Heating and Air-Conditioning Systems</td>
<td>3</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td>3</td>
</tr>
<tr>
<td>AT 330</td>
<td>Automotive Electrical Systems</td>
<td>6</td>
</tr>
</tbody>
</table>

A minimum of 4 units from the following: ........................................... 4

ACT 298 Work Experience in Collision Technology (1 - 4)

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

Automotive Claims Estimator Certificate

Major Code, certificate: 011513C02

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.

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 Opportunities

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011513C01 for Gainful Employment Disclosure.
(Automotive Claims Estimator Department Certificate continued)

Requirements for Certificate 16 Units
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 Keyboard proficiency test. This program can be completed in 15 units if student passes keyboarding test.

DEPARTMENT CERTIFICATES

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.

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 Opportunities

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 refinish 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 of a formal training program because it provides a foundation in the latest collision technology, including the techniques and equipment used on the job.

Requirements for Certificate 12 Units
ACT 110 Component Repairs ................................................................. 4
ACT 120 Non-Structural Repair ............................................................... 4
ACT 140 Automotive Refinishing ........................................................... 4

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.

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 Opportunities

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 body repair technicians. The U.S. Labor Department reports that job opportunity 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 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.

Requirements for Certificate 12 Units
ACT 110 Component Repairs ................................................................. 4
ACT 130 Structural Repair ................................................................. 4
ACT 131 Automotive Collision Welding ............................................. 4
### Automotive Collision Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 100</td>
<td>Automotive Collision Basics</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>ACT 110</td>
<td>Component Repairs</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
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<tr>
<td></td>
<td>Prerequisite: ACT 100 with a grade of &quot;C&quot; or better</td>
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<td></td>
<td>This course provides the technical principals 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 re-installation of movable glass, diagnosis of wind noise and water leaks, and techniques applicable to damaged vehicles. Students enrolled in the Collision Technology program at American River College (ARC) may be eligible to apply for Inter-Industry Conference on Automotive Collision Repairs (I-CAR) points and I-CAR certifications. This ARC-ACT/I-CAR alliance course also prepares students for Automotive Service Excellence (ASE) testing and National Automotive Technicians Education Foundation (NATEF) training standards.</td>
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<tr>
<td>ACT 120</td>
<td>Non-Structural Repair</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
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<tr>
<td></td>
<td>Prerequisite: ACT 100 with a grade of &quot;C&quot; or better</td>
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<td></td>
<td>This course provides 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. Students enrolled in the Collision Technology program at American River College (ARC) may be eligible to apply for Inter-Industry Conference on Automotive Collision Repair (I-CAR) points and I-CAR industry certifications. This ARC-ACT/I-CAR alliance course also prepares students for Automotive Service Excellence (ASE) testing, and National Automotive Technicians Educational Foundation (NATEF) training standards.</td>
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<tr>
<td>ACT 130</td>
<td>Structural Repair</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
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<tr>
<td></td>
<td>Prerequisite: ACT 100 and 131 with grades of &quot;C&quot; or better</td>
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<td></td>
<td>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. Students enrolled in the Collision Technology program at American River College (ARC) may be eligible to apply for Inter-Industry Conference on Automotive Collision Repair (I-CAR) points and I-CAR industry certifications. This ARC-ACT/I-CAR alliance course also prepares students for Automotive Service Excellence (ASE) testing, and National Automotive Technicians Education Foundation (NATEF) training standards.</td>
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<tr>
<td>ACT 131</td>
<td>Automotive Collision Welding</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
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<tr>
<td></td>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
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<td></td>
<td>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.</td>
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<tr>
<td>ACT 140</td>
<td>Automotive Refinishing</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
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<tr>
<td></td>
<td>Prerequisite: ACT 100 and 120 with grades of &quot;C&quot; or better</td>
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<td></td>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
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<tr>
<td></td>
<td>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). Students enrolled in the Automotive Collision Technology (ACT) program at American River College (ARC) may be eligible to apply for Inter-Industry Conference on Automotive Collision Repair (I-CAR) points and I-CAR industry certifications. This ARC-ACT/I-CAR alliance course also prepares students for Automotive Service Excellence (ASE) testing and National Automotive Technicians Education Foundation (NATEF) training standards.</td>
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<tr>
<td>ACT 150</td>
<td>Advanced Collision Frame &amp; Unibody</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
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<tr>
<td></td>
<td>Prerequisite: ACT 110, 120, 130, and 140 with grades of &quot;C&quot; or better</td>
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<td></td>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
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<tr>
<td></td>
<td>This course covers the principles and theories of advanced chassis design, development, and construction. Extensive bracket and frame fabrication and welding are emphasized.</td>
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<tr>
<td>ACT 152</td>
<td>Advanced Collision Suspensions</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: ACT 110, 120, 130, and 140 with grades of &quot;C&quot; or better</td>
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<td></td>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
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<td></td>
<td>This course covers the principles and theories of advanced suspension design, development, and construction. Topics include big brakes and air suspensions.</td>
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<tr>
<td>ACT 154</td>
<td>Advanced Collision Drivetrain</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: ACT 110, 120, 130, and 140 with grades of &quot;C&quot; or better</td>
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<td></td>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
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<tr>
<td></td>
<td>This course covers the principles and theories of advanced engines and transmissions. Topics include engine performance tuning and transmission selection.</td>
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<tr>
<td>ACT 156</td>
<td>Advanced Collision Refinish</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: ACT 110, 120, 130, and 140 with grades of &quot;C&quot; or better</td>
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<tr>
<td></td>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>ACT 161</td>
<td>Automotive Collision Software Systems, Estimating I</td>
<td>4</td>
<td>54 LEC; 54 LAB</td>
</tr>
<tr>
<td></td>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
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</tbody>
</table>
ACT 298 Work Experience in Collision Technology 1-4 Units

Same As: DCDT 298
Advisory: Eligible for ENGRD 310 or ENGRD 312 A
ND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the automotive collision field with a cooperating site supervisor. Students are advised to consult with the Automotive Collision Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(6)
Hours: 60-300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
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:
- 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

Automotive Analysis Degree and Certificate
Major Code, degree: 011480A01
Major Code, certificate: 011480C01
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.

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 Opportunities
Automotive Technician; Smog Check Technician
See losrios.edu/gainful-emp-info/gedt.php?major=011480C01 for Gainful Employment Disclosure.

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

**Career Opportunities**

Employment as a technician, shop foreman, service manager for new car dealers, automotive repair shops, fleet operators.

See losrios.edu/gainful-emp-info/gedt.php?major=011037C01 for Gainful Employment Disclosure.

<table>
<thead>
<tr>
<th>Requirements for Degree or Certificate</th>
<th>52 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100 Technical Basics for the Automotive Professional</td>
<td>3</td>
</tr>
<tr>
<td>AT 105 Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 110 Automotive Brakes</td>
<td>3</td>
</tr>
<tr>
<td>AT 130 Manual Drive Trains and Axles</td>
<td>3</td>
</tr>
<tr>
<td>AT 140 Advanced Automotive Skill and Speed Development</td>
<td>3</td>
</tr>
<tr>
<td>AT 160 Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 310 Heating and Air-Conditioning Systems</td>
<td>3</td>
</tr>
<tr>
<td>AT 311 Suspension and Steering Systems</td>
<td>3</td>
</tr>
<tr>
<td>AT 313 Automatic Transmission and Transaxles</td>
<td>3</td>
</tr>
<tr>
<td>AT 314 Automotive Engine Repair</td>
<td>3</td>
</tr>
<tr>
<td>AT 330 Automotive Electrical Systems</td>
<td>6</td>
</tr>
<tr>
<td>AT 331 Advanced Automotive Electrical Systems</td>
<td>6</td>
</tr>
<tr>
<td>AT 332 Engine Performance &amp; Electronic Engine Controls</td>
<td>6</td>
</tr>
<tr>
<td>AT 333 California State Smog Check Inspector Training</td>
<td>6</td>
</tr>
</tbody>
</table>

A minimum of 1 unit from the following:

| AT 298 Work Experience in Automotive Technology (1 - 4) | 1 |

**Associate Degree Requirements:** The Automotive Component Service Technician Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See 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 EPA guidelines for handling and use of hazardous material found in a automotive shop.
- demonstrate safe work practices in the auto shop.

**Requirements for Degree or Certificate**

<table>
<thead>
<tr>
<th>Requirements for Degree or Certificate</th>
<th>40 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100 Technical Basics for the Automotive Professional</td>
<td>3</td>
</tr>
<tr>
<td>AT 105 Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 180 Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 181 Snap-On Multimeter Basics</td>
<td>1</td>
</tr>
<tr>
<td>AT 186 Snap-On MODIS – Automotive Diagnostic Use and Operation</td>
<td>2</td>
</tr>
<tr>
<td>AT 188 Snap-On SOLUS – Automotive Diagnostic Use and Operation</td>
<td>1</td>
</tr>
<tr>
<td>AT 189 Snap-On VERUS – Automotive Diagnostic Use and Operation</td>
<td>2</td>
</tr>
<tr>
<td>AT 330 Automotive Electrical Systems</td>
<td>6</td>
</tr>
<tr>
<td>AT 331 Advanced Automotive Electrical Systems</td>
<td>6</td>
</tr>
<tr>
<td>AT 332 Engine Performance &amp; Electronic Engine Controls</td>
<td>6</td>
</tr>
<tr>
<td>AT 333 California State Smog Check Inspector Training</td>
<td>6</td>
</tr>
</tbody>
</table>

A minimum of 1 unit from the following:

| AT 298 Work Experience in Automotive Technology (1 - 4) | 1 |

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

- analyze and repair fuel injection systems to ASE standards.
- analyze, diagnose, and repair engines to ASE performance level.
- diagnose, troubleshoot, and repair basic air conditioning (AC) systems.
- analyze, diagnose, and repair major automotive components.

**Requirements for Degree or Certificate**

<table>
<thead>
<tr>
<th>Requirements for Degree or Certificate</th>
<th>37 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100 Technical Basics for the Automotive Professional</td>
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<tr>
<td>AT 105 Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 110 Automotive Brakes</td>
<td>3</td>
</tr>
<tr>
<td>AT 130 Manual Drive Trains and Axles</td>
<td>3</td>
</tr>
<tr>
<td>AT 140 Advanced Automotive Skill and Speed Development</td>
<td>3</td>
</tr>
<tr>
<td>AT 160 Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 310 Heating and Air-Conditioning Systems</td>
<td>3</td>
</tr>
<tr>
<td>AT 311 Suspension and Steering Systems</td>
<td>3</td>
</tr>
<tr>
<td>AT 313 Automatic Transmission and Transaxles</td>
<td>3</td>
</tr>
<tr>
<td>AT 314 Automotive Engine Repair</td>
<td>3</td>
</tr>
<tr>
<td>AT 330 Automotive Electrical Systems</td>
<td>6</td>
</tr>
</tbody>
</table>

A minimum of 1 unit from the following:

| AT 298 Work Experience in Automotive Technology (1 - 4) | 1 |

**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/systems, 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.
- analyze, diagnose, and repair repair systems.
- diagnose, troubleshoot, and repair repair systems.
- 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 Care technician tests.

See losrios.edu/gainful-emp-info/gedt.php?major=011269C01 for Gainful Employment Disclosure.
Air Conditioning Service Certificate
Major Code: 011315C01
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.

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 EPA guidelines for the handling and use of refrigerants.

See losrios.edu/gainful-emp-info/gedt.php?major=011315C01 for Gainful Employment Disclosure.

Requirements for Certificate  18 Units
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 330  Automotive Electrical Systems .................................................6

Alternative Fuels and Green Vehicle Technology Certificate
Major Code: 011036C01
This certificate covers the various technologies used in the alternative fuels vehicles of today. Topics include biodiesel production, hybrid electric vehicles, and fuel cell technology.

Student Learning Outcomes
Upon completion of this program, the student will be able to:

- perform basic automotive services 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.
- perform high voltage system disable procedures on hybrid electric vehicles.

Career Opportunities
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.

Requirements for Certificate  27 Units
AT 100  Technical Basics for the Automotive Professional ..................3
AT 307  Biodiesel Technology .................................................................4
AT 309  Introduction to Hybrid and Electric Vehicle Technology ...............4
AT 330  Automotive Electrical Systems .................................................6
AT 331  Advanced Automotive Electrical Systems ..................................6
AT 316  Alternative Fuels and Advanced Technology Vehicles ..................4

Automotive Emissions Inspection and Repair Technician Certificate
Major Code: 011272C01
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).

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 Opportunities
- California State Smog Inspector
- California State Smog Repair Technician

Requirements for Certificate  40 Units
AT 100  Technical Basics for the Automotive Professional ..................3
AT 105  Mathematics for Automotive Technology .................................3
AT 180  Automotive Data Acquisition ..................................................3
AT 314  Automotive Engine Repair .......................................................3
AT 330  Automotive Electrical Systems .................................................6
AT 331  Advanced Automotive Electrical Systems ..................................6
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

Extreme Tuner Certificate
Major Code: 011482C01
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.

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.

(continued on next page)
Extreme Tuner Certificate continued

- 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 Opportunities
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.

Requirements for Certificate
AT 100  Technical Basics for the Automotive Professional ........................................3
AT 101  Automotive Brakes ..................................................................................3
AT 102  Manual Drive Trains and Axles ................................................................3
AT 103  Suspension and Steering Systems ............................................................3
AT 104  Automotive Engine Repair ......................................................................3
AT 105  Alternative Fuels and Advanced Technology Vehicles .........................4
AT 106  Engine Performance Testing & Tuning ......................................................4
AT 107  Introduction to Motorsports ....................................................................4
AT 108  Automotive Electrical Systems ................................................................6

Parts and Service Certificate
Major Code: 011504C01

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.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
- apply established procedures in the automotive industry.
- ensure the satisfactory resolution of service-related customer issues.
- create a service work including dispatching and invoicing.

Career Opportunities
Various entry level positions in the automotive parts and service industry, such as service writers and parts specialists.

See losrios.edu/gainful-emp-info/gedt.php?major=011504C01 for Gainful Employment Disclosure.

Requirements for Certificate
AT 100  Technical Basics for the Automotive Professional ........................................3
AT 102  Manual Drive Trains and Axles ................................................................3
AT 103  Suspension and Steering Systems ............................................................3
AT 104  Automotive Engine Repair ......................................................................3
AT 105  Alternative Fuels and Advanced Technology Vehicles .........................4
AT 106  Engine Performance Testing & Tuning ......................................................4
AT 107  Introduction to Motorsports ....................................................................4
AT 108  Automotive Electrical Systems ................................................................6

Transmission Service Certificate
Major Code: 011316C01

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.

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 on-line and computer based 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 Opportunities
Entry-level positions in automatic transmission, clutch, and drive-train repair.

See losrios.edu/gainful-emp-info/gedt.php?major=011316C01 for Gainful Employment Disclosure.
### Requirements for Certificate 27 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>3</td>
</tr>
<tr>
<td>AT 105</td>
<td>Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 130</td>
<td>Manual Drive Trains and Axles</td>
<td>3</td>
</tr>
<tr>
<td>AT 140</td>
<td>Advanced Automotive Skill and Speed Development</td>
<td>3</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td>3</td>
</tr>
<tr>
<td>AT 330</td>
<td>Automotive Electrical Systems</td>
<td>6</td>
</tr>
<tr>
<td>AT 313</td>
<td>Automotive Transmission and Transaxles</td>
<td>3</td>
</tr>
<tr>
<td>AT 317</td>
<td>Advanced Drive Train</td>
<td>3</td>
</tr>
<tr>
<td>AT 319</td>
<td>Advanced Drivetrain</td>
<td>3</td>
</tr>
<tr>
<td>AT 298</td>
<td>Work Experience in Automotive Technology (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>

### Undercar Service Certificate

**Major Code: 011305C01**

The Undercar Service certificate provides entry-level training to perform repairs in automotive suspension, brake and exhaust service facilities.

#### 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 Opportunities

This certificate provides students with knowledge for entry-level careers in the automotive suspension, brake and exhaust repair facilities.

See losrios.edu/gainful-emp-info/gedt.php?major=011305C01 for Gainful Employment Disclosure.

### Requirements for Certificate 18 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>3</td>
</tr>
<tr>
<td>AT 106</td>
<td>Automotive Shop Operations</td>
<td>2</td>
</tr>
<tr>
<td>AT 110</td>
<td>Automotive Brakes</td>
<td>3</td>
</tr>
<tr>
<td>AT 145</td>
<td>Automotive Exhaust System</td>
<td>3</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td></td>
</tr>
<tr>
<td>AT 314</td>
<td>Advanced Automotive Skill and Speed Development</td>
<td>1</td>
</tr>
<tr>
<td>AT 298</td>
<td>Work Experience in Automotive Technology (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>

### DEPARTMENT CERTIFICATES

#### Small Engines Certificate

**Major Code: 011034C01**

This certificate prepares students for employment in the automotive industry, specializing in small engines.

#### 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 Opportunities

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.

### Requirements for Certificate 11 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>3</td>
</tr>
<tr>
<td>AT 110</td>
<td>Automotive Brakes</td>
<td>3</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 181</td>
<td>Snap-On Multimeter Basics</td>
<td>3</td>
</tr>
<tr>
<td>AT 301</td>
<td>Small Gas Engines, Outdoor Power Equipment (4)</td>
<td>1</td>
</tr>
<tr>
<td>or HORT 330</td>
<td>Small Gas Engines, Outdoor Power Equipment (4)</td>
<td></td>
</tr>
<tr>
<td>AT 140</td>
<td>Advanced Automotive Skill and Speed Development</td>
<td>1</td>
</tr>
<tr>
<td>AT 298</td>
<td>Work Experience in Automotive Technology (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>

### Automotive Brakes Certificate

**Major Code: 011029C01**

This certificate prepares students for employment in the automotive industry, specializing in brakes.

#### 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 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 Opportunities

The automotive brakes industry is growing and in need of technicians.

### Requirements for Certificate 12 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>3</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 181</td>
<td>Snap-On Multimeter Basics</td>
<td>1</td>
</tr>
<tr>
<td>AT 301</td>
<td>Small Gas Engines, Outdoor Power Equipment (4)</td>
<td>1</td>
</tr>
<tr>
<td>or HORT 330</td>
<td>Small Gas Engines, Outdoor Power Equipment (4)</td>
<td></td>
</tr>
<tr>
<td>AT 140</td>
<td>Advanced Automotive Skill and Speed Development</td>
<td>1</td>
</tr>
<tr>
<td>AT 298</td>
<td>Work Experience in Automotive Technology (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>
Automotive Suspension and Steering Certificate

Major Code: 011033C01

This certificate prepares students for employment in the automotive industry, specializing in suspension and steering.

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 to service manual procedures.
- determine the need for and perform four-wheel alignments.
- diagnose any malfunction of the steering suspension components used on automobiles.

Career Opportunities

The automotive suspension and steering industry is growing and in need of technicians.

Requirements for Certificate 11 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>3</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 181</td>
<td>Snap-On Multimeter Basics</td>
<td>1</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of 1 unit from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AT 140</td>
<td>Advanced Automotive Skill and Speed Development (3)</td>
<td></td>
</tr>
<tr>
<td>AT 298</td>
<td>Work Experience in Automotive Technology (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>

AT 100 Technical Basics for the Automotive Professional 3 Units

Hours: 26 hours LEC; 84 hours LAB

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 105 Mathematics for Automotive Technology 3 Units

Corequisite: AT 100
General Education: AA/AS Area II(b)
Hours: 54 hours LEC

This course covers mathematics relative to the automotive trades. Course topics include the metric system, fraction, 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 2 Units

Hours: 36 hours LEC

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 2 Units

Same As: ET 250 and WELD 150
Advisory: ENGW 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320, ESLL 320, and ESLW 320 with a grade of “C” or better.
General Education: AA/AS Area III(b)
Hours: 36 hours LEC

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 ET 250 or WELD 150.

AT 108 Successful Automobile Selling Skills 1.5 Units

Hours: 27 hours LEC

This course covers successful automobile sales techniques. Topics include the process of selling cars, from greeting the consumer to closing the sale. It also covers understanding today’s information age consumer.

AT 110 Automotive Brakes 3 Units

Corequisite: AT 100 and 180
Advisory: AT 181 and 188
Hours: 26 hours LEC; 84 hours LAB

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 3 Units

Corequisite: AT 100 and 180
Advisory: AT 181 and 188
Hours: 26 hours LEC; 84 hours LAB

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 3 Units

Corequisite: AT 100
Advisory: AT 110, 130, 311, and 314
Hours: 22.5 hours LEC; 94.5 hours LAB

This course covers automotive component diagnosis and repair, including brakes, suspension, heating and air-conditioning, engine, transmissions, and other areas in preparation for competing in the regional, state, and national Skills USA competition. This course may be taken up to four times with different competitions.

AT 143 Automotive Parts 3 Units

Corequisite: AT 100
Hours: 45 hours LEC; 27 hours LAB

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 3 Units
Prerequisite: AT 100 with a grade of "C" or better
Hours: 26 hours LEC; 84 hours LAB
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 3 Units
Corequisite: AT 180
Advisory: AT 100
Hours: 45 hours LEC; 27 hours LAB
This course introduces the basic requirements needed to perform the duties of an automotive service consultant. 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 4 Units
Advisory: AT 314
Hours: 54 hours LEC; 54 hours LAB
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 4 Units
Advisory: AT 156 and 330
Hours: 54 hours LEC; 54 hours LAB
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 177 Bureau of Automotive Repair (BAR) Emissions Update UT032 1 Unit
Advisory: AT 332 with a grade of "C" or better
Hours: 18 hours LEC
This course improves technicians’ abilities to diagnose and repair emissions failures on complex computer-controlled vehicles.

AT 180 Automotive Data Acquisition 3 Units
Hours: 54 hours LEC
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 Snap-On Multimeter Basics 1 Unit
Hours: 18 hours LEC; 9 hours LAB
This course explores the functionality and capability of the digital multimeter to improve technicians’ diagnostic expertise when working with electrical related problems and prepares them for the Snap-on certification.

AT 182 General Motors Diagnostic Tools 2 Units
Hours: 27 hours LEC; 27 hours LAB
This course explores the functionality and capability of General Motors diagnostic tools to improve technicians’ expertise when working with On-Board computer-related problems.

AT 184 Toyota Techstream – Automotive Diagnostic Use and Operation 2 Units
Hours: 27 hours LEC; 27 hours LAB
This course explores the functionality and capability of Toyota’s Techstream to improve technicians’ diagnostic expertise when working with On-Board computer-related problems.

AT 186 Snap-On MODIS – Automotive Diagnostic Use and Operation 2 Units
Hours: 27 hours LEC; 27 hours LAB
This course explores the functionality and capability of Snap-On’s MODIS (Modular Diagnostic Information System) to improve the technician’s diagnostic expertise when working with On-Board computer related problems.

AT 188 Snap-On SOLUS – Automotive Diagnostic Use and Operation 1 Unit
Hours: 18 hours LEC; 9 hours LAB
This course explores the functionality and capability of Snap-On’s SOLUS to improve the technician’s diagnostic expertise when working with On-Board computer-related problems.

AT 189 Snap-On VERUS - Automotive Diagnostic Use and Operation 2 Units
Hours: 27 hours LEC; 27 hours LAB
This course explores the functionality and capability of Snap-On’s VERUS to improve technicians’ diagnostic expertise when working with on-board computer-related problems.

AT 190 Advanced Student Projects 2 Units
Prerequisite: AT 100 with a grade of "C" or better
Hours: 108 hours LAB
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 3 Units
Corequisite: AT 330 or ET 302
Hours: 36 hours LEC; 54 hours LAB
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. This course is not open to students who have taken ET 251. Field trips are required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite/Advisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 295</td>
<td>Independent Studies in Automotive Technology</td>
<td>1-3 Units</td>
<td>Prerequisite: None</td>
</tr>
<tr>
<td>AT 298</td>
<td>Work Experience in Automotive Technology</td>
<td>1-4 Units</td>
<td>Advisory: AT 100; and eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.</td>
</tr>
<tr>
<td>AT 301</td>
<td>Small Gas Engines, Outdoor Power Equipment</td>
<td>4 Units</td>
<td>Same As: HORT 330</td>
</tr>
<tr>
<td>AT 307</td>
<td>Biodiesel Technology</td>
<td>4 Units</td>
<td>Corequisite: AT 100 or 150</td>
</tr>
<tr>
<td>AT 309</td>
<td>Introduction to Hybrid and Electric Vehicle Technology</td>
<td>4 Units</td>
<td>Prerequisite: AT 315 with a grade of &quot;C&quot; or better</td>
</tr>
<tr>
<td>AT 310</td>
<td>Heating and Air-Conditioning Systems</td>
<td>3 Units</td>
<td>Corequisite: AT 310; and eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td>3 Units</td>
<td>Corequisite: AT 310; and eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.</td>
</tr>
<tr>
<td>AT 313</td>
<td>Automatic Transmission and Transaxles</td>
<td>3 Units</td>
<td>Corequisite: AT 310; and eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.</td>
</tr>
<tr>
<td>AT 314</td>
<td>Automotive Engine Repair</td>
<td>3 Units</td>
<td>Corequisite: AT 310; and eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.</td>
</tr>
<tr>
<td>AT 316</td>
<td>Alternative Fuels and Advanced Technology Vehicles</td>
<td>4 Units</td>
<td>Corequisite: AT 310; and eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.</td>
</tr>
</tbody>
</table>

**Hours:**
- Independent Study: 54-162 hours LAB
- Work Experience: 60-300 hours LAB
- Small Gas Engines: 54 hours LEC; 54 hours LAB
- Biodiesel Technology: 54 hours LEC; 54 hours LAB
- Introduction to Hybrid and Electric Vehicle: 54 hours LEC; 54 hours LAB
- Heating and Air-Conditioning: 26 hours LEC; 84 hours LAB
- Suspension and Steering: 26 hours LEC; 84 hours LAB
- Automatic Transmission and Transaxles: 26 hours LEC; 84 hours LAB
- Automotive Engine Repair: 26 hours LEC; 84 hours LAB
- Alternative Fuels and Advanced Technology: 54 hours LEC; 54 hours LAB
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 3 Units
Prerequisite: AT 313 with a grade of “C” or better
Course Transferable to CSU
Hours: 26 hours LEC; 84 hours LAB
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 4 Units
Prerequisite: AT 301, 316, and 333 with grades of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course explores the performance and efficiency of modern vehicle engine systems through the use of engine dynamoseters 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 4 Units
Prerequisite: AT 110, 130, and 311 with grades of “C” or better
Advisory: AT 325, 330, and 333
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
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 6 Units
Corequisite: AT 100, 105, and 180
Course Transferable to CSU
Hours: 81 hours LEC; 81 hours LAB
This course covers the principles, operation, and diagnosis of automotive electrical systems including fundamentals of electricity (DC), electrical circuits, battery operation, fundamentals of magnetism, charging systems, starting systems, and electrical schematics. Along with completion of AT 331, this course meets Automotive Service Excellence (ASE) certification standards for the A6 Electrical Systems certification.

AT 331 Advanced Automotive Electrical Systems 6 Units
Prerequisite: AT 180 and 330 with grades of “C” or better
Advisory: AT 110 and 310
Course Transferable to CSU
Hours: 81 hours LEC; 81 hours LAB
This course covers the principles of advanced electrical diagnostics. Topics include automotive computers, vehicle networks, driver information systems and accessories, supplemental restraint systems, antilock brakes, tire pressure monitoring systems, and climate control. Along with completion of AT 330, this course meets Automotive Service Excellence (ASE) certification standards for the A6 Electrical Systems certification.

AT 332 Engine Performance & Electronic Engine Controls 6 Units
Prerequisite: AT 331 and AT 333 with grades of “C” or better
Course Transferable to CSU
Hours: 81 hours LEC; 81 hours LAB
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 6 Units
Prerequisite: AT 314 with a grade of “C” or better
Course Transferable to CSU
Hours: 81 hours LEC; 81 hours LAB
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 4 Units
Course Transferable to CSU
Hours: 72 hours LEC
State law currently requires that applicants for a Smog Check Repair license possesses 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 495 Independent Studies in Automotive Technology 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
Biologyists 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

Biology A.S. for Transfer Degree

Major Code, IGETC: 011095A01
Major Code, IGETC: 011095A02

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

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.

Requirements for Degree 32-39 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 400</td>
<td>Principles of Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 415</td>
<td>Introduction to Biology: Biodiversity, Evolution, and Ecology (5)</td>
<td>5 - 10</td>
</tr>
<tr>
<td>or [ BIOL 410 Principles of Botany (5) and BIOL 420 Principles of Zoology (5)]</td>
<td>5</td>
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</tr>
<tr>
<td>CHEM 400</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 401</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 350</td>
<td>Calculus for Biology and Medicine I (4)</td>
<td>4 - 5</td>
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<tr>
<td>or MATH 360 Calculus I (5) and PHYS 350 General Physics (4)</td>
<td>8 - 9</td>
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<tr>
<td>and PHYS 421 Electricity and Magnetism (4)</td>
<td>4</td>
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</tr>
</tbody>
</table>

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

Biotechnology Degree

Major Code: 011517A01

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.

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 Opportunities
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.

Requirements for Degree 29-35 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 400</td>
<td>Principles of Biology (5)</td>
<td>4 - 5</td>
</tr>
<tr>
<td>or BIOL 440</td>
<td>General Microbiology (4)</td>
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<tr>
<td>or BIOL 442</td>
<td>General Microbiology and Public Health (5)</td>
<td></td>
</tr>
<tr>
<td>BIOT 301</td>
<td>Biotechnology and Human Health</td>
<td>3</td>
</tr>
<tr>
<td>BIOT 307</td>
<td>Biotechnology and Society</td>
<td>2</td>
</tr>
<tr>
<td>BIOT 311</td>
<td>Biotechnology Laboratory Methods - Molecular Techniques</td>
<td>2</td>
</tr>
<tr>
<td>BIOT 312</td>
<td>Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques</td>
<td>2</td>
</tr>
<tr>
<td>or CHEM 305</td>
<td>Introduction to Chemistry (5)</td>
<td>5 - 10</td>
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<tr>
<td>and CHEM 306</td>
<td>Introduction to Chemistry (5)</td>
<td></td>
</tr>
<tr>
<td>or CHEM 309</td>
<td>Integrated General, Organic, and Biological Chemistry (5)</td>
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<tr>
<td>or CHEM 400</td>
<td>General Chemistry I (5)</td>
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<tr>
<td>and CHEM 401</td>
<td>General Chemistry II (5)</td>
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<tr>
<td>ENGR 300</td>
<td>College Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 301</td>
<td>College Composition and Literature (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 302</td>
<td>Advanced Composition and Critical Thinking (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 300</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
</tr>
<tr>
<td>and a minimum of 1 unit from the following:</td>
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<td></td>
</tr>
<tr>
<td>BIOT 498</td>
<td>Work Experience in Biotechnology (1 - 4)</td>
<td></td>
</tr>
<tr>
<td>or BIOT 305</td>
<td>Introduction to Bioinformatics (1)</td>
<td></td>
</tr>
</tbody>
</table>

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

Biotechnology Certificate
Major Code: 011416C01

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.

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 Opportunities
This program 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.

See losrios.edu/gainful-emp-info/gedt.php?major=011416C01 for Gainful Employment Disclosure.

Requirements for Certificate 24-26 Units

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>BIOL 303</td>
<td>Survey of Biology (4)</td>
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<td>or BIOL 310</td>
<td>General Biology (4)</td>
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<tr>
<td>or BIOL 400</td>
<td>Principles of Biology (5)</td>
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<tr>
<td>or BIOL 440</td>
<td>General Microbiology (4)</td>
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<td>BIOT 301</td>
<td>Biotechnology and Human Health</td>
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<tr>
<td>BIOT 311</td>
<td>Biotechnology Laboratory Methods - Molecular Techniques</td>
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</tr>
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<td>BIOT 312</td>
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</tr>
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<td>or ENGR 302</td>
<td>Advanced Composition and Critical Thinking (3)</td>
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<tr>
<td>MATH 120</td>
<td>Intermediate Algebra</td>
<td>3</td>
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<tr>
<td>STAT 300</td>
<td>Introduction to Probability and Statistics</td>
<td>4 - 5</td>
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<tr>
<td>and a minimum of 1 unit from the following:</td>
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<td></td>
</tr>
<tr>
<td>BIOT 305</td>
<td>Introduction to Bioinformatics (1)</td>
<td></td>
</tr>
<tr>
<td>or BIOT 307</td>
<td>Biotechnology and Society (2)</td>
<td></td>
</tr>
<tr>
<td>or BIOT 498</td>
<td>Work Experience in Biotechnology (1 - 4)</td>
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</tbody>
</table>

General Science Degree
Major Code: 011229A01

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.

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 making in scientific endeavors.
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American River College Catalog 2019-2020

BIOLOGY & BIOTECHNOLOGY

Requirements for Degree 18 Units

A minimum of 18 units from the following: 18 units

Physical Science Courses:
- ASTR 300, 310, 320, 330, 400, 481, 495, 499
- CHEM 305, 306, 309, 310, 400, 401, 420, 421, 423, 495, 499
- GEOG 300, 301, 305, 306, 307, 308, 309, 391, 392, 393, 394, 495, 499
- GEOL 300, 301, 305, 306, 310, 311, 320, 325, 330, 331, 345, 390, 495, 499
- PHYS 310, 311, 312, 350, 360, 410, 421, 431, 495, 499
- PS 300, 301, 495, 499

Biological Science Courses:
- ANTH 300, 301, 303, 307, 372, 480, 495, 499
- BIOL 300, 301, 303, 305, 310, 322, 332, 342, 352, 370, 375, 390, 400, 410, 415, 420, 430, 431, 440, 442, 482, 495, 499
- BIOT 301, 305, 307, 311, 312, 499
- NATR 300, 302, 303, 304, 305, 306, 307, 310, 320, 322, 324, 330, 332, 346, 495, 499
- PSYC 310, 311, 495, 499

1must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

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

Biology

BIOL 102 Essentials of Human Anatomy and Physiology 4 Units

General Education: AA/AS Area IV
Hours: 54 hours LEC; 54 hours LAB

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 meets the minimum science requirements for Paramedic, Healthcare Interpreting, Gerontology, Health Care, and Funeral Service programs.

BIOL 103 Human Anatomy for Funeral Services 4 Units

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.
General Education: AA/AS Area IV
Hours: 54 hours LEC; 54 hours LAB

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 Services 3 Units

Prerequisite: CHEM 130 with a grade of “C” or better
Corequisite: FSE 312, 330, and 340
Advisory: BIOL 300 with a grade of “C” or better
Hours: 54 hours LEC

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 1-3 Units

Prerequisite: None
Hours: 54-162 hours LAB

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 300 The Foundations of Biology 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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 development biology and systematics.

BIOL 303 Survey of Biology 4 Units

Advisory: MATH 100 or 132 with a grade of “C” or better
General Education: AAAS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB

This course covers the basic principles of cell biology, genetics (transmission and molecular), ecology, and evolution. It also emphasizes the process of science, interrelationships among living organisms, and the relationship of biological structures and functions. Laboratory activities include plant and animal dissection. This course provides science preparation for those entering a Multiple Subject Teacher Credential Program. Field trips are required.
**BIOL 305 Natural History** 4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGR 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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** 4 Units
Advisory: MATH 32, MATH 42, or STAT 105 with a grade of “C” or better; and eligible for ENGRD 310 or ENGRD 312 AND ENGR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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** 3 Units
General Education: AA/AS Area VI
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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** 4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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 are required.

**BIOL 342 The New Plagues: New and Ancient Infectious Diseases Threatening World Health** 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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** 3 Units
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. This course 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** 4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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** 3 Units
Advisory: MATH 32, MATH 42, or STAT 105 with a grade of “C” or better; and eligible for ENGRD 310 or ENGRD 312 AND ENGR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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  .5-4 Units

Course Transferable to CSU

Hours: 3-24 hours LEC; 18-144 hours LAB

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  5 Units

Prerequisite: CHEM 400 with a grade of "C" or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB

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. (C-ID BIOL 190)

BIOL 410  Principles of Botany  5 Units

Prerequisite: BIOL 400 with a grade of "C" or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESR 340 AND ESRW 340.
General Education: CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB

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. (C-ID BIOL 15; Part of C-ID BIOL 130S)

BIOL 415  Introduction to Biology: Biodiversity, Evolution, and Ecology  5 Units

Prerequisite: BIOL 400 with a grade of "C" or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESR 340 AND ESRW 340.
General Education: CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB

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. (C-ID BIOL 140)

BIOL 420  Principles of Zoology  5 Units

Prerequisite: BIOL 400 with a grade of "C" or better
General Education: CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB

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. (C-ID BIOL 15; Part of C-ID BIOL 130S)

BIOL 430  Anatomy and Physiology  5 Units

Prerequisite: CHEM 305, 309, or 400 with a grade of "C" or better; AND ENGWR 310 or ENGWR 312 AND ESR 340
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB

This lecture and laboratory course in human anatomy and physiology emphasizes the integration of structure and function. The underlying basis of the course is built on the study of anatomical terminology, cells, and tissues. The course expands this study into the integumentary, skeletal, muscular, and nervous systems. Laboratory study is enhanced by the microscopic study of tissues, examination of anatomical models, and the dissection of preserved material. Laboratory study is also enhanced by the examination of dissected whole cadavers as well as dissected 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. (Part of C-ID BIOL 115S)

BIOL 431  Anatomy and Physiology  5 Units

Prerequisite: BIOL 430 with a grade of "C" or better
Advisory: Eligible for ENGRD 310 or ENGRD 312; OR ESR 340
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB

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 dissected 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. (Part of C-ID BIOL 115S)
**Biology & Biotechnology**

**Biol 440 General Microbiology 4 Units**  
Prerequisite: CHEM 305, 309, or 400 with a grade of “C” or better  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340; AND BIOL 300 or CHEM 306 with a grade of “C” or better.  
General Education: CSU Area B2; CSU Area B3; IGETC Area 5B; IGTC Area 5C  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 72 hours LAB  
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 5 Units**  
Prerequisite: CHEM 306, CHEM 309, or CHEM 400 with a grade of “C” or better; OR CHEM 305 with a grade of “C” or better and one of the following: BIOL 300, BIOL 303, or BIOL 310 with a grade of “C” or better.  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340 with a grade of “C” or better.  
General Education: CSU Area B2; CSU Area B3; IGTC Area 5B; IGTC Area 5C  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 108 hours LAB  
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 4 Units**  
Prerequisite: Placement into ENGW 480 through the assessment process.  
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGTC Area 5B; IGTC Area 5C  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 54 hours LAB  
This course is an honors level introduction to marine biology. Using a seminar style, it explores physical oceanography, marine algae, marine vertebrate and invertebrate animals, and the ecology of various marine zones. Field trips focusing on inter-tidal organisms of the Central and Northern California Coast are required. A portion of this course may be offered in a TBA component of 54 hours which may include but is not limited to designing and conducting experiments in the rocky intertidal, intervertebrate 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 490 Science Skills and Applications .5 Units**  
Corequisite: Current enrollment in a science, nutrition or nursing course.  
Course Transferable to CSU  
Hours: 27 hours LAB  
This course offers individualized instructional modules designed to acquire or improve reading skills in the various science classes and in the nursing program. A partial list of skills may include the following: textbook comprehension, principles of learning and retention, note taking, annotating, discipline-based vocabulary, paraphrasing, reading graphics, test taking, and problem solving. This course is offered in a flexible TBA format of 27 laboratory hours in order to accommodate the student’s schedule. Registration is open through the tenth week of the semester. Pass/No Pass only.

**Biol 495 Independent Studies in Biology 1-3 Units**  
Course Transferable to CSU  
Hours: 54-162 hours LAB  
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.

**Biotechnology**

**Biot 301 Biotechnology and Human Health 3 Units**  
Prerequisite: BIOL 303, BIOL 310, BIOL 400, BIOL 440, BIOL 442, or BIOL 307 with a grade of “C” or better.  
Course Transferable to CSU  
Hours: 54 hours LEC  
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 1 Unit**  
Prerequisite: BIOL 303, BIOL 310, BIOL 400, BIOL 440, BIOL 442, BIOL 301, or BIOL 307 with a grade of “C” or better.  
Course Transferable to CSU  
Hours: 14 hours LEC; 14 hours LAB  
This course examines the basic concepts and techniques in bioinformatics, the computer analysis of nucleic acids and proteins. Topics include bioinformatics databases, database searching, structure and function analysis of biological molecules, sequence alignment and analysis, and biological applications of bioinformatics.

**Biot 307 Biotechnology and Society 2 Units**  
Course Transferable to UC/CSU  
Hours: 36 hours LEC  
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 2 Units**  
Prerequisite: BIOL 300, BIOL 303, BIOL 310, BIOL 400, BIOL 440, BIOL 442, or BIOL 307 with a grade of “C” or better.  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB  
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  2 Units
Prerequisite: BIOL 300, BIOL 303, BIOL 310, BIOL 400, BIOL 440, BIOL 442, or BIOT 307 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
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  1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to biotechnology with a cooperating site supervisor. Students are advised to consult with the Biotechnology Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
DEGREES AND CERTIFICATES

Business Administration
A.S. for Transfer Degree

Major Code, CSU GE: 010205A01
Major Code, IGETC: 010205A02

This Associate in Science in Business Administration provides students with a major that fulfills the general requirements for transfer to the California State University. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Science in Business for Transfer (A.S.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements. Students should work closely with their ARC counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Business at the four year college they wish to transfer to.

Career Opportunities
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.

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.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUS 340</td>
<td>3</td>
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<tr>
<td>BUS 311</td>
<td>4</td>
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<tr>
<td>BUS 301</td>
<td>3</td>
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<tr>
<td>BUS 315</td>
<td>3</td>
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<tr>
<td>ECON 302</td>
<td>3</td>
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<tr>
<td>ECON 304</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
<td></td>
</tr>
<tr>
<td>MATH 340</td>
<td>Calculus for Business and Economics (3)</td>
</tr>
<tr>
<td>STAT 300</td>
<td>Introduction to Probability and Statistics (4)</td>
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<tr>
<td>BUS 300</td>
<td>3</td>
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<tr>
<td>CISA 305</td>
<td>3</td>
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<tr>
<td>CISA 308</td>
<td>3</td>
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<tr>
<td>CISA 305</td>
<td>3</td>
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<tr>
<td>CISA 315</td>
<td>3</td>
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<tr>
<td>CISA 316</td>
<td>3</td>
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<tr>
<td>CISA 318</td>
<td>3</td>
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<td>CISA 340</td>
<td>3</td>
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<td>CISC 305</td>
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<td>CISC 306</td>
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<td>CISC 308</td>
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<td>CISC 310</td>
<td>3</td>
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<tr>
<td>CISC 320</td>
<td>3</td>
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<tr>
<td>A minimum of 5 units from the following:</td>
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<tr>
<td>BUS 330</td>
<td>3</td>
</tr>
<tr>
<td>CISA 315</td>
<td>3</td>
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<tr>
<td>CISA 316</td>
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<tr>
<td>CISA 318</td>
<td>3</td>
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<tr>
<td>CISA 340</td>
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<td>CISC 305</td>
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<td>CISC 306</td>
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<td>CISC 307</td>
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<td>CISC 308</td>
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<td>CISC 310</td>
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<tr>
<td>CISC 320</td>
<td>3</td>
</tr>
</tbody>
</table>

Students can also select one of the following courses if not already used: MATH 340, STAT 300.

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

General Business Degree

Major Code: 011046A01

This degree is designed to provide a strong foundation for those entering into a variety of business fields in the private and public sector. The program includes coursework that is essential for entry-level positions and enhances the knowledge base of those who are seeking career progression.

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.
• develop leadership skills and abilities that are effective in managing a multicultural workforce.

(continued on next page)
(General Business Degree continued)

- 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 Opportunities**

Account executive, analyst, bank employee, buyer, clerk, data-entry clerk, data-entry specialist, entrepreneur, financial planner, government service, insurance representative, investment counselor, manager, marketing, market research, office assistant, public administration, purchasing agent, retail/industrial sales.

**Requirements for Degree** 32-35 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
<td>3 - 4</td>
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<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
<td></td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Business Economics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 302</td>
<td>Principles of Macroeconomics (3)</td>
<td></td>
</tr>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td></td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td></td>
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<tr>
<td>BUS 320</td>
<td>Concepts in Personal Finance</td>
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<tr>
<td>BUS 340</td>
<td>Business Law</td>
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</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing (2)</td>
<td>1-2</td>
</tr>
<tr>
<td>or CISA 308</td>
<td>Exploring Word Processing and Presentation Software (1)</td>
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<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
<td>1-2</td>
</tr>
<tr>
<td>or CISA 318</td>
<td>Exploring Spreadsheet Software (1)</td>
<td></td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 6 units from the following: 6*

*Work Experience (498) courses are limited to 3 units maximum towards degree requirements.

**Associate Degree Requirements:** The General Business Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

**General Business Certificate**

Major Code: 011046C01

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.

**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.

See losrios.edu/gainful-emp-info/gedt.php?major=011046C01 for Gainful Employment Disclosure.

**Requirements for Certificate** 24-25 Units

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
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</tr>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
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<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>CISA 300</td>
<td>Computer Familiarization</td>
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<tr>
<td>MGMT 304</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
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</table>

And a minimum of 5 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUS 210</td>
<td>The Business Plan</td>
<td>1</td>
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<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses (1)</td>
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<tr>
<td>BUS 214</td>
<td>Financing a Small Business</td>
<td></td>
</tr>
<tr>
<td>BUS 216</td>
<td>Essential Records for the Small Business (1)</td>
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<tr>
<td>BUS 218</td>
<td>Management Skills for the Small Business (1)</td>
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<tr>
<td>BUS 224</td>
<td>Customer Service</td>
<td>1</td>
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<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace (3)</td>
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<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship (3)</td>
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<tr>
<td>CISA 305</td>
<td>Beginning Word Processing (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
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<tr>
<td>CISA 320</td>
<td>Introduction to Database Management (1)</td>
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</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics (2)</td>
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</tr>
<tr>
<td>MGMT 362</td>
<td>Techniques of Management (3)</td>
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</tr>
</tbody>
</table>

**Small Business Management Degree**

Major Code: 011176A01

The Small Business Management 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.

**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.

**Requirements for Degree** 33-34 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
<td></td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Business Economics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 302</td>
<td>Principles of Macroeconomics (3)</td>
<td></td>
</tr>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 304</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 362</td>
<td>Techniques of Management (3)</td>
<td></td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 312</td>
<td>Retailing</td>
<td>3</td>
</tr>
</tbody>
</table>
And a minimum of 3 units from the following: 3
ACCT 341  Computerized Accounting (2)
ACCT 343  Computer Spreadsheet Applications for Accounting (2)
BUSTEC 305  Business Technology Essentials (1)
BUSTEC 310  Introduction to Word/Information Processing (3)
One or more Computer Information Science courses
And 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)
BUS 220  Retailing and Merchandising for the Small Business (1)
BUS 224  Customer Service (1)
BUS 228  Selling Techniques for the Small Business (1)

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

Small Business Management Certificate
Major Code: 011176C01
This certificate is designed for existing and potential entrepreneurs. It provides an organized course of study that enables students to develop their entrepreneurial skills, recognize opportunities, and learn the basics of starting and managing a small business.

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011176C01 for Gainful Employment Disclosure.

Requirements for Certificate 16 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 300  Computer Familiarization ................................ 1
And a minimum of 8 units from the following: 8
ACCT 121  Payroll Accounting (3)
ACCT 341  Computerized Accounting (2)
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 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)

Technical Communications Degree
Major Code: 011222A01
This is an interdisciplinary course of study designed to prepare students for employment as professional writers and communicators in a variety of media intended to instruct and inform audiences. The degree program includes substantial course work in writing, information design, editing, page design, online help development, web site creation, and the use of industry standard applications.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• analyze audience information needs and propose solutions to aid the audience.
• design technical communication solutions for a variety of industry and government purposes.
• design and create web sites and help systems with effective visual design, navigation, and written content.
• design and publish printed pages with effective design, organization, content, and indexing.
• compose professional prose for a variety of audiences with a variety of purposes.
• compose and edit professional documents in grammatically correct, concise English.
• create and use style templates in a variety of industry standard software.

Career Opportunities
Technical communicators may be employed in a variety of occupations in government, scientific firms, nonprofits, natural resources, finance, education, and high tech.

Requirements for Degree 36.5 Units
BUS 100  English for the Professional .................................. 3
CISA 305  Beginning Word Processing ............................ 2
CSW 300  Web Publishing .................................................. 3
JOUR 300  Newswriting and Reporting .............................. 3
TECCOM 300  Introduction to Technical/Professional Communication ............................................. 3
TECCOM 310  Technical/Professional Communication: Writing Reports .................................................. 3
TECCOM 320  Technical/Professional Communication: Proposal Writing ............................................. 3
TECCOM 330  Technical/Professional Communication: Writing Technical Manuals .................................. 3
TECCOM 340  Technical/Professional Communication: Developing Help Systems .................................. 1.5

And a minimum of 12 units from the following: 12
ARTNM 328  Beginning Digital Photo Imagery (3)
ARTNM 330  Intermediate Digital Photo Imagery (3)
ARTNM 352  Design for Publication (3)
CISA 331  Intermediate Desktop Publishing (2)
CSW 310  Advanced Web Publishing (4)
CSW 315  Advanced Web Designing using Dreamweaver (3)
CSW 400  Client-side Scripting (4)
CSW 410  Middleware Scripting (4)
ENGWR 301  College Composition and Literature (3)

Associate Degree Requirements: The Technical Communications Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Technical Communications Certificate
Major Code: 011222C01
The Technical Communications certificate offers an interdisciplinary program of courses in writing, 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.

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 printed pages and online screens that communicate organizations’ values, enhance readability, and are easy to use.
• demonstrate basic skills in the use of key word processing, page design, help development, and web design applications.
• evaluate organizations’ communication goals with technical writing ethics in mind.

Career Opportunities
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.

See losrios.edu/gainful-emp-info/gedt.php?major=011222C01 for Gainful Employment Disclosure.

Requirements for Certificate  21.5-22.5 Units
ARTNM 352  Design for Publication (3).................................................................3- 4
or CISA 330  Desktop Publishing (2)
and CISA 331  Intermediate Desktop Publishing (2)
CISA 305  Beginning Word Processing..............................................................2
CISA 300  Web Publishing ......................................................................................3
TECCOM 300  Introduction to Technical/Professional Communication............3
TECCOM 330  Technical/Professional Communication: Writing Technical Manuals 3
TECCOM 340  Technical/Professional Communication: Developing Help Systems 1.5

And a minimum of 6 units from the following: .................................................1.6
BUS 100  English for the Professional (3)
CISW 321  Web Site Development using Dreamweaver (3)
CISW 400  Client-side Web Scripting (4)
CISW 410  Middleware Web Scripting (4)
TECCOM 310  Technical/Professional Communication: Writing Reports (3)
TECCOM 320  Technical/Professional Communication: Proposal Writing (3)

Computer Applications for Small Business Certificate
Major Code: 011178C01
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.

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

Requirements for Certificate  16-17 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

Cross-Cultural Conflict Resolution Certificate
Major Code: 011171C01
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.

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.

Requirements for Certificate  12 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

Entrepreneurship Certificate
Major Code: 011045C01
This certificate is designed for existing and potential entrepreneurs. It provides an introductory and organized course of study that enables students to develop their entrepreneurial skills, recognize opportunities, and learn the basics of starting and managing a small business.
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

Requirements for Certificate  12 - 13 Units
ACCT 101  Fundamentals of College Accounting (3)................. 3 - 4
or ACCT 301  Financial Accounting (4)
BUS 340  Business Law................................................................. 3
BUS 350  Small Business Management/Entrepreneurship............. 3
MKT 300  Principles of Marketing.................................................. 3

General Business - Introduction Certificate
Major Code: 011047C01
This certificate provides an introductory 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.

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
- explain small business practices such as record-keeping, financing, marketing, and creating a business plan

Requirements for Certificate  12 - 13 Units
ACCT 101  Fundamentals of College Accounting (3).................... 3 - 4
or ACCT 301  Financial Accounting (4)
BUS 110  Business Economics ................................................. 3
BUS 105  English for the Professional ........................................ 3
BUS 100  Business Mathematics ................................................ 3
BUS 310  Business Communications ........................................ 3
CISA 330  Presentation Graphics ................................................ 2
CISA 340  Technical Marketing Applications ............................. 2
CISA 345  Internet Marketing ..................................................... 3
MKT 300  Principles of Marketing ............................................... 3

Internet Marketing Certificate
Major Code: 011320C01
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.

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 Opportunities
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.

Requirements for Certificate  14 Units
BUS 310  Business Communications ........................................ 3
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
MKT 330  Internet Marketing ..................................................... 3

Business

BUS 100  English for the Professional  3 Units
Prerequisite: ENGRD 56 or ENGRW 56; OR ENGRD 15 and ENGRW 50; OR ESR 310 and ESLW 310 with a grade of “C” or better; or placement through the assessment process.
Advisory: BUSTEC 300.1
Hours: 54 hours LEC
This course prepares students for professional business communication. It presents principles of correct and effective English usage as applied in business. Included are skills and techniques of written communication, sentence structure, word usage, punctuation, spelling, business vocabulary, and business document formatting. Emphasis is placed on critical thinking and effective writing techniques by analyzing written communication and composing and organizing paragraphs into effective business documents. Proofreading skills are stressed throughout the course.

BUS 105  Business Mathematics  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESRD 340.
General Education: AA/AS Area II(b)
Hours: 54 hours LEC
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  3 Units
Advisory: ENGRW 102 and ENGRW 116 with a grade of “C” or better; OR ESLR 320 and ESLR 320 with a grade of “C” or better.
General Education: AA/AS Area V(b)
Hours: 54 hours LEC
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  1 Unit
Advisory: BUS 350; and eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESRD 340.
Hours: 18 hours LEC
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  1 Unit
Advisory: BUS 350; and eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
Hours: 18 hours LEC
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  1 Unit
Hours: 18 hours LEC
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 annual costs. Financial ratios and key financial statements are also covered.

BUS 216  Essential Records for the Small Business  1 Unit
Advisory: ENGRWR 51 and ENGRD 15, OR ESLR 310 and ESLW 310; BUS 105 and 350 with a grade of “C” or better.
Hours: 18 hours LEC
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  1 Unit
Advisory: ENGRWR 51 and ENGRD 15, OR ESLR 310 and ESLW 310; BUS 105 and 350 with a grade of “C” or better.
Hours: 18 hours LEC
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  1 Unit
Advisory: ENGRWR 51 and ENGRD 15, OR ESLR 310 and ESLW 310; BUS 105 and 350 with a “C” grade or better.
Hours: 18 hours LEC
This course emphasizes the sales process of products/services. Special emphasis is given to small business owners and their needs.

BUS 224  Customer Service for the Small Business  1 Unit
Advisory: BUS 350
Hours: 18 hours LEC
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  1 Unit
Advisory: BUS 350
Hours: 18 hours LEC
The class 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  3 Units
Advisory: BUS 300
Hours: 54 hours LEC
This course is a comprehensive overview of international business, designed to provide both beginners and experienced business people with a global perspective on international trade, including foreign investments, impact of financial markets, international marketing, and the operation of multi-national corporations.

BUS 295  Independent Studies in Business  1-3 Units
Prerequisite: None
Hours: 54-162 hours LAB
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 300  Introduction to Business  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID BUS 110)

BUS 310  Business Communications  3 Units
Prerequisite: BUS 100 or ENGRWR 101 with a grade of “C” or better, or placement through the assessment process.
Advisory: BUS/CTEC 300.1
General Education: AA/AS Area II(a)
Course Transferable to CSU
Hours: 54 hours LEC
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. The course 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. An oral business presentation is prepared and delivered. (Competency: Writing)
BUS 312  Workplace Behavior and Ethics  3 Units  
Advisory: BUSTEC 300.1 and CISC 300 with a grade of “C” or better; and eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300, OR ESLR 340 AND ESIW 340.  
General Education: AA/AS Area III(b)  
Course Transferable to CSU  
Hours: 54 hours LEC  
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  3 Units  
Course Transferable to CSU  
Hours: 54 hours LEC  
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  3 Units  
Same As: ECON 320  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESIW 340.  
General Education: AA/AS Area V(b); AA/AS Area III(b); CSU Area D2  
Course Transferable to CSU  
Hours: 54 hours LEC  
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  3 Units  
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3  
Course Transferable to CSU  
Hours: 54 hours LEC  
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  3 Units  
Course Transferable to CSU  
Hours: 54 hours LEC  
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  3 Units  
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.  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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 organizations, ethics, and the regulatory process. (C-ID BUS 125)

BUS 350  Small Business Management/Entrepreneurship  3 Units  
Course Transferable to CSU  
Hours: 54 hours LEC  
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  1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54-162 hours LAB  
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  1-4 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESIW 340.  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to business with a cooperating site supervisor. Students are advised to consult with the Business Department faculty to review specific certificate and degree work experience requirements.  
General Education: AA/AS Area III(b)  
Course Transferable to CSU  
Hours: 60-300 hours LAB  
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
TECCOM 300  Introduction to Technical/Professional Communication  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 and ENGWR 300; OR ESLR 340 and ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
This course emphasizes principles of reader-centered writing for the workplace, focusing specifically on aspects of technical and professional communication. It covers the writing of documents used in businesses, academia, industry, and government. These documents may include memos, letters, brochures, reports, procedures, proposals, grants, scientific reports, web sites, software documentation, and case studies. This course is formerly known as ENGWR 342.

TECCOM 310  Technical/Professional Communication: Writing Reports  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
This course emphasizes the writing of reports for the workplace and for technical and scientific disciplines. It covers audience analysis, standard report formats, research techniques, and concise, grammatical writing. This course is formerly known as ENGWR 344.

TECCOM 320  Technical/Professional Communication: Proposal Writing  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
This course emphasizes the writing of proposals. It includes planning, writing, and evaluating proposals, both formal and informal, solicited and unsolicited. Special attention is given to requests for proposal (RFPs) and how to respond to them. This course is formerly known as ENGWR 350.

TECCOM 330  Technical/Professional Communication: Writing Technical Manuals  3 Units
Advisory: ARTNM 352 and CISA 305
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed for professionals in all fields who need to design, create, and revise user and reference manuals in print or online formats. The course offers strategies for audience and task analysis, product learning, document design, drafting, procedure writing, and revision. Desktop publishing and/or online help development tools are used to produce a portfolio-quality print or online manual. This course is formerly known as ENGWR 352.

TECCOM 340  Technical/Professional Communication: Developing Help Systems  1.5 Units
Advisory: CISA 305; Eligible for ENGRD 310 or ENGRD 312 and ENGWR 300; OR ESLR 340 and ESLW 340.
Course Transferable to CSU
Hours: 27 hours LEC
This course emphasizes the design, development, and delivery of self-contained and Web-based help systems. It reviews task and audience analysis and introduces strategies for designing, writing, organizing, revising, and publishing help projects. In addition, it introduces industry-standard help development tools. This course is formerly known as ENGWR 353.
DEGREES AND CERTIFICATES

Administrative Professional Degree
Major Code: 011052A01
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.

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 Opportunities
Typical career opportunities include clerical, administrative support, and executive assistant positions with private industry, non-profit organizations, and government entities.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
<td>3-4</td>
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<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
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<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BUS 310</td>
<td>Business Communications</td>
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<td>BUSTEC 101</td>
<td>Computer Keyboarding: 10-Key</td>
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<td>BUSTEC 110</td>
<td>Business Procedures for Professional Success</td>
<td>3</td>
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<td>BUSTEC 126</td>
<td>Outlook: Basics (1)</td>
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<td>or CISA 126</td>
<td>Outlook: Basics (1)</td>
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<td>BUSTEC 127</td>
<td>Outlook: Tools (1)</td>
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<td>or CISA 127</td>
<td>Outlook: Tools (1)</td>
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<td>BUSTEC 300.1</td>
<td>Keyboarding/Applications: Beginning</td>
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<td>BUSTEC 305</td>
<td>Business Technology Essentials</td>
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<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>3</td>
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<td>BUSTEC 312</td>
<td>Web-based Conferencing and Presentations for the Business Professional</td>
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<td>BUSTEC 320</td>
<td>Integrated Business Projects</td>
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<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
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<td>CISA 320</td>
<td>Introduction to Database Management</td>
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<td>MGMT 300</td>
<td>Introduction to Leadership in Action (3)</td>
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<tr>
<td>or MGMT 304</td>
<td>Principles of Management (3)</td>
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</table>

Associate Degree Requirements: The Administrative Assistant Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Virtual Administrative Professional Degree
Major Code: 011053A01
This degree offers enterprising individuals an opportunity to develop their own business ventures to perform administrative tasks using new technology and the Internet. The current trend toward "outsourcing" work supports the growing need for virtual professionals. Confidence in being customer focused and creative are essential activities of this program. The goal of the virtual administrative professional degree is to assist students in developing a niche that meets the needs of today’s employers.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• categorize essential records into an adequate record keeping system.
• compose written communications and deliver oral presentations for business proposals and projects that focus on the audience.
• explain the importance of a business plan, financial plan, and marketing plan for a business.
• create, arrange, and edit business documents using word processing features.
• select different technologies and software to complete business projects.
• design a virtual office atmosphere which includes marketing oneself, satisfying clients, and managing resources and capital.
• manipulate and format data into a worksheet and database.
• choose appropriate search strategies when using the Internet.

Career Opportunities
Typical career opportunities include administrative professional, executive and/or personal assistant, real estate virtual assistant, online assistant, meeting planner, travel planner, desktop publisher, graphic designer, clerical recruiter, newsletter editor, virtual meetings organizer, and virtual assistant. Industries that virtual professionals support are sales, law, finance, church, Internet enterprises, marketing firms, public relations, direct mail, concierge, authors, contractors, and therapists.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUS 105</td>
<td>Business Mathematics</td>
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<td>BUS 216</td>
<td>Essential Records for the Small Business</td>
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<td>BUS 224</td>
<td>Customer Service</td>
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<td>BUS 310</td>
<td>Business Communications</td>
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(continued on next page)
BUS 350  Small Business Management/Entrepreneurship..........................3
BUSTEC 110  Business Procedures for Professional Success........................................3
BUSTEC 300.1  Keyboarding/Applications: Beginning.............................................1
BUSTEC 300.2  Keyboarding/Applications: Document Formatting..........................1
BUSTEC 300.3  Keyboarding/Applications: Advanced Document Formatting...............1
BUSTEC 310  Introduction to Word/Information Processing.................................3
BUSTEC 332  Integrated Business Projects.............................................................3
BUSTEC 350  Virtual Careers and Technologies......................................................3
CISA 315  Introduction to Electronic Spreadsheets.................................................2
CISA 320  Introduction to Database Management...................................................1
CISC 305  Introduction to the Internet.....................................................................1

A minimum of 2 units from the following:............................................................... 2
BUS 498  Work Experience in Business (1 - 4)

Associate Degree Requirements: The Virtual Administrative Professional Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

**Business Information Worker Certificate**

Major Code: 011048C01

This certificate prepares students for entry-level office, computer, and administrative support positions in a variety of industries.

**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 Opportunities**

Students who successfully complete this certificate are prepared for entry-level positions in office, computer, and administrative support positions in a variety of industries.

**Requirements for Certificate** 19 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 100</td>
<td>English for the Professional</td>
<td>3</td>
</tr>
<tr>
<td>BUS 224</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 101</td>
<td>Computer Keyboarding: 10-Key</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 126</td>
<td>Outlook: Basics (1)</td>
<td>1</td>
</tr>
<tr>
<td>or CISA 126</td>
<td>Outlook: Basics (1)</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 300.1</td>
<td>Keyboarding/Applications: Beginning</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Business Technology Essentials</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 332</td>
<td>Integrated Business Projects (3)</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 312</td>
<td>Workplace Behavior and Ethics (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
</tbody>
</table>

**Law Office Clerical Assistant Certificate**

Major Code: 011604C01

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.

**Completion of the Law Office Assistant Certificate does not qualify the holder under California state law as a Legal Assistant or paralegal.**

**Student Learning Outcomes**

Upon completion of this certificate 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 Opportunities**

Typical career opportunities are entry-level clerical positions in a law office. In order to become a Legal Assistant/Paralegal, see the program requirements for the A.A. or Certificate in Legal Assisting.

**Requirements for Certificate** 21 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 312</td>
<td>Workplace Behavior and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 101</td>
<td>Computer Keyboarding: 10-Key</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 126</td>
<td>Outlook: Basics (1)</td>
<td>1</td>
</tr>
<tr>
<td>or CISA 126</td>
<td>Outlook: Basics (1)</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 127</td>
<td>Outlook: Tools (1)</td>
<td>1</td>
</tr>
<tr>
<td>or CISA 127</td>
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<td>2</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management</td>
<td>1</td>
</tr>
</tbody>
</table>

**Office Technology Certificate**

Major Code: 011211C01

This certificate offers technological skills in preparation for first-time employment, re-entry, or career advancement in a variety of office careers. Program topics include keyboarding/word processing, integrated office applications, organization and supervision of office activities, office procedures, business communications, critical thinking, and report writing.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

- compose and format business documents.
- demonstrate critical thinking and effective writing techniques.
- integrate the use of word processing, spreadsheet, database, presentation, and electronic communication software to business tasks.
- incorporate technological, communication, and problem-solving skills in the business setting.

See losrios.edu/gainful-emp-info/gdt.php?major=011211C01 for Gainful Employment Disclosure.
Virtual Office Professional Certificate

Major Code: 011592C01

This certificate program offers preparation as an independent entrepreneur providing administrative, creative, and technical services to clients in virtual environments. This emerging profession encourages working from home.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

- compose and format business documents demonstrating effective writing techniques and utilizing electronic technologies.
- follow procedures and guidelines for dealing with people – over the telephone, through email, and with other technologies.
- analyze the purpose of a business project, select software, and follow procedures to complete the project.
- describe the different types of virtual environments.
- use the principles of effective time management to prioritize and meet deadlines.
- list the skills and work habits necessary for success in a virtual office career.
- identify and select job and career opportunities in virtual environments.
- determine requirements for setting up a virtual office.

**Career Opportunities**

Typical career opportunities include administrative professional, executive and/or personal assistant, real estate virtual assistant, online assistant, meeting planner, travel planner, desktop publisher, graphic designer, clerical recruiter, newsletter editor, virtual meetings organizer, and virtual office assistant.

**Requirements for Certificate:** 16-17 Units

<table>
<thead>
<tr>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 100</td>
<td>English for the Professional</td>
<td>3</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Business Procedures for Professional Success</td>
<td>3</td>
</tr>
<tr>
<td>BUS 127</td>
<td>Outlook: Tools (1)</td>
<td>1</td>
</tr>
<tr>
<td>BUS 300.1</td>
<td>Keyboarding/Applications: Beginning</td>
<td>1</td>
</tr>
<tr>
<td>BUS 300.2</td>
<td>Keyboarding/Applications: Document Formatting</td>
<td>1</td>
</tr>
<tr>
<td>BUS 350</td>
<td>Virtual Careers and Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management (1)</td>
<td>2</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
<td></td>
</tr>
<tr>
<td>or CISC 305</td>
<td>Introduction to the Internet (1)</td>
<td></td>
</tr>
</tbody>
</table>

1 Individuals who hold a certificate as a Certified Administrative Professional (CAP) may receive credit for this option with evidence of completion of the CAP certification.

DEPARTMENT CERTIFICATE

Office Assistant Certificate

This certificate provides training in clerical procedures for entry-level office positions.

**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.
- apply appropriate rules and procedures for the business environment while demonstrating critical-thinking techniques.
- produce job search documents and demonstrate job search skills.

**Career Opportunities**

Typical career opportunities are entry-level clerical positions.

**Requirements for Certificate:** 6 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSTEC 125</td>
<td>Clerical Assistant</td>
<td>6</td>
</tr>
</tbody>
</table>

Business Technology

**BUSTEC 100.1 Keyboarding Skills: Beginning** 1 Unit

Prerequisite: BUSTEC 310 with a grade of “C” or better, or placement through the assessment process.

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300 or BUS 310; OR ESLR 340 AND ESLW 340.

Hours: 12 hours LEC, 18 hours LAB

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** 1 Unit

Prerequisite: BUSTEC 100.1

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300 or BUS 310; OR ESLR 340 AND ESLW 340.

Hours: 12 hours LEC, 18 hours LAB

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** 1 Unit

Prerequisite: BUSTEC 100.2

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300 or BUS 310; OR ESLR 340 AND ESLW 340.

Hours: 12 hours LEC, 18 hours LAB

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 1 Unit
Advisory: BUSTEC 300.1 with a grade of “C” or better
Hours: 12 hours LEC; 18 hours LAB
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 110  Business Procedures for Professional Success 3 Units
Prerequisite: BUSTEC 300.3 with a grade of “C” or better
Advisory: BUSTEC 310
Hours: 54 hours LEC
This course provides preparation for the business professional in electronic workplaces. Topics include business communication, records management, and preparation of business documents. Critical thinking, problem solving, teamwork, supervision skills, administrative procedures, and information processing technologies are used to complete assignments and activities as a business professional. These skills provide the background for advancement to supervisory and management positions. Primary emphasis is on processing documents using skills in word processing, spreadsheets, presentation graphics, database, and email. Career planning and development are addressed.

BUSTEC 125  Clerical Assistant 6 Units
Prerequisite: BUSTEC 300.1 with a grade of “C” or better; or ability to touch type at 25 wpm.
Corequisite: BUSTEC 101
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; or ESLR 340 AND ESLW 340.
Hours: 90 hours LEC; 54 hours LAB
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 1 Unit
Same As: CISA 126
Advisory: BUSTEC 300.1
Hours: 18 hours LEC
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. BUSTEC 126/CISA 126 and BUSTEC 127/CISA 127 taken together are considered sufficient preparation to pass the Microsoft Office Specialist certification for the Microsoft Outlook application and the communications portion of the International Computer Driver’s License (ICDL) Module 7: Information and Communication. This course is not open to students who have completed CISA 126.

BUSTEC 127  Outlook: Tools 1 Unit
Same As: CISA 127
Prerequisite: BUSTEC 126 or CISA 126 with a grade of “C” or better
Advisory: BUSTEC 300.1 with a grade of “C” or better
Hours: 18 hours LEC
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. Additionally, BUSTEC 126/CISA 126 and BUSTEC 127/CISA 127 taken together are considered sufficient preparation to pass the Microsoft Office Specialist certification for the Microsoft Outlook application and the communications portion of the International Computer Driver’s License (ICDL) Module 7: Information and Communication. This course is not open to students who have completed CISA 127.

BUSTEC 300.1  Keyboarding/Applications: Beginning 1 Unit
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300 or BUS 310; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 12 hours LEC; 18 hours LAB
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 1 Unit
Prerequisite: BUSTEC 300.1 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300 or BUS 310; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 12 hours LEC; 18 hours LAB
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  1 Unit
Prerequisite: BUSTEC 300.2 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300 or BUS 310; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 12 hours LEC; 18 hours LAB
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  Business Technology Essentials  1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course focuses on the integration of technology and administrative skills in a business environment. Topics include hardware and software; electronic, voice, and fax communications; electronic calendars; internet resources; digital copiers and scanners; and the virtual office. This is an introductory course recommended for all business students.

BUSTEC 310  Introduction to Word/Information Processing  3 Units
Prerequisite: BUSTEC 300.1 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course reviews basic word/information processing and introduces intermediate and advanced formatting for correspondence, tables, reports, newsletters, presentations, 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 313  Web-based Conferencing and Presentations for the Business Professional  2 Units
Advisory: BUS 310 and CISA 340
Course Transferable to CSU
Hours: 36 hours LEC
This course develops business presentation skills indispensable in today's job market. Topics include data evaluation, content planning and organizing, visual aid development, and methods of presentation including web (video) conferencing and podcasting. Strategies for interviews, meetings, training, and group presentations typically found in a business environment are explored.

BUSTEC 332  Integrated Business Projects  3 Units
Prerequisite: BUSTEC 110 with a grade of “C” or better
Advisory: BUSTEC 310, CISA 315, and CISA 320
Course Transferable to CSU
Hours: 54 hours LEC
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 350  Virtual Careers and Technologies  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course explores careers in a virtual environment and identifies techniques and technologies needed by virtual workers. Specific topics include types of virtual environments, technologies and skills needed in a virtual office, ways to establish and manage a virtual career, effective communication, and job opportunities. This course also examines issues for career preparation in a virtual environment.
American River College's chemistry program offers you a high quality education whether you are seeking to transfer to a 4-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, large selection of classes, 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).

**Career Opportunities**

The opportunities for those that have a core knowledge and understanding of the principles of chemistry are varied. Fields requiring a background in chemistry include: Chemistry, Medicine/Nursing, Engineering, Dentistry, Biochemistry, Forensics, Physical Therapy, Veterinary Medicine, Biotechnology, Respiratory Therapy, Dental Assistant/ Physician Assistant, Psychology, Biology, Environmental Science, Pharmacy, Pathology, Nutrition and Food Science, Physics, Optometry, Criminal Justice, Viticulture, Chiropractic Medicine, Geology, and Exercise Science.

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**General Science Degree**

**Major Code: 011229A01**

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.

**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.

**Requirements for Degree 18 Units**

A minimum of 18 units from the following: ............................................................. 18

**Physical Science Courses:**

- ASTR 300, 310, 320, 330, 400, 481, 495, 499
- CHEM 305, 306, 309, 310, 401, 420, 421, 423, 495, 499
- GEOG 300, 301, 303, 306, 307, 308, 309, 391, 392, 393, 394, 495, 499
- GEOL 300, 301, 303, 306, 310, 311, 320, 325, 330, 331, 345, 390, 495, 499
- PHYS 310, 311, 312, 350, 360, 410, 421, 431, 495, 499
- PS 300, 301, 495, 499

**Biological Science Courses:**

- ANTH 300, 301, 303, 370, 372, 480, 495, 499
- BIOL 300, 301, 303, 305, 310, 322, 332, 342, 352, 370, 375, 390, 400, 410, 415, 420, 430, 431, 440, 442, 482, 495, 499
- BIOT 301, 305, 307, 311, 312, 499
- NATR 300, 302, 303, 304, 305, 306, 307, 310, 320, 322, 324, 330, 332, 346, 495, 499
- PSYC 310, 311, 495, 499

1 must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science.

**Associate Degree Requirements:** The General Science Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
CHEM 83 Strategies for Problem Solving in General, Organic and Biological Chemistry .75 Units
Corequisite: CHEM 309
Hours: 40.5 hours LAB
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 .75 Units
Corequisite: CHEM 400
Hours: 40.5 hours LAB
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 that will be specific to CHEM 400. Pass/No Pass only.

CHEM 86 Strategies for Problem Solving in Organic Chemistry I .75 Units
Corequisite: CHEM 420
Hours: 40.5 hours LAB
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.

CHEM 87 Strategies for Problem Solving in Organic Chemistry II .75 Units
Corequisite: CHEM 421
Hours: 40.5 hours LAB
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 130 Chemistry for Funeral Service 4 Units
Corequisite: BUS 340, FSE 310, and FSE 320
Enrollment Limitation: Acceptance into the Funeral Service Education program. Hours: 72 hours LEC
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 5 Units
Prerequisite: MATH 100, 104, or 132 with a grade of "C" or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND E SLW 340.
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
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. (C-ID CHEM 101; Part of C-ID PHYS 140)

CHEM 306 Introduction to Organic and Biological Chemistry 5 Units
Prerequisite: CHEM 305 with a grade of "C" or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND E SLW 340.
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A
IGETC Area 5C
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
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. (C-ID CHEM 102)

CHEM 309 Integrated General, Organic, and Biological Chemistry 5 Units
Prerequisite: MATH 100, 104, 129, or 132 with a grade of "C" or better, or placement through the assessment process.
Advisory: One year of high school chemistry with a grade of "C" or better; AND MATH 120 or MATH 133; AND eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300, OR ESLR 340 AND E SLW 340.
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
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-care 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 4 Units
Prerequisite: MATH 100, 104, 129, or 132 with a grade of "C" or better
Corequisite: MATH 120, 124, or 133
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND E SLW 340.
General Education: AA/AS Area IV
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course introduces calculations, terminology, chemical techniques, and laboratory techniques. It provides intensive problem solving skills necessary for CHEM 400.

CHEM 400 General Chemistry I 5 Units
Prerequisite: MATH 120, 125, 129, or 133
Corequisite: MATH 120, 124, or 133
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND E SLW 340.
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB
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. (C-ID CHEM 110; Part of C-ID CHEM 120S)
CHEM 401 General Chemistry II 5 Units
Prerequisite: CHEM 400 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 306; OR ESLR 340 AND ESLW 340.
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB
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 qualitative analysis and experiments dealing with the theoretical work discussed in lecture. (Part of C-ID CHEM 120S)

CHEM 420 Organic Chemistry I 5 Units
Prerequisite: CHEM 401 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB
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. (C-ID CHEM 150; Part of C-ID CHEM 160S)

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

CHEM 423 Organic Chemistry - Short Survey 5 Units
Prerequisite: CHEM 401 with a grade of “C” or better
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
This course is a survey of carbon containing compounds with emphasis on organic compounds of biological interest. Topics include the chemistry of organic functional groups, Infra Red spectroscopy, and mechanisms of reactions. This course is designed primarily for students majoring in the life sciences, nutrition/dietetics, and related fields. This course is not recommended for students majoring in chemistry, chemical engineering, medicine, dentistry, pharmacy, or chiropractics.

CHEM 495 Independent Studies in Chemistry 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
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.

<table>
<thead>
<tr>
<th>Community Services Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CSERV 2010</strong> Emergency Medical Technician Renewal</td>
</tr>
<tr>
<td>Community Services (Not-for-Credit) Course</td>
</tr>
<tr>
<td>Hours: 24 hours TBA</td>
</tr>
<tr>
<td>Course is designed to review basic prehospital topics and skills required for National Registry of Emergency Medical Technician recertification.</td>
</tr>
</tbody>
</table>

**CSERV 2011** Emergency Medical Technician Skills Competency Verification | 0.00 Units |
Community Services (Not-for-Credit) Course | |
Hours: 8 hours TBA | |
This course is designed to provide Emergency Medical Technicians (EMT) the opportunity to verify EMT-Skills Competency as required by the California Emergency Medical Services Authority. |

**CSERV 2013** Pediatric Advanced Life Support | 0.00 Units |
Community Services (Not-for-Credit) Course | |
Hours: 16 hours TBA | |
The PALS course gives healthcare professionals the knowledge and skills to better recognize and treat critically ill infants and children. The course uses a scenario-based, team approach to teach pediatric emergency management of pediatric patients approaching or already in respiratory or cardiac arrest. The course covers treatment beyond the first few emergency minutes and goes through stabilizing patients or transport phases of a pediatric emergency, in or out of the hospital. |

**CSERV 2014** Pediatric Advanced Life Support Renewal | 0.00 Units |
Community Services (Not-for-Credit) Course | |
Hours: 8 hours TBA | |
The PALS course gives healthcare professionals the knowledge and skills to better recognize and treat critically ill infants and children. The course uses a scenario-based, team approach to teach pediatric emergency management of pediatric patients approaching or already in respiratory or cardiac arrest. The course covers treatment beyond the first few emergency minutes and goes through stabilizing patients or transport phases of a pediatric emergency, in or out of the hospital. Recertification/renewal is provided to professional with a current provider level PALS certification. |

**CSERV 2015** Advanced Cardiac Life Support Renewal | 0.00 Units |
Community Services (Not-for-Credit) Course | |
Hours: 16 hours TBA | |
Emergency Health Care Providers frequently manage patients with life-threatening cardiac events. This course will enhance their skills in treating adult victims of cardiac arrest or other cardiopulmonary emergencies. This course emphasizes will include: • importance of basic life support CPR to patient survival • integration of effective basic life support with ACLS interventions • importance of effective team interaction and communication during resuscitation. The course includes simulated clinical scenarios that encourage active, hands-on participation through learning stations where students practice essential skills individually, as part of a team, and as team leader. |

**CSERV 2016** Advanced Cardiac Life Support Renewal | 0.00 Units |
Community Services (Not-for-Credit) Course | |
Hours: 8 hours TBA | |
Emergency Health Care Providers frequently manage patients with life-threatening cardiac events. This course will enhance their skills in treating adult victims of cardiac arrest or other cardiopulmonary emergencies. This course emphasizes will include: • importance of basic life support CPR to patient survival • integration of effective basic life support with ACLS interventions • importance of effective team interaction and communication during resuscitation. The course includes simulated clinical scenarios that encourage active, hands-on participation through learning stations where students practice essential skills individually, as part of a team, and as team leader. Recertification assumes experience as a provider of ACLS. |

**CSERV 2018** National Registry Paramedic Licensure Preparation | 0.00 Units |
Community Services (Not-for-Credit) Course | |
Hours: 8 hours TBA | |
This course is designed to prepare paramedic students for the National Registry of Emergency Medical Technicians-Paramedic Licensure Examination. |

**CSERV 2019** National Registry Paramedic Licensure Testing | 0.00 Units |
Community Services (Not-for-Credit) Course | |
Hours: 8 hours TBA | |
This course is designed to test paramedic students for minimum skills competency for the National Registry of Emergency Medical Technicians-Paramedic.
CSERV 2020  12 Lead EKG Interpretation and Advanced Cardiac Care  0.00 Units
Community Services (Not-for-Credit) Course
Hours: 8 hours TBA
This course is designed for practicing health care professionals who manage and treat emergency cardiac patients. The course presents current concepts involving 12 lead EKG application, interpretation and associated advanced emergency cardiac care.

CSERV 2021  MCI & Incident Command System Basics  0.00 Units
Community Services (Not-for-Credit) Course
Hours: 8 hours TBA
This course is designed for Public Safety professionals interested in understanding the basic concepts of both the Incident Command System (ICS) and Mass Casualty Incidents (MCI). The course provides students with simulated opportunities to implement the ICS when presented with MCI events.

CSERV 2022  Trauma Life Support  0.00 Units
Community Services (Not-for-Credit) Course
Hours: 16 hours TBA
This course is designed to provide students with the knowledge and skills to better manage trauma patients in the prehospital environment. The courses involves international standards that enable the student to master the latest techniques in rapid trauma assessment, identification of immediate life-threatening injuries and the appropriate medical interventions.

CSERV 2040  Medical Spanish: Part 1  0.00 Units
Community Services (Not-for-Credit) Course
Hours: 32 hours TBA
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  0.00 Units
Community Services (Not-for-Credit) Course
Hours: 32 hours TBA
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 2030  Russian for Business and Travel I  0.00 Units
Community Services (Not-for-Credit) Course
Hours: 16 hours TBA
This is an introductory course in Russian that emphasizes basic business and travel-related vocabulary as well as cultural/nonverbal aspects of Russian business communication. This low-stress course introduces only the grammar and structures absolutely necessary for speaking and is oriented to the development of travel and business speech habits. It covers such topics as formal and informal greetings and farewells, getting acquainted, talking about self and family, asking for directions and transportation, describing weather, feelings and emotions. The course also enhances participants’ general understanding of Russian-speaking cultures and introduces some significant aspects of Russian geography and modern history. No prior knowledge of Russian is required.

CSERV 2031  Russian for Business and Travel II  0.00 Units
Community Services (Not-for-Credit) Course
Hours: 16 hours TBA
This is an introductory course in Russian that emphasizes basic business and travel-related vocabulary as well as cultural/nonverbal aspects of Russian business communication. This low-stress course introduces only the grammar and structures absolutely necessary for speaking and is oriented to the development of travel and business speech habits. It covers such topics as airport procedures, baggage claim information, daily routine, hotel-related phrases, money, and vocabulary and ethics of phone conversations. The course also enhances participants’ general understanding of Russian-speaking cultures and introduces some significant aspects of Russian geography and modern history. Intended for community members with minimal previous knowledge of Russian.
CSERV 2080  BAR A-6 Alternative -  
Electrical and Electronic  
Systems Training 0.00 Units  
Community Services (Not-for-Credit) Course  
Hours: 27 hours TBA  
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 0.00 Units  
Community Services (Not-for-Credit) Course  
Hours: 27 hours TBA  
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  0.00 Units  
Community Services (Not-for-Credit) Course  
Hours: 36 hours TBA  
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 0.00 Units  
Community Services (Not-for-Credit) Course  
Hours: 16 hours TBA  
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)  0.00 Units  
Community Services (Not-for-Credit) Course  
Hours: 8 hours TBA  
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)  0.00 Units  
Community Services (Not-for-Credit) Course  
Hours: 8 hours TBA  
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.
Area: Business & Computer Science
Dean: Kirsten Corbin
Phone: (916) 484-8361
Counseling: (916) 484-8572

DEGREES AND CERTIFICATES

Computer Science Degree
Major Code: 011428A01
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.

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.

Requirements for Degree: 30-32 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
<td>5 - 7</td>
</tr>
<tr>
<td>and CISP 360</td>
<td>Introduction to Structured Programming (4)</td>
<td></td>
</tr>
<tr>
<td>or CISP 480</td>
<td>Honors Introduction to Structured Programming (5)</td>
<td></td>
</tr>
<tr>
<td>CISP 310</td>
<td>Assembly Language Programming for Microcomputers</td>
<td>4</td>
</tr>
<tr>
<td>CISP 400</td>
<td>Object Oriented Programming with C++</td>
<td>4</td>
</tr>
<tr>
<td>CISP 430</td>
<td>Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>CISP 440</td>
<td>Discrete Structures for Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>MATH 400</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 401</td>
<td>Calculus II</td>
<td>5</td>
</tr>
</tbody>
</table>

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

CIS: Computer Networking Management Degree
Major Code, Cisco: 011427A04
Major Code, Linux: 011427A02
Major Code, MS Windows: 011427A03

The degree covers network administration technologies, techniques, and the hardware and software used in today’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:
• 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.

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.

CIS 330 - Implementing Internet Security and Firewalls (new course added per June 2019 Addendum)
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 Opportunities
The Network Management 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.

Core Requirements for Degree 14-15 Units

Core Requirements for Degree 33-35 Units

CISCO Concentration .......................... 33-35 Units

LINUX Concentration 32 - 33 Units

Core Requirements .............................. 14 - 15
CISC 324 Networking Technologies - Preparation for N+ Certification ............................... 2
CISN 110 Intermediate Networking Technologies - Preparation for N+ Certification ............................... 2
CISN 111 Intermediate Networking Technologies - Preparation for N+ Certification ............................... 2
CISN 119 TCP/IP Protocols ............................... 3
CISN 120 Beginning Network Administration with Linux ......................................................... 3
CISN 121 Network Administration with Linux: LAN Services ......................................................... 2
CISN 122 Network Administration with Linux: Internet Services ......................................................... 2
And 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)

WINDOWS Concentration 33 - 34 Units

Core Requirements ................................................. 14 - 15
CISN 110 Networking Technologies - Preparation for N+ Certification ............................... 2
CISN 111 Intermediate Networking Technologies - Preparation for N+ Certification ............................... 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)
And a minimum of 3 units from the following: ......................................................... 3
CISP 370 Beginning Visual Basic (4)
CISS 341 Implementing Windows Operating System Security (3)

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

CIS: Computer Networking Management Certificate
Major Code, Cisco: 011427C04
Major Code, Linux: 011427C02
Major Code, MS Windows: 011427C03

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.

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.

(continued on next page)
(CIS: Computer Networking Management Certificate continued)

- design and construct and troubleshoot a Microsoft Active Directory
- install, configure, monitor, manage, backup, and customize

WINDOWS CONCENTRATION:
- design, evaluate and implement and troubleshoot typical Linux
- install, configure, monitor, manage, backup, and customize
- evaluate, specify, and install various types of network media.
- design and evaluate basic security and access solutions in a
- design, evaluate, construct and implement a multilayer switching
- design, evaluate, construct and implement a routed network

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.
- 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.

See losrios.edu/gainful-emp-info/gedt.php?major=011427C01 for Gainful Employment Disclosure.

Core Requirements for Certificate 8 Units

CISC 323  Linux Operating System ........................................... 1
CISC 350  Introduction to Data Communications ......................... 1
CISC 361  Microcomputer Support Essentials -
Preparation for A+ Certification ............................................. 3
CISS 310  Network Security Fundamentals ................................. 3

CISCO Concentration 21 Units

Core Requirements .................................................. 8

CISC 324  Intermediate Linux Operating System ............................. 1
CISN 140  CISCO Networking Academy (CCNA):t
Networking Fundamentals ................................................. 3
CISN 141  CISCO Networking Academy (CCNA):t
Routing Protocols and Concepts ...................................... 3
CISN 142  CISCO Networking Academy (CCNA):t
LAN Switching and Wireless .......................................... 3
CISN 143  CISCO Networking Academy (CCNA):t
Accessing the Wide Area Network .................................... 3

CIS: Computer Programming Degree

Major Code, C++: 011326A05
Major Code, Java: 011326A03
Major Code, Visual Basic: 011326A04

This degree includes general topics in the field of computer programming as well as focused topics related to one commonly used programming language. General topics include 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.

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 Opportunities

Upon completion of the computer programming degree, a student has the minimum qualifications as an entry-level programmer/developer.

Core Requirements for Degree 6 Units

CISC 310  Introduction to Computer Information Science ................. 3
CISP 350  Database Programming ............................................. 3

C++ Concentration 19-21 Units

Core Requirements ................................................. 6

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
Visual Basic Concentration  20 Units
Core Requirements .........................................................6
CISP 323  Design and Development of Desktop  ...............3
CISP 330  Algorithm Design/Problem Solving ..................3
CISP 370  Beginning Visual Basic .....................................4
CISP 371  Intermediate Visual Basic .................................4
Associate Degree Requirements: The Visual Basic Concentration (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

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 Opportunities
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.

See losrios.edu/gainful-emp-info/gedt.php?major=011326C05 for Gainful Employment Disclosure.

CIS: Database Management Degree
Major Code: 011425A01
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.

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.

(continued on next page)
COMPUTER INFORMATION SCIENCE

(CIS: Database Management Degree continued)

- 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.

Requirements for Degree 39-40 Units

**ACCT 101** Fundamentals of College Accounting (3) ................................................. 3 - 4
or **ACCT 301** Financial Accounting (4) ................................................................. 4
or **ECON 302** Principles of Macroeconomics (3) ....................................................... 3
or **BUS 300** Introduction to Business .................................................................... 3
**CISC 310** Introduction to Computer Information Science .............................. 3
**CISC 320** Operating Systems .............................................................................. 1
**CISA 315** Introduction to Database Management ................................................. 1
**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** Middleware Web Scripting ................................................................. 4

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

CIS: Database Management Certificate
Major Code: 011324C01

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.

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011324C01 for Gainful Employment Disclosure.

Requirements for Certificate 24 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** Middleware Web Scripting ................................................................. 4

CIS: Microcomputer Applications Degree
Major Code: 011065A01

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.

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.

Requirements for Degree 37 Units

**BUSTEC 300.1** Keyboarding/Applications: Beginning ............................................. 1
or **CISA 126** Outlook: Basics (1) ......................................................................... 1
or **BUSTEC 126** Outlook: Basics (1) ..................................................................... 1
or **CISA 127** Outlook: Tools (1) .......................................................................... 1
or **BUSTEC 127** Outlook: Tools (1) ..................................................................... 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
**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
And a minimum of 5 units from the following:

**ACCT 341** Computerized Accounting (2)
**BUSTEC 313** Web-based Conferencing and Presentations for the Business Professional (2)
**CISA 160** Project Management Techniques and Software (3)
CISA 171  Introduction to Adobe Acrobat (1)
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)

And 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 371  Intermediate Visual Basic (4)
CISP 480  Honors Introduction to Structured Programming (5)
CISS 300  Introduction to Information Systems Security (1)
CISW 370  Designing Accessible Web Sites (1)

Associate Degree Requirements: The CIS: Microcomputer Applications Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

CIS: Microcomputer Applications Certificate
Major Code: 011327C01

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.

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011327C01 for Gainful Employment Disclosure.

Requirements for Certificate 21 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management</td>
<td>1</td>
</tr>
<tr>
<td>CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
<td>2</td>
</tr>
<tr>
<td>CISA 350</td>
<td>Introduction to the Internet</td>
<td>1</td>
</tr>
<tr>
<td>CISA 370</td>
<td>Introduction to Computer Information Science</td>
<td>3</td>
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<tr>
<td>CISA 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CISA 350</td>
<td>Introduction to Data Communications</td>
<td>1</td>
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<tr>
<td>CISA 306</td>
<td>Intermediate Word Processing (2)</td>
<td>2</td>
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<tr>
<td>CISA 316</td>
<td>Intermediate Electronic Spreadsheets (2)</td>
<td>2</td>
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<tr>
<td>CISA 322</td>
<td>Design and Development of Desktop Database Applications (3)</td>
<td>3</td>
</tr>
<tr>
<td>CISA 306</td>
<td>Introduction to Web Page Creation (1)</td>
<td>1</td>
</tr>
<tr>
<td>CISA 323</td>
<td>Linux Operating System (1)</td>
<td>1</td>
</tr>
</tbody>
</table>

And a minimum of 6 units from the following: ................................. 6

CISA 126  Outlook: Basics (1)
or  BUS 126  Outlook: Basics (1)
and  CISA 127  Outlook: Tools (1)
or  BUS 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)
CISA 306  Introduction to Web Page Creation (1)
CISC 323  Linux Operating System (1)

1 Taken on the Windows operating system.

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

CIS: PC Support Management Degree
Major Code: 011426A01

The CIS: PC Support Management degree covers the use and maintenance of a microcomputer’s 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.

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.

Requirements for Degree 32 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CISA 160</td>
<td>Project Management Techniques and Software</td>
<td>3</td>
</tr>
<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science</td>
<td>3</td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CISC 350</td>
<td>Introduction to Data Communications</td>
<td>1</td>
</tr>
<tr>
<td>CISC 351</td>
<td>Introduction to Local Area Networks</td>
<td>1</td>
</tr>
<tr>
<td>CISC 361</td>
<td>Microcomputer Support Essentials - Preparation for A+ Certification</td>
<td>3</td>
</tr>
<tr>
<td>CISC 362</td>
<td>Microcomputer and Applications Support</td>
<td>2</td>
</tr>
<tr>
<td>CISC 363</td>
<td>Microcomputer Support Technical - Preparation for A+ Certification</td>
<td>3</td>
</tr>
<tr>
<td>CISS 315</td>
<td>Ethical Hacking</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 6 units from the following: ................................. 6

CISA 126  Outlook: Basics (1)
or  BUS 126  Outlook: Basics (1)
and  CISA 127  Outlook: Tools (1)
or  BUS 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)
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CISA 126  Outlook: Basics (1)
CISC 323  Linux Operating System (1)
CISA 320  Introduction to Database Management (1)
CISA 315  Introduction to Electronic Spreadsheets (2)
CISA 305  Beginning Word Processing (2)
CISS 315  Ethical Hacking .............................................................................. 3
CISS 360  Computer Forensics and Investigation ........................................... 3
BUSTEC 126  Outlook: Basics (1)
BUSTEC 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)
CISA 306  Introduction to Web Page Creation (1)
CISC 361  Microcomputer Support Essentials -
Preparation for A+ Certification ................................................................... 3
CISC 362  Microcomputer and Applications Support .................................... 2
CISC 363  Microcomputer Support Technical -
Preparation for A+ Certification ................................................................... 3
CISS 315  Ethical Hacking .............................................................................. 3
And a minimum of 6 units from the following: ............................................ 6
CISA 126  Outlook: Basics (1)
CISA 127  Outlook: Tools (1) }

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.

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.

Requirements for Certificate 26 Units

BUS 310  Business Communications ......................................................... 3
CISC 310  Introduction to Computer Information Science ......................... 3
CISC 320  Operating Systems ..................................................................... 1
CISC 350  Introduction to Data Communications ........................................ 1
CISC 351  Introduction to Local Area Networks .......................................... 1
CISC 361  Microcomputer Support Essentials -
Preparation for A+ Certification ................................................................... 3
CISC 362  Microcomputer and Applications Support .................................... 2
CISC 363  Microcomputer Support Technical -
Preparation for A+ Certification ................................................................... 3
CISS 315  Ethical Hacking .............................................................................. 3
CISA 126  Outlook: Basics (1)
or CISA 127  Outlook: Tools (1) }

Information Systems Security Degree

Major Code: 011554A01

This program provides the information and skills necessary for network administration professionals to implement security from internal and external threats for an enterprise network. It covers client and server security on different operating systems, disaster recovery planning, and forensics. This program also provides preparation for several computer information security certification exams, including the Computer Technology Industry Association (CompTIA) Security+ exam, Microsoft Certified Systems Engineer (MCSE) exams and several of the Certified Information Systems Security Professional (CISSP) certification exams.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• define best practices for configuring network operating system services to provide optimum security.
• compare and contrast the benefits of firewalls vs. intrusion detection devices and software.
• explain and configure a network firewall to provide optimum security from external threats and exploits.
• analyze organizational needs and implement internal security policies for the enterprise.
• evaluate and implement the required security programs and policies to protect the enterprise against viruses, Trojans, worms, rootkits, and spyware.
• assess and configure secure data transfer protocols for internal and external needs, including Windows IP Security (IPSec) and the Virtual Private Network (VPN) tunneling protocols.
• apply Windows group policy to secure the internal network and shared resources.
• construct NTFS file system permissions and shares to allow only the minimum levels of access needed by users to use network resources.
• prioritize and establish a disaster recovery plan for the enterprise.
• construct and apply group policy settings at the Organizational Unit (OU), Domain, Site or local machine level.
• explain and configure a network firewall to provide optimum security from external threats and exploits.
• construct Windows NTFS file system permissions and shares to allow only the minimum levels of access needed by users to access network resources.
• compare and contrast the benefits of firewalls vs. intrusion detection devices and software.

Requirements for Certificate 12 Units

CISS 310  Network Security Fundamentals .................................................. 3
CISS 325  Network Security and Firewalls ................................................... 3
CISS 341  Implementing Windows Operating System Security (5) ............ 3
or CISS 342  Implementing Linux Operating System Security (5) ............... 3
CISS 360  Computer Forensics and Investigation ........................................ 3

Computer Information Security Essentials Certificate

Major Code: 011325C01

This program provides the basic information and skills necessary for network administrators to implement security from internal and external threats to a network. It also provides preparation for the Computing Technology Industry Association (CompTIA) Security+ exam.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• configure and implement data security methods for protecting computers and networks from unauthorized access.

Requirements for Certificate 26 Units

BUS 310  Business Communications ......................................................... 3
CISC 310  Introduction to Computer Information Science ......................... 3
CISC 320  Operating Systems ..................................................................... 1
CISC 350  Introduction to Data Communications ........................................ 1
CISC 351  Introduction to Local Area Networks .......................................... 1
CISC 361  Microcomputer Support Essentials -
Preparation for A+ Certification ................................................................... 3
CISC 362  Microcomputer and Applications Support .................................... 2
CISC 363  Microcomputer Support Technical -
Preparation for A+ Certification ................................................................... 3
CISS 315  Ethical Hacking .............................................................................. 3
CISA 126  Outlook: Basics (1)
or CISA 127  Outlook: Tools (1) }

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### Information Systems Security Certificate

**Major Code:** 011554C01

This program provides the information and skills necessary for network administrators to implement security to protect against internal and external threats to an enterprise network, and covers client and server security on different operating systems. This program provides preparation for several certification exams, including the Computer Technology Industry Association (CompTIA) Security+ exam, Microsoft Certified Systems Engineer (MCSE) exams, and some of the Certified Information Systems Security Professional (CISSP) certification exams.

**Student Learning Outcomes**

**Upon completion of this program, the student will be able to:**

- define best practices for configuring network operating system services to provide optimum security.
- construct and apply secure group policy settings at the Organizational Unit (OU), domain, site or local machine level.
- explain and configure a network firewall to provide optimum security from external threats and exploits.
- analyze organizational needs and implement internal security policies for the enterprise.
- evaluate and implement the required security programs and policies to protect the enterprise against viruses, Trojans, worms, rootkits, and spyware.
- assess and configure secure Internet Protocol (IP) data transfer protocols for internal and external needs, including Internet Protocol Security (IPSec) and the Virtual Private Networking (VPN) tunneling protocols.
- prioritize and establish a disaster recovery plan for the enterprise.
- compare and contrast the benefits of firewalls vs. intrusion detection devices and software.

See losrios.edu/gainful-emp-info/gedc.php?major=011554C01 for Gainful Employment Disclosure.

### Requirements for Degree

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CISC 323</td>
<td>Linux Operating System</td>
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<tr>
<td>CISC 324</td>
<td>Intermediate Linux Operating System</td>
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<tr>
<td>CISC 300</td>
<td>Network Systems Administration</td>
<td>3</td>
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<tr>
<td>CISC 302</td>
<td>Intermediate Network Systems Administration (3)</td>
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<tr>
<td>or CISC 140</td>
<td>CISCO Networking Academy (CCNA)tm: Networking Fundamentals (3)</td>
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<tr>
<td>CISS 300</td>
<td>Introduction to Information Systems Security</td>
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</tr>
<tr>
<td>CISS 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CISS 315</td>
<td>Ethical Hacking</td>
<td>3</td>
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<tr>
<td>CISS 325</td>
<td>Network Security and Firewalls</td>
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<tr>
<td>CISS 341</td>
<td>Implementing Windows Operating System Security</td>
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<tr>
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<td>Implementing Linux Operating System Security</td>
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<tr>
<td>CISS 350</td>
<td>Disaster Recovery</td>
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<td>CISS 360</td>
<td>Computer Forensics and Investigation</td>
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<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
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**Total Units:** 33

### Requirements for Certificate

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<thead>
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<th>Course Code</th>
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<tr>
<td>CISC 323</td>
<td>Linux Operating System</td>
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<td>CISC 324</td>
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<td>CISS 310</td>
<td>Network Security Fundamentals</td>
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<td>CISS 315</td>
<td>Ethical Hacking</td>
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</tr>
<tr>
<td>CISS 325</td>
<td>Network Security and Firewalls</td>
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<tr>
<td>CISS 341</td>
<td>Implementing Windows Operating System Security</td>
<td>3</td>
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<tr>
<td>CISS 342</td>
<td>Implementing Linux Operating System Security</td>
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<tr>
<td>CISS 343</td>
<td>Linux Operating System</td>
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<tr>
<td>CISS 360</td>
<td>Computer Forensics and Investigation</td>
<td>3</td>
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<tr>
<td>CISS 361</td>
<td>Network Systems Administration</td>
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<tr>
<td>CISN 140</td>
<td>CISCO Networking Academy (CCNA)tm: Networking Fundamentals (3)</td>
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<td>or CISC 300</td>
<td>Network Systems Administration</td>
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<tr>
<td>or CISN 302</td>
<td>Intermediate Network Systems Administration (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** 24

### Internet Marketing Certificate

**Major Code:** 011320C01

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.

**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 Opportunities**

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.

### Requirements for Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
<td>2</td>
</tr>
<tr>
<td>CISA 345</td>
<td>Technical Marketing Applications</td>
<td>2</td>
</tr>
<tr>
<td>CISA 346</td>
<td>Social Media Applications</td>
<td>1</td>
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<tr>
<td>CISW 350</td>
<td>Imaging for the Web</td>
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<tr>
<td>MKT 330</td>
<td>Internet Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** 14

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**Associate Degree Requirements:** The Information Systems Security Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Mobile Programming Certificate
Major Code: 011459C01
This certificate offers a program of study for students seeking jobs in the fields of mobile application development. It provides opportunities to develop the necessary skills and aptitudes for designing, developing, and testing a variety of application programs for mobile devices.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• develop a mobile application program using tools included in a software development kit.
• design software using object-oriented methods to develop event-driven programs for mobile application programs.
• publish mobile applications in an application marketplace.

Career Opportunities
Mobile devices such as tablets and smart phones continue to be more cost effective and versatile. Due to the portability, cost, built-in devices and user-friendliness, mobile devices gain much popularity in end-user and commercial markets. As a result, there is a great demand for developers and software engineers who can write application programs for mobile devices. A developer with this certificate can work as an independent mobile application developer or join a team of developers in software firms that specialize in mobile application development.

Requirements for Certificate  15 - 16 Units
1st semester:
CISP 300  Algorithm Design/Problem Solving (3) ..............................................3 - 4
or CISP 370  Beginning Visual Basic (4)
CISP 362  Programming for Mobile Devices I ...................................................4
2nd semester:
CISP 360  Introduction to Structured Programming ...........................................4
CISP 363  Programming for Mobile Devices II ....................................................4

Network Administration Essentials - Windows Certificate
Major Code: 011585C01
This program provides the information and skills necessary for network administration professionals to administer a Windows Active Directory domain-based enterprise network. It also provides preparation for several Microsoft Certified Systems Engineer (MCSE) certification exams.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• define best practices for configuring network operating system services.
• construct and apply group policy settings at the Organizational Unit (OU), domain, site or local machine level.
• apply Windows group policy and NTFS file system permissions to secure the workstations, the internal network and shared resources.

Requirements for Certificate  12 Units
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)

Web Developer Certificate
Major Code: 011458C01
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.

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 for 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.
• 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.

Requirements for Certificate 24 - 27 Units
CISC 330  Operating Systems .............................................................................1
CISC 332  Linux Operating System ......................................................................1
CISC 334  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) .........................................................3 - 4
or CISW 360  Beginning Flash (3)
or CISW 400  Client-side Web Scripting (4)
CISW 370  Designing Accessible Web Sites ....................................................1
CISW 410  Middleware Web Scripting ...............................................................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  Middleware Web Scripting (4)
Web Publishing Certificate
Major Code: 011424C01
This certificate offers a program of study for students seeking jobs in the fields of web publishing, design, and development. It provides opportunities to develop the necessary skills for creating and maintaining large web sites for industry, government, and nonprofit agencies. General development of web publishing skills, including a thorough grounding in the HyperText Markup Language (HTML), Internet protocols, and web standards, is emphasized.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
- research the differences in goals, techniques, and costs between traditional print publishing and web publishing.
- create a functional web site using HyperText Markup Language (HTML) and Cascading Style Sheets (CSS).
- incorporate dynamic and interactive features into a web site using client-side or server-side scripting.
- evaluate web accessibility issues when designing web sites.
- integrate graphic principles and programming functionality with a web application.
- demonstrate basic use of both Linux and Microsoft Windows operating system commands.
- See losrios.edu/gainful-emp-info/gedt.php?major=011424C01 for Gainful Employment Disclosure.

Requirements for Certificate 19 Units
CISC 310 Introduction to Computer Information Science ........................................... 3
CISC 320 Operating Systems .................................................................................. 1
CISC 323 Linux Operating System ......................................................................... 1
CISW 300 Web Publishing .................................................................................... 3
CISW 304 Cascading Style Sheets ........................................................................ 3
CISW 350 Imaging for the Web ............................................................................. 1
CISW 370 Designing Accessible Web Sites .............................................................. 1
A minimum of 4 units from the following: ................................................................. 4
CISW 310 Advanced Web Publishing (4)
CISW 400 Client-side Web Scripting (4)
CISW 410 Middleware Web Scripting (4)
A minimum of 3 units from the following: ................................................................. 3
ARTNM 402 Intermediate Web Design (3)
CISW 321 Web Site Development using Dreamweaver (3)
CISW 355 Web Imaging Projects (2)
CISW 360 Beginning Flash (3)

Technical Communications Degree
Major Code: 011222A01
This is an interdisciplinary course of study designed to prepare students for employment as professional writers and communicators in a variety of media intended to instruct and inform audiences. The degree program includes substantial course work in writing, information design, editing, page design, online help development, web site creation, and the use of industry standard applications.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
- analyze audience information needs and propose solutions to aid the audience.
- design technical communication solutions for a variety of industry and government purposes.
- design and create web sites and help systems with effective visual design, navigation, and written content.
- design and publish printed pages with effective design, organization, content, and indexing.
- compose professional prose for a variety of audiences with a variety of purposes.
- compose and edit professional documents in grammatically correct, concise English.
- create and use style templates in a variety of industry standard software.

Career Opportunities
Technical communicators may be employed in a variety of occupations in government, scientific firms, nonprofits, natural resources, finance, education, and high tech.

Requirements for Degree 36.5 Units
BUS 100 English for the Professional ................................................................. 3
CISA 305 Beginning Word Processing ................................................................. 2
CISW 300 Web Publishing .................................................................................... 3
JOUR 300 Newswriting and Reporting ................................................................. 3
TECCOM 300 Introduction to Technical/Professional Communication ............ 3
TECCOM 310 Technical/Professional Communication: Writing Reports ......... 3
TECCOM 320 Technical/Professional Communication: Proposal Writing ....... 3
TECCOM 330 Technical/Professional Communication: Writing Technical Manuals .... 3
TECCOM 340 Technical/Professional Communication: Developing Help Systems .................. 1.5

And a minimum of 12 units from the following: ...................................................... 12
ARTNM 328 Beginning Digital Photo Imagery (3)
ARTNM 330 Intermediate Digital Photo Imagery (3)
ARTNM 352 Design for Publication (3)
CISA 331 Intermediate Desktop Publishing (2)
CISW 310 Advanced Web Publishing (4)
CISW 321 Web Site Development using Dreamweaver (3)
CISW 400 Client-side Web Scripting (4)
CISW 410 Middleware Web Scripting (4)
ENGWR 301 College Composition and Literature (3)

Associate Degree Requirements: The Technical Communications Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Technical Communications Certificate
Major Code: 011222C01
The Technical Communications certificate offers an interdisciplinary program of courses in writing, 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.

(continued on next page)
Computer Information Science - Apps

CISA 127 Outlook: Tools 1 Unit

Prerequisite: BUSTEC 126 or CISA 126 with a grade of “C” or better
Advisory: BUSTEC 300.1 with a grade of “C” or better
Hours: 18 hours LEC

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. Additionally, BUSTEC 126/CISA 126 and BUSTEC 127/CISA 127 taken together are considered sufficient preparation to pass the Microsoft Office Specialist certification for the Microsoft Outlook application and the communications portion of the International Computer Driver’s License (ICDL) Module 7: Information and Communication. This course is not open to students who have completed BUSTEC 127.

CISA 160 Project Management Techniques and Software 3 Units

Same As: MGMT 142
Advisory: ENGW 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; CISC 300
Hours: 54 hours LEC

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 171 Introduction to Adobe Acrobat 1 Unit

Hours: 9 hours LEC, 27 hours LAB

This course introduces Adobe Acrobat tools for creating, editing, reading, and printing Portable Document Format (PDF) documents. Topics include software navigation, converting other file types to PDF, and customizing output quality. Additional topics include modifying PDF files, placing documents on-line, adding digital signatures and security, creating presentations, creating dynamic forms, manipulating graphics, and using Acrobat in a review cycle.

CISA 305 Beginning Word Processing 2 Units

Advisory: CISC 300
General Education: AA/AAS Area II(b)
Course Transferable to CSU
Hours: 27 hours LEC, 27 hours LAB

This course introduces word processing operations, such as creating, editing, file management techniques, and printing text. Emphasis is on formatting and document production techniques to produce professional business documents used in today’s workplace. The course culminates with the study of intermediate level features such as merge, sort, graphics, macros, style, and templates.

CISA 306 Intermediate Word Processing 2 Units

Prerequisite: CISA 305 with a grade of “C” or better
Course Transferable to CSU
Hours: 27 hours LEC, 27 hours LAB

This course is a continuation of CISA 305 with an emphasis on applications for business documents and reports. In addition, this course includes desktop publishing techniques using word processing software, newsletter production, macro editing, complex document styles and commands, importing, linking and merging data from other applications into a word processing document.
CISA 308 Exploring Word Processing and Presentation Software 1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course introduces word processing and presentation software. The basic features and skills of creating, editing, and formatting documents; inserting tables and graphics, and enhancing word processed documents and presentations are covered.

CISA 315 Introduction to Electronic Spreadsheets 2 Units
Advisory: CISC 100 or 300
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course introduces the basic concepts and applications of an electronic spreadsheet program, including organizing, creating, and modifying a spreadsheet. It presents the basics of entering data in a worksheet using columns and rows, labels, and values; completing worksheet calculations using formulas and functions; and producing professional looking charts. In addition, the course introduces formatting, sorting, querying, and multi-sheet management. It also introduces 3-D cell referencing, financial functions, "Goal Seek", "VLOOKUP", "What If", and decision-making.

CISA 316 Intermediate Electronic Spreadsheets 2 Units
Prerequisite: CISA 315 with a grade of "C" or better
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course is a continuation of electronic worksheets with emphasis on workbook design and integration, template design, use of complex formulas, and built-in financial, logical, and database functions. It also includes look-up tables, the use of worksheet analysis tools, macros, and data integration.

CISA 318 Exploring Spreadsheet Software 1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course introduces spreadsheet software. Topics include navigating a spreadsheet, editing and formatting data, using formulas and functions, inserting and formatting charts and graphics, basic database features, and analyzing data.

CISA 320 Introduction to Database Management 1 Unit
Advisory: BUSTEC 300.1 and CISC 300
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 9 hours LEC; 27 hours LAB
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 3 Units
Prerequisite: CISA 320 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 2 Units
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course provides an overview of desktop publishing (DTP) and a major desktop publishing application program. It includes page layout skills needed to produce newsletters, brochures, flyers, reports, and 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 2 Units
Prerequisite: CISA 330 with a grade of "C" or better
Advisory: BUS 100
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course builds upon previous desktop publishing software concepts and study. Topics include working with 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 2 Units
Advisory: CISC 300
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course provides an in-depth look at using presentation software in business environments. Topics include elements of good presentation design, slide show techniques, integrating and linking of various software applications and media, animation effects, and the production of presentations using a variety of software and hardware.

CISA 345 Technical Marketing Applications 2 Units
Advisory: CISC 305
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
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 1 Unit
Advisory: CISC 305
Course Transferable to CSU
Hours: 18 hours LEC, 18 hours LAB
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 (Facebook Pages for business), microblogging (Twitter), visual bookmark boards (Pinterest), video-sharing websites and YouTube channels, Internet based photo and video sharing apps (Instagram and Snapchat), and image editing mobile apps specifically for marketing. It also includes tracking social media, apps and integration, link building, and monetization.
COMPUTER INFORMATION SCIENCE

CISC 100 Computer Fundamentals with Hands-on Lab 2 Units
Hours: 27 hours LEC; 27 hours LAB
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 295 Independent Studies in Computer Information Science - Core 1-3 Units
Prerequisite: None
Hours: 54-162 hours LAB
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 300 Computer Familiarization 1 Unit
Advisory: ENGRD 116 or ESLR 320, and the ability to touch type.
General Education: AA/AS Area II(b); AA/AS Area III(b)
Course Transferable to CSU
Hours: 18 hours LEC
This introductory course develops and improves the basic computer skills necessary for college-level courses, workplace productivity, and personal enrichment. It introduces common computer terminology and concepts, file management, electronic mail, online learning, productivity application software, and the Internet.

CISC 305 Introduction to the Internet 1 Unit
Advisory: CISC 300 and 320
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
This course introduces how the Internet works and how to effectively use basic Internet services. Topics include browser basics, search engines and search techniques, e-mail, the World Wide Web, Internet security, Internet resources, the Cloud, social networking, and building basic web pages using Hypertext Markup Language (HTML).

CISC 306 Introduction to Web Page Creation 1 Unit
Advisory: CISC 305
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
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 308 Exploring Computer Environments and the Internet 1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course introduces the fundamentals of microcomputer hardware, software, and computer networking, focusing on operating systems. The fundamentals of the Internet and Internet tools are also introduced.

CISC 310 Introduction to Computer Information Science 3 Units
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines information technology and its role in solving business problems. Topics include information systems, database management systems, networking, e-commerce, ethics and security, and computer systems hardware and software components. These concepts and related methods are applied through hands-on projects to develop computer-based solutions to business problems. (C-ID BUS 140; C-ID ITIS 120)

CISC 320 Operating Systems 1 Unit
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
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 1 Unit
Advisory: CISC 300 and ability to touch type.
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
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. Procedures for installing software, basic system administration and utilities, the Bourne again shell (BASH), command line interface utilities, and introduction to scripting topics are also covered.

CISC 324 Intermediate Linux Operating System 1 Unit
Prerequisite: CISC 323 with a grade of "C" or better
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
This course is a continuation of CISC 323. Topics include boot loaders, Linux devices, and command line interface (CLI) system management utilities. It covers advanced Bourne Again Shell (BASH) shell scripting, including looping and decision making logic structures. Alternates to the BASH shell and regular expressions and text stream editors are introduced.
CISC 350 Introduction to Data Communications 1 Unit
Advisory: CISC 300 and ability to touch type.
Course Transferable to CSU
Hours: 18 hours LEC
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 1 Unit
Advisory: CISC 320 and 350
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
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 Microcomputer Support Essentials - Preparation for A+ Certification 3 Units
Advisory: CISC 310, 320, and 350
Course Transferable to CSU
Hours: 42 hours LEC; 36 hours LAB
This course is the first of two courses covering support and repair for stand-alone personal computers. It includes training to troubleshoot hardware to a field replaceable component. Operating systems installation and simple networking are also covered. The course provides a firm grounding in the supporting software that runs the hardware and in distinguishing hardware from software problems. This course, along with CISC 363, prepares students for the Computing Technology Industry Association (CompTIA) A+ certification.

CISC 362 Microcomputer Support and Applications Support 2 Units
Corequisite: CISC 361
Advisory: CISA 305, 315, and 320
Course Transferable to CSU
Hours: 24 hours LEC; 36 hours LAB
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. Customer service and problem solving skills needed for success in a small or large business environment are introduced. Students serve as assistants in computer support in one of the American River College (ARC) computer classrooms/labs.

CISC 363 Microcomputer Support Technical - Preparation for A+ Certification 3 Units
Prerequisite: CISC 361 with a grade of "C" or better
Course Transferable to CSU
Hours: 42 hours LEC; 36 hours LAB
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 365 Independent Studies in Computer Information Science - Core 1-4 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to computer information science with a cooperating site supervisor. Students are advised to consult with the Computer Information Science Department faculty to review specific certificate and degree work experience requirements.

General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
**CISN 110 Networking Technologies - Preparation for N+ Certification**  
2 Units  
**Hours: 36 hours LEC**  
This is an introductory course in networking software and hardware. Topics include modems, communication protocols, local and wide area networks, intra- and inter-networks, network architectures, topologies, 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 - Preparation for N+ Certification**  
2 Units  
**Prerequisite: CISN 110 with a grade of “C” or better**  
**Hours: 36 hours LEC**  
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 118 Internet Protocol Subnetting**  
1 Unit  
**Advisory: CISN 110, and MATH 25 OR Math 41**  
**Hours: 18 hours LEC**  
This course introduces Transmission Control Protocol/Internet Protocol (TCP/IP) address assigning and subnetting. Topics include a review of binary, hexadecimal, and decimal numbering systems, classes of Internet Protocol (IP) addresses, Classless Inter-domain Routing (CIDR), and Variable Length Subnet Masks (VLSM). The future of IP addressing, version 4 (IPV4) and version 6 (IPV6), is covered.

**CISN 119 TCP/IP Protocols**  
3 Units  
**Advisory: CISC 350**  
**Hours: 54 hours LEC**  
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 Beginning Network Administration with Linux**  
3 Units  
**Prerequisite: CISC 323 with a grade of “C” or better**  
**Advisory: CISC 324**  
**Hours: 45 hours LEC; 27 hours LAB**  
This course covers the basics of installation and administration of the Linux Network Operating System. Topics include installation of the Linux server, connecting to a network, how to utilize network utilities, administer and maintain network printing, protect network data, and install network applications. This course also covers how to plan, access, and manage file systems. Also included are how to plan and implement login and file system security, administer and maintain user accounts, upgrade the kernel, and back up servers.

**CISN 121 Network Administration with Linux: Internet Services**  
2 Units  
**Prerequisite: CISN 120 with a grade of “C” or better**  
**Advisory: CISN 119**  
**Hours: 27 hours LEC; 27 hours LAB**  
This course covers Linux network administration of Internet services. Topics focus on server and TCP/IP services including the internet services daemon (XINETD), file transfer protocol (FTP), email, domain name service (DNS), firewall, secure shell, and proxy services. Installing and configuring the Apache Web Server and Webmin (the Linux web based administration tool) are introduced.

**CISN 140 CISCO Networking Academy (CCNA)tm: Networking Fundamentals**  
3 Units  
**Advisory: CISC 310, 320, or 350**  
**Hours: 54 hours LEC; 18 hours LAB**  
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It surveys data communication protocols, standards, hardware and software components and basic networking concepts. Topics include the Open Systems Interconnection (OSI) and TCP/IP models, IP addressing and subnetting, routing concepts, LAN media, Ethernet, and network configuration, troubleshooting and analysis. This is the first course in preparation for Cisco CCNA certification examination. ARC is a certified Cisco Networking Academy and all courses are taught by Cisco Certified Academy Instructors (CCAI).

**CISN 141 CISCO Networking Academy (CCNA)tm: Routing Protocols and Concepts**  
3 Units  
**Prerequisite: CISN 140 with a grade of “C” or better**  
**Hours: 54 hours LEC; 18 hours LAB**  
This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Topics include configuring, verifying, and troubleshooting Routing Information Protocol (RIP) version 1 and 2, Enhanced Interior Gateway Routing Protocol (EIGRP), and Open Shortest Path First (OSPF) routing protocols. Basic router configuration and troubleshooting, networking theory, and IP addressing are also covered. This is the second course in preparation for Cisco CCNA certification examination. ARC is a certified Cisco Networking Academy and all courses are taught by Cisco Certified Academy Instructors (CCAI).
CISN 142  CISCO Networking Academy (CCNA)tm: LAN Switching and Wireless  3 Units
Prerequisite: CISN 140 with a grade of “C” or better
Hours: 54 hours LEC; 18 hours LAB
This course focuses on Layer 2 switching protocols, concepts and technologies. Topic include hierarchy LAN design, basic switch concepts and configuration, Virtual LANs (VLANs), Virtual Trunking Protocol (VTP), Spanning Tree Protocol (STP), Inter-VLAN routing, basic wireless concepts and configuration. Implementing, verifying, securing and troubleshooting converged switching technologies in a small-to-medium network, including integrating wireless devices into a LAN, are also covered. This is the third course in preparation for Cisco CCNA certification examination. ARC is a certified Cisco Networking Academy and all courses are taught by Cisco Certified Academy Instructors (CCAI).

CISN 143  CISCO Networking Academy (CCNA)tm: Accessing the Wide Area Network  3 Units
Prerequisite: CISN 141 and 142 with grades of “C” or better
Hours: 54 hours LEC; 18 hours LAB
This course covers wide area networks (WAN) technologies to connect small- to medium-sized business networks. It focuses on Point to Point Protocol (PPP), Frame Relay, and broadband links. Topics include network security, traffic control and access control lists (ACLs), Virtual Private Networks (VPN) and network troubleshooting. IP addressing services Network Address Translation (NAT) and Dynamic Host Configuration Protocol (DHCP) are covered, and IPv6 is introduced. This is the fourth course in preparation for Cisco CCNA certification examination. ARC is a certified Cisco Networking Academy and all courses are taught by Cisco Certified Academy Instructors (CCAI).

CISN 300  Network Systems Administration  3 Units
Advisory: CISC 320, 350, and 351
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course covers the administration of a server in a client/server network. Topics include designing a basic network, installing and configuring a network operating system, and managing network security with user and group accounts. Additional topics are creating network shares, setting up and managing network printers, backing up servers, monitoring and setting access permissions on network resources, and establishing policies and procedures for network operations.

CISN 302  Intermediate Network Systems Administration  3 Units
Prerequisite: CISN 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course covers advanced system administration in a client/server network. Topics include configuring the server environment, implementing system policies, implementing and managing fault-tolerant disk volumes, and managing applications. Additional topics covered are managing connectivity for different network and client operating systems, as well as managing and implementing remote servers. This course covers material required for one of the Microsoft MCSE Networking certification examinations.

CISN 307  Windows Active Directory Services  3 Units
Prerequisite: CISN 302 with a grade of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course 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  3 Units
Prerequisite: CISN 302 with a grade of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course 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).

Computer Information Science - Programming

CISP 300  Algorithm Design/Problem Solving  3 Units
Advisory: CISC 310
General Education: AA/AS Area II(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
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  Assembly Language Programming for Microcomputers  4 Units
Prerequisite: CISP 360 or 480 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 54 hours LEC, 54 hours LAB
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. (C-ID COMP 142)
CISP 350 Database Programming 3 Units
Advisory: CISA 320 and CISC 310
General Education: AAAS Area II(b)
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 4 Units
Prerequisite: CISP 300 or 370 with a grade of "C" or better
General Education: AAAS Area II(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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. (C-ID COMP 112)

CISP 362 Programming for Mobile Devices I 4 Units
Corequisite: CISP 360
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course introduces mobile device programming, including devices such as cell phones and tablets. Topics include development tools, user interface design, documentation, testing, debugging, and publishing.

CISP 363 Programming for Mobile Devices II 4 Units
Prerequisite: CISP 362 with a grade of "C" or better
Corequisite: CISP 360
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course introduces intermediate level programming for mobile devices such as cell phones and tablets. Topics include the syntax of Java, object oriented programming, and mobile-specific techniques and considerations.

CISP 370 Beginning Visual Basic 4 Units
Advisory: CISC 310 and CISP 300
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
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 371 Intermediate Visual Basic 4 Units
Prerequisite: CISP 370 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course in intermediate Visual Basic (VB) programming further examines techniques to solve programming problems. Topics include classes, objects, properties, methods, procedures, functions, hierarchies, inheritance, multiple forms, components, tables, databases, datasets, queries, menus, toolbars, report creation, testing, and debugging.

CISP 380 Introduction to Programming with Java 4 Units
Prerequisite: CISP 300 or 370 with a grade of "C" or better
General Education: AAAS Area II(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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 400 Object Oriented Programming with C++ 4 Units
Prerequisite: CISP 360 or 480 with a grade of "C" or better
Advisory: CISC 323
General Education: AAAS Area II(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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, basic Linux/UNIX commands and make files are covered. (C-ID COMP 122)

CISP 401 Object Oriented Programming with Java 4 Units
Prerequisite: CISP 360 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course 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 4 Units
Prerequisite: CISP 400 or 401 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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. (C-ID COMP 132)

CISP 440 Discrete Structures for Computer Science 3 Units
Prerequisite: CISP 360 and MATH 370 with grades of "C" or better
Advisory: CISP 430
General Education: AAAS Area II(b); CSU Area B4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the discrete structures used in computer science with an emphasis on their applications. Topics include functions, relations, and sets; basic logic; proof techniques; basics of counting; graphs and trees; and discrete probability. (C-ID COMP 152)
CISP 480  Honors Introduction to Structured Programming  5 Units
Prerequisite: Placement into ENGWR 480 through the assessment process.
Advisory: CISC 310
General Education: AA/AS Area II(b)
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
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.

Computer Information Science - Security

CISS 300  Introduction to Information Systems Security  1 Unit
Advisory: CISC 320, 350, and 351
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
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 E-mail and public and private key exchange.

CISS 310  Network Security Fundamentals  3 Units
Advisory: CISS 119, 140, and 302
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
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. The required content of the Computing Technology Industry Association (CompTIA) Security+ certification exam is covered.

CISS 315  Ethical Hacking  3 Units
Advisory: CISC 300 and CISS 310
Course Transferable to CSU
Hours: 48 hours LEC, 28 hours LAB
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 325  Network Security and Firewalls  3 Units
Prerequisite: CISS 310 with a grade of "C" or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
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. Also covered is the configuration of network firewalls, and allowing access to key services while maintaining security. This course provides preparation for the Check Point Security’s “Check Point Certified Security Administrator” (CCSA) certification exam. This course is not open to students who have completed CISS 320 and CISS 330 at any other campus within the Los Rios District.

CISS 330  Implementing Internet Security and Firewalls  3 Units
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
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. Also covered is the configuration of network firewalls, and allowing access to key services while maintaining security. This course is not open to students who have completed CISS 325.

CISS 341  Implementing Windows Operating System Security  3 Units
Advisory: CISC 320, CISC 351, and CISS 310
Course Transferable to CSU
Hours: 45 hours LEC, 27 hours LAB
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  3 Units
Advisory: CISC 323 and CISS 310
Course Transferable to CSU
Hours: 45 hours LEC, 27 hours LAB
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  3 Units
Advisory: CISS 310
Course Transferable to CSU
Hours: 54 hours LEC
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, and development and implementation of disaster recovery policies and procedures.
**Computer Information Science - Web**

**CISW 300  Web Publishing** 3 Units

*Advisory: CISW 300 and 305*

*Course Transferable to CSU*

*Hours: 36 hours LEC; 54 hours LAB*

This course is an introduction to publishing on the World Wide Web. Topics include creating web pages with the Hyper Text Markup Language (HTML), organizing a series of pages into a web site, 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 web site.

**CISW 304  Cascading Style Sheets** 2 Units

*Prerequisite: CISW 300 with a grade of “C” or better*

*Course Transferable to CSU*

*Hours: 27 hours LEC; 27 hours LAB*

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** 4 Units

*Prerequisite: CISW 300 with a grade of “C” or better*

*Course Transferable to CSU*

*Hours: 54 hours LEC; 54 hours LAB*

This course builds upon previous web publishing concepts and study. The primary focus of this course is the systematic development of interactive web sites. Topics include cascading style sheets, dynamic HTML., forms, client-side scripting with JavaScript, Common Gateway Interface (CGI) scripting with Perl, and web-database interactivity.

**CISW 321  Web Site Development Using Dreamweaver** 3 Units

*Advisory: CISW 305 and CISW 300*

*Course Transferable to CSU*

*Hours: 36 hours LEC; 54 hours LAB*

This course covers the use of Dreamweaver, a visual web-authoring tool, to develop and publish websites. Topics include creating web pages that contain text, images, links, tables, forms, Cascading Style Sheets, and image maps, as well as how to enhance web pages with Flash elements and built-in scripting languages. Additional topics include developing effective website structures, using website management tools, website documentation, making global updates to a website, and using advanced Dreamweaver features.

**CISW 350  Imaging for the Web** 1 Unit

*Advisory: CISW 306 or CISW 350*

*Course Transferable to CSU*

*Hours: 18 hours LEC; 18 hours LAB*

This course takes an in-depth look at graphics for the Web. Industry standard graphic software is used to technically develop original graphics as well as to manipulate found imagery. Topics include understanding Web file formats, compressing graphics for use on the Web, editing and enhancing graphics, extracting elements, and using layers. This course also covers creating buttons and intuitive navigational elements, making background textures and images, and creating simple animation/video.

**CISW 355  Web Imaging Projects** 2 Units

*Prerequisite: ARTNM 402 or CISW 350 with a grade of “C” or better*

*Course Transferable to CSU*

*Hours: 27 hours LEC; 27 hours LAB*

This course is a continuation of CISW 350. It covers the creation of graphics for the Web for marketing and advertising. It introduces the steps, procedures, and common problems encountered when producing quality graphics for professional websites. Topics include compressing and upload times, cropping and resizing, digital camera imaging, retouching and fixing photographs, photographic special effects and filters, rasterizing text, and implementing backgrounds, buttons, themes, image maps, and videos. Industry photo editing applications are utilized.

**CISW 360  Beginning Flash** 3 Units

*Advisory: ARTNM 324, CISW 300, and CISW 350*

*Course Transferable to CSU*

*Hours: 36 hours LEC; 54 hours LAB*

This course introduces the design and the development of Flash-based interactive web sites and applications. Topics include the creation of simple vector-based graphics, buttons, animation and movies, and the integration of sound, raster graphics, and video.

**CISW 370  Designing Accessible Websites** 1 Unit

*Prerequisite: CISW 300 with a grade of “C” or better*

*Course Transferable to CSU*

*Hours: 18 hours LEC*

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** 4 Units

*Prerequisite: CISW 300 with a grade of “C” or better*

*Advisory: CSP 300 and CISW 310*

*Course Transferable to CSU*

*Hours: 54 hours LEC; 54 hours LAB*

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  Middleware Web Scripting** 4 Units

*Prerequisite: CISW 300 with a grade of “C” or better*

*Advisory: CSP 300 and CISW 310*

*Course Transferable to CSU*

*Hours: 54 hours LEC; 54 hours LAB*

This course emphasizes the creation of interactive web sites using a middleware scripting environment such as PHP or Active Server Pages (ASP). Topics include core features of the middleware scripting language, embedding server commands in HTML pages, control structures, functions, arrays, form validations, cookies, environmental variables, email applications, and database-driven web applications.
Dance Degree

Major Code: 010421A01

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.

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 Opportunities

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.

Requirements for Degree 18 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  Urban Hip Hop II (1)
DANCE 353  Urban 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)
DANCE 315  Jazz Dance V (1)
DANCE 316  Jazz Dance VI: African Jazz (1)
DANCE 321  Ballet II (1)
DANCE 322  Ballet III (1)
DANCE 323  Ballet IV (1)
DANCE 324  Ballet V (1)
DANCE 325  Ballet VI (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 336  Modern Dance VI (1)
DANCE 341  Ballroom Dance III (1)
DANCE 342  Ballroom Dance IV: 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 365  Tap Dance V: Rhythm Tap (1)
DANCE 377  Musical Theatre Dance I (2)
DANCE 390  Contemporary Dance I (1)
DANCE 400  Floor Barre (1)
DANCE 401  Pre-Pointe and Conditioning (1)

Choreography:
A minimum of 2 units from the following: ............................................................... 2
DANCE 402  Elements of Choreography (1)
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: Master Hip Hop Crew (3)
DANCE 432  Dance Performance: Contemporary Dance Alliance (3)

Associate Degree Requirements: The Dance Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
DANCE 300 Diverse Cultures in Dance 1 Unit
General Education: AA/AS Area III(a); AA/AS Area VI; CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Cultural Dance
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Cultural Dance
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 of belly 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 1 Unit
Course Family: Cultural Dance
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Cultural Dance
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Cultural Dance
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 304 with a grade of "C" or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Cultural Dance
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 305 with a grade of "C" or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Jazz Dance Technique
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Jazz Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 310 with a grade of "C" or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course continues to refine the basic skills begun in DANCE 310 and further instills proper alignment and technique for jazz dance. This course offers students 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
Course Family: Jazz Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 312 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB

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
Course Family: Jazz Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 313 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB

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
Course Family: Jazz Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 314 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB

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 316 Jazz Dance VI: African Jazz
Course Family: Jazz Dance Technique
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB

This course combines basic elements of jazz dance with the rhythmic patterns of African dance and Dunham dance technique. Allegro jumps, push turns, and isolations from African dance are mixed with the extensions, footwork, and American-style showmanship of jazz dance producing a fusion of dance styles that serves as a gateway to contemporary Dunham dance technique. No previous dance experience is required. Field trips may be required.

DANCE 320 Ballet I
Course Family: Ballet Technique
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB

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
Course Family: Ballet Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 320 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB

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 plie, and extending range of motion. This course is for students with some basic ballet training. Field trips may be required.

DANCE 322 Ballet III
Course Family: Ballet Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 321 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB

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
Course Family: Ballet Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 322 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB

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 1 Unit
Course Family: Ballet Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 323 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 325 Ballet VI 1 Unit
Course Family: Ballet Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 324 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course continues the study of ballet and builds upon the foundation of skills begun in DANCE 324. It includes new vocabulary words and barre exercises that prepare for partner work and pas de deux movement. Allegro movement, multiple turns, and adagio in center are the emphasis. This course is for students with previous ballet training. Field trips may be required.

DANCE 326 Ballet: Variations and Combinations 2 Units
Course Family: Ballet Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 324 or DANCE 325 or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
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 1 Unit
Course Family: Modern Dance Technique
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Modern Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 330 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Modern Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 332 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Modern Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 333 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Modern Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 334 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 336 Modern Dance VI
Course Family: Modern Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 335 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course continues the technique covered in DANCE 335 and introduces new vocabulary and explorations for essence, time, and reversing time. Retrograde, slow motion, and high-speed movements are studied and used as a springboard to choreography. This course is designed for dancers with experience in modern dance technique. Field trips may be required.

DANCE 340 Ballroom Dance
Course Family: Ballroom Dance Technique
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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
Course Family: Ballroom Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 340 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2 (effective Fall 2013)
Course Transferable to UC/CSU
Hours: 54 hours LAB
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
Course Family: Ballroom Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 341 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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
Course Family: Ballroom Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 341 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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
Course Family: Ballroom Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 342 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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
Course Family: Ballroom Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 343 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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
Course Family: Ballroom Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: Audition
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 Urban Hip Hop I 1 Unit
Course Family: Hip Hop Technique and Competition (see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course includes basic urban-style 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’, 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 Urban Hip Hop II 1 Unit
Course Family: Hip Hop Technique and Competition (see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 351 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 urban Hip Hop dance training. Field trips may be required.

DANCE 353 Urban Hip Hop III 1 Unit
Course Family: Hip Hop Technique and Competition (see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 352 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 on combinations that introduce new styles and increase the degree of difficulty with floor work. This course is for dancers with previous urban Hip Hop dance training. Field trips may be required.

DANCE 354 Urban Hip Hop IV 1 Unit
Course Family: Hip Hop Technique and Competition (see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 353 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 urban Hip Hop dance training. Field trips may be required.

DANCE 355 Urban Hip Hop V 1 Unit
Course Family: Hip Hop Technique and Competition (see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 354 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course continues the study of Hip Hop technique provided in DANCE 354. It furthers instruction with more sounds to each step and introduces the concepts of origin for Hip Hop dance. The emphasis is on Irish-based tap and the relaxation of the upper body during performance. This course is for students with a background in tap dance technique. Field trips may be required.

DANCE 360 Tap Dance I 1 Unit
Course Family: Tap Dance Technique (see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Tap Dance Technique (see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 360 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Tap Dance Technique (see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 361 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Tap Dance Technique (see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 362 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Tap Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 363 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 365 Tap Dance VI: Rhythm Tap 1 Unit
Course Family: Tap Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: Completion of DANCE 364 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course further studies the tap dance found in DANCE 364 with an emphasis on perfecting execution for rhythm-style tap dance. Combinations with faster tempos, changing tempos, a’ Capella tap, and call-and-response formats are included. This course is for students with a strong foundation in tap dance. Field trips may be required.

DANCE 377 Musical Theatre Dance I 2 Units
Course Family: Musical Theatre Dance
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: Completion of DANCE 310, 320, 330, 340, or 360, with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
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 1 Unit
Course Family: Contemporary Dance Technique
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 310, 320, and 330 with a grade of “C” or better, or audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 400 Floor Barre 1 Unit
Course Family: Foundations of Dance
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 312, 321, or 330 with a grade of “C” or better, or audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course builds on the technique for all genres of dance. An understanding of the major muscle groups and their role in dance movement is offered and efficient use of smaller muscles that are heavily relied upon for extension, turn out, and off the ground positions is examined. Dancers are exposed to movement theories, anti-gravity exercises, and imagery explorations that reveal problems of balance, focus, weight distribution, anxiety, and muscle tension. Developing a new sense of relaxed readiness, dance identity, and self image are key areas to be explored. Technique from DANCE 312, 321, and 330 is re-enforced. This course is designed for dancers who are not only willing to address their individual movement problems, but to re-evaluate their physical abilities and goals in dance. Previous dance technique is required.

DANCE 401 Pre-Pointe and Conditioning 1 Unit
Course Family: Foundations of Dance
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: DANCE 321, 322, 323, 324, or 325, with a grade of “C” or better, or audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 insuring 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 402 Elements of Choreography 1 Unit
Course Family: Foundations of Dance
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: Completion of DANCE 310, 320, 330, 340, 351, or 360 with a grade of “C” or better or by audition.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course covers the basic elements of choreography and provides an opportunity to explore basic choreographic structure. Choreographic concepts are introduced, developed, applied, and adapted to various dance styles in a manner appropriate for most styles and levels of dance. The emphasis is on the choreographic process. This course is for students with some dance background. Field trips may be required.
DANCE 403 Choreographic Studies  
2 Units  
Course Family: Foundations of Dance  
(see page 38 - limitation on active participatory courses)  
Enrollment Limitation: DANCE 402 with a grade of "C" or better or by audition.  
General Education: AA/AS Area III(a); CSU Area C1; CSU Area E2  
Course Transferable to UC/CSU  
Hours: 18 hours LEC; 54 hours LAB  
This course furthers the study of choreographic elements begun in DANCE 402. It 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 imitation and exploration that may uncover inner layers of untapped movement and gesture, including the study of selected influential choreographers and their work. This course is for students with previous dance and choreography training. Field trips may be required.

DANCE 406 Introduction to Improvisation  
2 Units  
Course Family: Foundations of Dance  
(see page 38 - limitation on active participatory courses)  
Enrollment Limitation: DANCE 312, 320, or 330 with a grade of "C" or better, or audition.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 18 hours LEC; 54 hours LAB  
This course builds on the technique covered in DANCE 312, DANCE 320, and DANCE 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 spring boards 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  
3 Units  
Course Family: Dance Composition and Production  
(see page 38 - limitation on active participatory courses)  
Enrollment Limitation: Audition  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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  
3 Units  
Course Family: Dance Composition and Production  
(see page 38 - limitation on active participatory courses)  
Enrollment Limitation: Audition.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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  
3 Units  
Course Family: Dance Composition and Production  
(see page 38 - limitation on active participatory courses)  
Enrollment Limitation: Audition  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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  
3 Units  
Course Family: Dance Performance Group  
(see page 38 - limitation on active participatory courses)  
Enrollment Limitation: Audition  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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:
Master Hip Hop Crew 3 Units
Course Family: Dance Performance Group
(see page 38 - limitation on active participatory courses)
Advisory: DANCE 352 or 353
Enrollment Limitation: By audition. Student must be able to do a toe stand, wave, kick at least 90 degrees, exhibit floor work, jump three feet up landing in proper progression, and execute double turns with a bent knee.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course furthers the dance technique offered in DANCE 315 and DANCE 353 by providing an opportunity for performing these dance styles in a theatre setting. It presents performance technique as a situational learning experience in a non-competitive venue. Creating a showcase for Hip Hop, Freestyle, African jazz and other dance crew styles, this course facilitates performance technique using both improvised and choreographed material. The focus is on commitment to performance training for presentational dance and includes basic injury prevention, planning for success, and how to handle errors on stage as they happen. Topics include strict focus, professional attitudes, and theatre etiquette. This course is designed for students with considerable backgrounds in Hip Hop, jazz, African jazz or other cultural dance technique.

DANCE 432 Dance Performance:
Contemporary Dance Alliance 3 Units
Course Family: Dance Performance Group
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: Audition
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Course Family: Dance Performance Group
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a) (effective Summer 2016); CSU Area C1; CSU Area E2
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 1-3 Units
General Education: AA/AS Area III(a)
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWRI 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to dance with a cooperating site supervisor. Students are advised to consult with the Dance Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b); AA/AS Area III(a)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
## DEGREES AND CERTIFICATES

### Deaf Culture & American Sign Language Studies Degree and Certificate

**Major Code, degree:** 011311A01  
**Major Code, certificate:** 011311C01  

This program 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 development of skills related to paraprofessional services in an individual or group setting in an educational or social services agency which serves Deaf clients.

### 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 Opportunities

This program prepare 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.

See losrios.edu/gainful-emp-info/gedt.php?major=011311C01 for Gainful Employment Disclosure.

### Requirements for Degree or Certificate  

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>DEAF 310</td>
<td>American Sign Language I</td>
<td>4</td>
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<tr>
<td>DEAF 312</td>
<td>American Sign Language II</td>
<td>4</td>
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<tr>
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<td>American Sign Language III</td>
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<td>DEAF 316</td>
<td>American Sign Language IV</td>
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<td>DEAF 320</td>
<td>Fingerspelling, Classifiers and Numbers</td>
<td>0.5 - 1</td>
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<td>DEAF 351</td>
<td>Introduction to American Deaf Culture</td>
<td>3</td>
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<tr>
<td>DEAF 352</td>
<td>Introduction to American Deaf Education</td>
<td>3</td>
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<tr>
<td>DEAF 355</td>
<td>Audism and Inequality of the Deaf</td>
<td>3</td>
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<tr>
<td>DEAF 370</td>
<td>Linguistics of American Sign Language</td>
<td>3</td>
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<td>DEAF 318</td>
<td>American Sign Language V</td>
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<tr>
<td>DEAF 380</td>
<td>American Sign Language Literature</td>
<td>3</td>
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And a minimum of 3 units from the following:

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<th>Course Title</th>
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<tbody>
<tr>
<td>DEAF 316</td>
<td>American Sign Language IV</td>
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<tr>
<td>DEAF 355</td>
<td>Audism and Inequality of the Deaf</td>
</tr>
<tr>
<td>DEAF 370</td>
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</tr>
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</table>

### Associate Degree Requirements

The Deaf Culture & American Sign Language Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Deaf Culture and American Sign Language Studies

DEAF 310 American Sign Language I 4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area 1; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
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. The emphasis is on non-speech communication. Topics include grammatical features such as adjective descriptors, differentiation between cardinal/ordinal numbers, contrastive structure, temporal aspect markers and temporal sequencing, conversational skills, narrative skills, and discussions with peers. This course is formerly known as SILA 305.

DEAF 312 American Sign Language II 4 Units
Prerequisite: DEAF 310 or SILA 305 with a grade of “C” or better.
Advisory: Eligible for ENGRD 310 AND ENGRD 312 AND ENGWR 300; OR ESLR 340 and ESLW 340.
General Education: AAAS Area 1; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This is the second in a series of five courses in American Sign Language (ASL). The emphasis is on nonverbal 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 formerly known as SILA 306.

DEAF 314 American Sign Language III 4 Units
Prerequisite: DEAF 312 or SILA 306 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 and ESLW 340.
General Education: AAAS Area 1; CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
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. It provides an understanding of deaf cultural processes by identifying behaviors and norms from activities assigned in the class. It also includes dialogs that involve asking, empathizing, negotiating and agreeing or disagreeing. The emphasis is on non-speech communication. This course is formerly known as SILA 315.

DEAF 316 American Sign Language IV 4 Units
Prerequisite: DEAF 314 or SILA 315 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area 1 (effective Summer 2015); CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is the fourth in a series of 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 emphasis is on non-speech communication. This course is formerly known as SILA 316.

DEAF 318 American Sign Language V 4 Units
Prerequisite: DEAF 316 or SILA 316 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area 1; CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This is the last course in a series of five courses in American Sign Language (ASL). It prepares for the effective communication with Deaf people. It emphasizes expressive communication skills that involve narrating unforgettable moments, telling about accidents, and storytelling. It incorporates information and activities previously learned about Deaf culture into these narratives. The emphasis is on non-speech communication. This course is formerly known as SILA 318.

DEAF 320 Fingerspelling, Classifiers and Numbers .5-1 Units
Prerequisite: DEAF 310 or SILA 305 with a grade of “C” or better
Course Transferable to CSU
Hours: 27-54 hours LAB
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 such as DVDs and recorded video clips in ASL that incorporate fingerspelling. Coursework includes study topics integrated with expressive and receptive fingerspelling, classifiers, and ASL numbers techniques. 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.

DEAF 351 Introduction to American Deaf Culture 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area 2(b); AAAS Area 6; CSU Area D3; CSU Area D7
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of four institutions which have critical impact on the psycho-social development of Deaf people: family, education, work, and society. It provides awareness and sensitivity to the unique challenges of deafhood and how they influence personal-social and communication competencies of the Deaf person. Selected visits to community events may be required. This course is formerly known as SILA 330.

DEAF 352 Introduction to American Deaf Education 3 Units
Prerequisite: DEAF 351 or SILA 330 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course surveys topics related to educating Deaf children, adults, and individuals with additional disabilities. It also covers teaching methods and philosophies, school placement issues, child development, and methods of addressing developmental and linguistic stages. Selected visits to a residential Deaf school in Fremont and/or a local mainstreaming/Deaf program school may be required. This course is formerly known as SILA 332.
DEAF 355  Audism and Inequality of the Deaf  3 Units
Prerequisite: DEAF 351 or SILA 330 with a grade of "C" or better
Advisory: SOC 320; AND eligible for ENGRD 310 or ENGRD 312
AND ENGW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3;
CSU Area D7
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 inequality of Deaf people in the United States.

DEAF 370  Linguistics of
American Sign Language  3 Units
Prerequisite: DEAF 316 or SILA 316 with a grade of "C" or better, or
placement through the assessment process.
General Education: AA/AS Area II(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
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  3 Units
Prerequisite: DEAF 314 or SILA 315 with a grade of "C" or better
General Education: AA/AS Area I (effective Summer 2015); AA/AS Area
VI (effective Summer 2015); CSU Area C2
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces American Sign Language (ASL) literature
genres such as folklore and folktale stories, 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 390  Introduction to
the Interpreting Profession  .5 Units
Prerequisite: DEAF 310 or SILA 305 with a grade of "C" or better
Course Transferable to CSU
Hours: 9 hours LEC
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 hands-on experiences are incorporated.
Pass/No Pass only. This course is formerly known as SILA 362.

DEAF 495  Independent Study  1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
DEGREES AND CERTIFICATES

Design Technology Degree and Certificate
Major Code, degree: 011284A01
Major Code, certificate: 011284C01

This degree and 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.

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 college program advisors.

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. Critique and analyze the success or failure of the process and the solutions.
• 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.

Career Opportunities
A student who has earned a degree or 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.

See losrios.edu/gainful-emp-info/gedt.php?major=011284C01 for Gainful Employment Disclosure.

Requirements for Degree or Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>DESGN 300</td>
<td>Introduction to Design Resources</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 302</td>
<td>Technical Documentation with CADD</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 310</td>
<td>Graphic Analysis and Documentation</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 320</td>
<td>Three Dimensional Graphics and Design</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 325</td>
<td>Architectural Modeling and Design</td>
<td>3</td>
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<td>DESGN 328</td>
<td>Engineering Modeling and Design</td>
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<td>DESGN 330</td>
<td>Engineering Systems and Design</td>
<td>5</td>
</tr>
<tr>
<td>DESGN 340</td>
<td>Architecture and Construction</td>
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</tr>
<tr>
<td>DESGN 350</td>
<td>Surveying and Land Planning (S)</td>
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</tr>
<tr>
<td>or ENGR 310</td>
<td>Engineering Survey Measurements (4)</td>
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<tr>
<td>DESGN 360</td>
<td>Commercial Engineering Design and Drafting</td>
<td>5</td>
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</table>

Associate Degree Requirements: The Design Technology Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Engineering Technology Degree and Certificate

Major Code, degree: 011108A01
Major Code, certificate: 011108C01

This degree and 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.

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 college program advisors.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• solve technical engineering problems by applying design and engineering process methodologies. Critique and analyze the success or failure of the process and the solutions.
• apply the appropriate use of representational media, including study and presentation models (electronic and physical), freestanding and conceptural 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.

Career Opportunities

Upon completion of the degree or 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.

See losrios.edu/gainful-emp-info/gedt.php?major=011108C01 for Gainful Employment Disclosure.

Requirements for Degree or Certificate 40 - 43 Units

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry</td>
<td>4 - 5</td>
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<tr>
<td>or CHEM 310</td>
<td>Chemical Calculations</td>
<td>4</td>
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<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
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<td>Intermediate Electronic Spreadsheets</td>
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<tr>
<td>DESGN 300</td>
<td>Introduction to Design Resources</td>
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<tr>
<td>DESGN 302</td>
<td>Technical Documentation with CADD</td>
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<tr>
<td>DESGN 310</td>
<td>Graphic Analysis and Documentation</td>
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<td>or ENGR 312</td>
<td>Engineering Graphics</td>
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<td>DESGN 328</td>
<td>Engineering Modeling and Design</td>
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<td>DESGN 330</td>
<td>Engineering Systems and Design</td>
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<tr>
<td>DESGN 340</td>
<td>Architecture and Construction</td>
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<td>or DESGN 360</td>
<td>Commercial Engineering Design and Drafting</td>
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<tr>
<td>DESGN 350</td>
<td>Surveying and Land Planning</td>
<td>4 - 5</td>
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<tr>
<td>or ENGR 310</td>
<td>Engineering Survey Measurements</td>
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<tr>
<td>MATH 330</td>
<td>Trigonometry</td>
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<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3 - 4</td>
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<tr>
<td>or PHYS 350</td>
<td>General Physics</td>
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</table>

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

Design Technology

DESIGN 100 Introduction to Computer Aided Drafting and Design (CADD) 3 Units

Hours: 36 hours LEC, 72 hours LAB

This course is an introduction to computer-assisted drafting and design (CADD) and basic technical drawing. It covers orthographic and isometric projection concepts, utilizing CADD to produce basic technical drawings. It introduces basic drawings from architecture, mechanical design, electronics and space planning.

DESIGN 298 Work Experience in Design Technology 1-4 Units

Advisory: Eligible for ENGR 310 or ENGR 312 AND ENGWR 300; OR ESLR 340 AND ESLWR 340.

Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the architectural and engineering field with a cooperating site supervisor. Students are advised to consult with the Design Technology Department faculty to review specific certificate and degree work experience requirements.

General Education: AA/AS Area III(b)

Hours: 60-300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.

DESGN 300 Introduction to Design Resources 3 Units
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.
Course Transferable to CSU
Hours: 36 hours LEC; 72 hours LAB
This course is a survey of the resources that are used in the architectural and engineering professions. It introduces construction materials and their properties and characteristics that affect construction processes. Environmental and sustainable materials, sustainable building certification, and rating systems are also covered.

DESGN 302 Technical Documentation with CADD 3 Units
Prerequisite: DESGN 100 with a grade of “C” or better
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.
Course Transferable to CSU
Hours: 36 hours LEC; 72 hours LAB
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 drafting and file management topics. This course was formerly DESGN 102.

DESGN 310 Graphic Analysis and Documentation 3 Units
Prerequisite: DESGN 100 with a grade of “C” or better
Advisory: DESGN 302 (Technical Documentation with CADD), AND 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.
Course Transferable to CSU
Hours: 36 hours LEC; 72 hours LAB
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 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 3 Units
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.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 72 hours LAB
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 freehand perspective graphics, physical mass modeling prototyping, and virtual concept computer modeling are also covered. The course also includes individual and team studio situations, oral presentations, and formal critiques.

DESGN 325 Architectural Modeling and Design 3 Units
Prerequisite: DESGN 100 (Introduction to Computer Aided Drafting and Design (CADD)) and DESGN 320 (Three Dimensional Graphics and Design) with a grade of “C” or better; AND DESGN 300 (Introduction to Design Resources) or ENGR 307 (Industrial Materials Testing) with a grade of “C” or better
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.
Course Transferable to CSU
Hours: 36 hours LEC; 72 hours LAB
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 Architectural. Topics include the procedures and techniques for producing architectural models and associated technical documentation and presentation. Course projects emphasize sustainable design concepts and include all phases of design.

DESGN 328 Engineering Modeling and Design 3 Units
Prerequisite: DESGN 100 with a grade of “C” or better
Advisory: DESGN 320; 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.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 72 hours LAB
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 330 Engineering Systems and Design 5 Units
Prerequisite: DESGN 302; AND either DESGN 300 or DESGN 320; AND either DESGN 325 or DESGN 328 with grades of “C” or better.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC; 108 hours LAB
This course covers machine and mechanical 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 products utilizing orthographics, sections, auxiliaries, tolerance reviews, Geometric Dimension and Tolerancing (GD&T), as well as the creation of facility and production plans. It emphasizes the current American National Standards Institute (ANSI) standard for geometric dimension and tolerancing and its application to working drawings. It also emphasizes green technology concerns, such as water and energy conservation in industrial, commercial, or municipal settings.
DESIGN & ENGINEERING TECHNOLOGY

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DESIGN AND ENGINEERING TECHNOLOGY

DESIGN 340 Architecture and Construction 5 Units
Prerequisite: DESGN 302; AND either DESGN 300 or DESGN 320; AND either DESGN 325 or DESGN 328 with grades of "C" or better.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC; 108 hours LAB
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.

DESIGN 350 Surveying and Land Planning 5 Units
Prerequisite: DESGN 302; AND either DESGN 300 or DESGN 320; AND either DESGN 325 or DESGN 328 or HORT 329 with grades of "C" or better.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC; 108 hours LAB
This course examines elementary surveying principles and basic civil design and drafting techniques. It covers the instruments, methods, and theories necessary for the measurement of distance, direction, angles, and elevations. Surveyed data is applied to create site layouts, site models, profiles, cut and fill volumes, and traverse computations. Additionally, environmental and sustainable design practices are applied to a variety of projects.

DESIGN 360 Commercial Engineering Design and Drafting 5 Units
Prerequisite: DESGN 302; AND either DESGN 300 or DESGN 320; AND either DESGN 325 or DESGN 328 with grades of "C" or better.
Course Transferable to CSU
Hours: 54 hours LEC; 108 hours LAB
This course employs individual and group 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 freehand concept drawings, physical modeling, and electronic media applications.

DESIGN 495 Independent Studies in Design Technology 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.

DESIGN 498 Work Experience in Design Technology 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the advanced manufacturing field or the architectural and engineering field with a cooperating site supervisor. Students are advised to consult with the Design Technology Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b) (effective Summer 2018)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
DEGREES AND CERTIFICATES

Diesel Technology Degree

Major Code: 011039A01

The Diesel Technology 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.

Career Opportunities

This degree prepares the students as diesel technicians in the following areas of specialty: brakes, engine repair, hydraulics, and electrical.

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.

Requirements for Degree  28 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

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

Diesel Technology Certificate

Major Code: 011039C01

The Diesel Technology certificate provides training in diesel technology. Topics include diesel brakes, hydraulics, electrical systems, and power trains.

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.

Requirements for Certificate  24 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

Career Opportunities

This certificate prepares the students for various entry level positions in the diesel repair industry, such as entry level technician.

See losrios.edu/gainful-emp-info/gedt.php?major=011039C01 for Gainful Employment Disclosure.

Clean Diesel Technology Certificate

Major Code: 011040C01

The Clean Diesel Technology certificate covers the diesel engine systems. Topics include biodiesel fuel and fuel systems, clean diesel technology, and clean diesel software support.

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 Opportunities

This certificate prepares the students for various entry level positions in the diesel repair industry, such as entry level technician, hydraulic technician, and heavy equipment service advisor.

See losrios.edu/gainful-emp-info/gedt.php?major=011040C01 for Gainful Employment Disclosure.
Diesel Engine Technology Certificate
Major Code: 011281C01
This certificate is designed for students seeking employment in the diesel industry specializing in diesel engine repair.

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 Opportunities
The diesel industry is growing and is in need of highly trained/skilled technicians that can step into the workforce.

Requirements for Certificate  20 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

Clean Diesel Hybrid Technology Certificate
Major Code: 011285C01
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.

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 Opportunities
Various entry-level positions exist in the hybrid diesel repair industry, such as entry-level technician and hybrid diagnostic technician.

Requirements for Certificate  16 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

Clean Diesel Management Systems Certificate
Major Code: 011280C01
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.

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 Opportunities
Various entry-level positions exist in the hybrid diesel repair industry, such as entry-level technician and hybrid diagnostic technician.

Requirements for Certificate  23 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

Light Duty Diesel Truck Certificate
Major Code: 011282C01
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.

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 turbocharger 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 Opportunities
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.

Requirements for Certificate  16 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
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
Preventive Maintenance Certificate

Major Code: 011041C01

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.

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 Opportunities

This certificate prepares the students for various entry level positions in the diesel repair industry.

Requirements for Certificate 12 Units

DCDT 100 Diesel Technology Basics ................................................. 4
DCDT 101 Diesel Preventive Maintenance ............................................ 4
DCDT 107 Hybrid Diesel Power Trains ................................................. 4

Diesel/Clean Diesel Technology

DCDT 100 Diesel Technology Basics 4 Units
Hours: 72 hours LEC

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 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course introduces the field of clean diesel technology and preventative maintenance. It covers proper safety and hazardous waste training, use of basic hand and power tools, and the basic workings of the diesel engine.

DCDT 102 Biodiesel Fuel and Fuel Systems 4 Units
Hours: 54 hours LEC; 54 hours LAB

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 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course provides a complete overview of the clean diesel engine system. Topics include fuel injection systems, emission regulations, and diesel emission control systems.

DCDT 104 Clean Diesel Rebuild, Retrofit, Repower, Retire 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course covers clean diesel rebuilding, repowering, retrofitting, or retiring of equipment decisions. Topics include rebuilding, replacement, and retirement of diesel systems and components.

DCDT 107 Hybrid Diesel Power Trains 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course covers diesel hybrid power trains found in current hybrid technology. Topics include basic diesel hybrid power trains, hybrid power modes, and power electronic carriers.

DCDT 108 Hybrid Diesel High Voltage Systems 4 Units
Hours: 54 hours LEC; 54 hours LAB

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 4 Units
Hours: 54 hours LEC; 54 hours LAB

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 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course covers basic engine principles for diesel engine repair. It covers disassembly and reassembly of diesel engine systems, including cleaning and safe removal of engines, fuel injection systems, valve trains, and engine heads.

DCDT 111 Clean Natural Gas Engine Repair 4 Units
Hours: 54 hours LEC; 54 hours LAB

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 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course covers 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 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course covers diesel hybrid motor/generator found in current hybrid technologies. Topics include basic diesel hybrid motor/generator, hybrid power modes, and power electronic components.

DCDT 120 Basic Hydraulic Principles of Diesel Technology 4 Units
Hours: 54 hours LEC; 54 hours LAB

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 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course covers the operation of diesel brake systems and components. Topics include band, shoe, caliper, and full disc brakes.

DCDT 140 Diesel Electrical Systems 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course covers the operation of diesel electrical systems. Topics include sensors used in emission control, electrical circuits, test instruments, charging systems, and electrical starting systems.

DCDT 142 Diesel Emission Control Systems 4 Units
Hours: 54 hours LEC; 54 hours LAB

This course covers the emission control system of the diesel engine. Topics include performance maintenance and emissions control within emission limits.
DCDT 150  Diesel Power Trains  4 Units  
*Hours: 54 hours LEC; 54 hours LAB*

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  4 Units  
*Hours: 72 hours LEC*

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  4 Units  
*Hours: 72 hours LEC*

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 201  Advanced Light Duty Diesel/Green Diesel Technology  4 Units  
*Same As: AT 157*  
*Hours: 54 hours LEC; 54 hours LAB*

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 281  Diesel Shop Operations  4 Units  
*Hours: 72 hours LEC*

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  1-4 Units  
*Same As: ACT 298*  
*Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.*  
*Enrollment Limitation: Students must be in a paid or unpaid internship, and have not already successfully completed a Work Experience course.*  
*AND ENGWR 300; OR ESLR 340 AND ESLW 340.*  
*Advisory: Eligible for ENGRD 310 or ENGRD 312*  
*Hours: 60-300 hours LAB*

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 ours of related work experience is required for each additional unit. All students are required to attend the first class 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.
The ARC Early Childhood Education Program

The course work in the ARC Early Childhood Education department is approved by the California Commission on Teacher Credentialing as meeting the requirements for the California Child Development Educational Permits. Students who complete selected certificates in the ECE program, along with required experience, are recommended by the American River College faculty to the Commission on Teacher Credentialing for direct issuance of Child Development Permits.

All students enrolled in coursework that requires lab work at our campus Child Development Center or at an off-campus facility, must show proof of TB Clearance (done within the previous 6 months), and documentation of all required immunizations.

DEGREES AND CERTIFICATES

Early Childhood Education Degree

Major Code: 011089/A01

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.

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 children’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 Opportunities

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.

Requirements for Degree  38 Units

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ECE 300</td>
<td>Introduction to Principles and Practices in Early Childhood Education</td>
<td>3</td>
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<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td>3</td>
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<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
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<tr>
<td>ECE 320</td>
<td>Curriculum and Interactions in Early Childhood Education</td>
<td>4</td>
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<tr>
<td>ECE 321</td>
<td>Advanced Practicum in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE 325</td>
<td>Positive Guidance Strategies with Young Children</td>
<td>3</td>
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<tr>
<td>ECE 326</td>
<td>Making Learning Visible Through Observation and Documentation</td>
<td>3</td>
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<tr>
<td>ECE 331</td>
<td>Care and Education of Infants and Toddlers</td>
<td>3</td>
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<tr>
<td>ECE 404</td>
<td>Children with Special Needs</td>
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<tr>
<td>ECE 415</td>
<td>Children’s Health, Safety and Nutrition (3)</td>
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<tr>
<td>or NUTRI 320</td>
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<tr>
<td>ECE 430</td>
<td>Culture and Diversity in Early Childhood Education</td>
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A minimum of 3 units from the following:

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<tbody>
<tr>
<td>ECE 305</td>
<td>Introduction to Family Child Care (1)</td>
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<tr>
<td>ECE 316</td>
<td>Mass Media and Young Children (1)</td>
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<td>ECE 330</td>
<td>Infant and Toddler Development (3)</td>
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<td>ECE 342</td>
<td>Constructive Math and Science in Early Childhood Education (3)</td>
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<tr>
<td>ECE 343</td>
<td>Language and Literacy Development in Early Childhood (3)</td>
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(continued on next page)
EARLY CHILDHOOD EDUCATION

(Continued from previous page)

ECE 320  Administration I: Programs in Early Childhood Education (3)
ECE 422  Adult Supervision: Mentoring in a Collaborative Learning Setting (2)
ECE 423  Leadership in Diversity (3)
ECE 455  Environment Rating Scales in Early Childhood Programs (1)

Associate Degree Requirements: The Early Childhood Education Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Early Childhood Education A.S. for Transfer Degree

Major Code, CSU GE: 011443A01
Major Code, IGETC: 011443A02

The Associate in Science degree in Early Childhood Education (ECE) for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of early childhood education. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.

The degree is designed to facilitate students’ 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.

The Associate in Science degree in ECE for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to certain California State University campuses.

The Associate in Science degree in ECE for Transfer (A.S.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements. The ECE courses required in this program are part of the CA Curriculum Alignment Project, Lower Division 8 coursework.

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 children’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.

Requirements for Degree 26 Units

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

Certificates Leading to Child Development Permits

ARC also offers a sequence of certificates that guide students in working their way up the California Development Permit matrix. Students who complete the following certificates will, upon verification of required experience, be recommended to the Commission on Teacher Credentialing for issuance of Child Development Permits.
Associate Teacher Certificate
Major Code: 011343C01
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.

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 Opportunities
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.

Requirements for Certificate 13 Units

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Teacher Certificate
Major Code: 011329C01
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.

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 children'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 Opportunities
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.

Requirements for Certificate 45 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ECE 300</td>
<td>Introduction to Principles and Practices in Early Childhood Education</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
</tr>
<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Curriculum and Interactions in Early Childhood Education</td>
</tr>
<tr>
<td>ECE 326</td>
<td>Making Learning Visible Through Observation and Documentation</td>
</tr>
<tr>
<td>ECE 331</td>
<td>Care and Education of Infants and Toddlers</td>
</tr>
<tr>
<td>ECE 415</td>
<td>Children's Health, Safety and Nutrition (3)</td>
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<tr>
<td>or NUTRI 320</td>
<td>Children's Health, Safety and Nutrition (3)</td>
</tr>
<tr>
<td>ECE 430</td>
<td>Culture and Diversity in Early Childhood Education</td>
</tr>
</tbody>
</table>

And a minimum of 16 units from the following: | 16 |

At least one course from each of the following four areas listed in the ARC graduation requirements: (1) Math/Science: Natural Science or a course satisfying the Mathematics Competency requirement; (2) English: Language & Rationality; (3) Humanities; and (4) Social Sciences: Social & Behavioral Sciences.

Master Teacher Certificate
Major Code: 011328C01
This certificate builds on the teacher level certificate with additional coursework on adult supervision, emphasizing the mentors role in the development of early childhood education professionals. It also includes six units of specialized study, allowing students to select a particular focus (i.e. the arts, health and safety, children's literature, culture and diversity, curriculum, and infant care). Upon completion of this certificate, the student is eligible to be a lead teacher in a private (Title 22) early care and education program,
and, with documented work experience teaching children and supervising staff, 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.

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 anti-bias, respectful, supportive, and challenging 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 systematic 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, art, and social relationships.
- apply principles and practices for teaching that pull from a selected concentration of early childhood studies.
- create a continuing professional growth plan and advocate for public policy that supports children, families, 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 Opportunities

Upon completion of this certificate, the individual is eligible to be a lead teacher in a private (Title 22) early care and education program, and with documented work experience teaching children and supervising staff, 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.

See losrios.edu/gainful-emp-info/gedt.php?major=011328C01 for Gainful Employment Disclosure.

Core Requirements for Certificate 47 Units

<table>
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<th>Course</th>
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<td>PSYC 372</td>
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</tr>
<tr>
<td>MUIVI 341</td>
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</table>

And a minimum of 16 units from the following:

At least one course from each of the following four areas listed in the ARC graduation requirements: (1) Math/Science: Natural Science or a course satisfying the Mathematics Competency requirement; (2) English: Language & Rationality; (3) Humanities; and (4) Social Sciences: Social and Behavioral Sciences.

Master Teacher Specialization Concentrations:

Art with Children 53 Units

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<td>PSYC 365</td>
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<tr>
<td>or NUTRI 320</td>
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Children's Health, Safety and Nutrition 53 Units

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<td>ECE 430</td>
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<td>PSYC 365</td>
<td>3</td>
</tr>
<tr>
<td>or NUTRI 320</td>
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Culture and Diversity 53 Units

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<tbody>
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<td>ECE 430</td>
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<td>PSYC 365</td>
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Drama with Children 53 Units

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<td>TA 404</td>
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<td>or TA 406</td>
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Infant Care 53 Units

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<td>MUIVI 341</td>
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</table>
Site Supervisor Certificate

Major Code: 011330C01

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.

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 Opportunities

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011330C01 for Gainful Employment Disclosure.

Requirements for Certificate 60 Units

<table>
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<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
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<tr>
<td>or PSYCH 372</td>
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<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
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<td>ECE 320</td>
<td>Curriculum and Interactions in Early Childhood Education</td>
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<td>ECE 321</td>
<td>Advanced Practicum in Early Childhood Education</td>
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<tr>
<td>ECE 326</td>
<td>Making Learning Visible Through Observation and Documentation</td>
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</table>

And a minimum of 23 units from the following: 23 units

- ECE 311 Child and Education of Infants and Toddlers..........................3
- ECE 415 Children’s Health, Safety and Nutrition (3)........................53
- or NUTRI 320 Children’s Health, Safety and Nutrition (3)....................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 16 units that fulfill the ARC General Education, units must be completed in all four of the following areas: Language/Rationality; Humanities; Behavioral Social Science; and Math OR Science. The additional 7 units may also be courses that fulfill the General Education requirement OR any other ECE units.

The Early Childhood Education Department is also authorized to recommend students to the Commission on Teacher Credentialing for the Child Development Assistant Permit and for the Program Director Permit. Students who wish to be recommended for the Child Development Assistant Permit must have completed ECE 312/PSYCH 372, and ECE 300 for a total of six units. Students who wish to be recommended for the Child Development Program Director Permit must verify completion of a BA degree, possess the Child Development Teacher Certificate, and complete ECE 420, 422 and 424. This permit is required for those supervising multiple publicly-funded early childhood education sites.

SPECIALIST CERTIFICATES

The following certificates are designed for students who seek courses which will prepare them to work with a specific age group or program type. The following certificates meet the minimum requirements for teaching in or administering privately-funded early care and education.

Culture & Diversity Specialist Certificate

Major Code: 011489C01

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, child development, health and safety practices, the child in the context of the family and community, age-appropriate anti-bias curriculum and a supervised field/lab experience. Additionally, it offers a specialization in culture and diversity issues within early childhood education settings, including the study of the values, issues, and counseling needs of diverse populations, as well as the cognitive and emotional aspects of prejudice as it relates to institutional and individual discrimination.

Upon completion of this specialization certificate, the individual is eligible to be a teacher in a private (Title 22) early care and education program. With verified work experience, the individual 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 public (Title 5) early care and education program.

(continued on next page)
## ECE 430  Culture and Diversity in Early Childhood Education .......................... 3

## ECE 320  Curriculum and Interactions in Early Childhood Education .......................... 4

## ECE 314  The Child, the Family and the Community .................................... 3

## ECE 312  Child Development (3) .................................................................. 3

## ECE 300  Introduction to Principles and Practices in

#### Requirements for Certificate 19 Units

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<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
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<td>ECE 320</td>
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<td>ECE 430</td>
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<td>PSYC 365</td>
<td>Issues of Diverse Populations (3)</td>
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<tr>
<td>or HSER 330</td>
<td>Issues of Diverse Populations (3)</td>
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</table>

#### Curriculum Specialist Certificate

**Major Code: 011095C01**

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 development and the care of education of infants/toddlers in group settings along with information for lactation consultants.

#### Requirements for Certificate  23 Units

<table>
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<td>Introduction to Principles and Practices in Early Childhood Education</td>
<td>3</td>
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<td>Curriculum and Interactions in Early Childhood Education</td>
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<td>ECE 321</td>
<td>Advanced Practicum in Early Childhood Education</td>
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A minimum of 6 units from the following: 6

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<tr>
<td>ECE 342</td>
<td>Constructive Math and Science in Early Childhood Education (3)</td>
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<tr>
<td>ECE 343</td>
<td>Language and Literacy Development in Early Childhood (3)</td>
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<td>ECE 361</td>
<td>Introducing Young Children to Visual Arts (3)</td>
</tr>
<tr>
<td>ECE 363</td>
<td>Music and Movement with Young Children (3)</td>
</tr>
</tbody>
</table>

#### Student Learning Outcomes

**Upon completion of this program, the student will be able to:**

- build on systematic observations of children’s behavior, interests, and the classroom environment to design, implement, and evaluate developmentally appropriate learning activities for young children.
- formulate an educational philosophy to guide in the curriculum of an early care and education program.
- evaluate curriculum for sound pedagogy, content, and breadth, including planning for the learning environment, the daily routines, and the individual needs of the children.

#### Career Opportunities

Upon completion of this specialization certificate, students are eligible to be teachers in privately funded (Title 22) early care and education programs and/or associate teachers in publicly funded (Title 5) programs serving young children and their families.

#### Infant Specialist Certificate

**Major Code: 011094C01**

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 development and the care of education of infants/toddlers in group settings along with information for lactation consultants.

#### Student Learning Outcomes

**Upon completion of this program, the student will be able to:**

- evaluate and apply knowledge of infant development to create infant and family programs that are respectful, supportive, and challenging 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 systematic 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 developmentally effective curriculum and teaching plans that connect knowledge of academic content to meaningful and challenging learning environments for infants and toddlers.
- demonstrate practices in maintaining health/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 Opportunities**

Upon completion of this certificate, students exceed the minimum requirements to be a teacher of infants and toddlers in privately funded early childhood education programs (as required by Title 22 of the California Social Services Code of Regulations). Additionally, students qualify as an associate teacher of infants and toddlers in publicly funded early childhood education programs (as required by Title 5 California Code of Regulations).

See losrios.edu/gainful-emp-info/gedt.php?major=011094C01 for Gainful Employment Disclosure.

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<td>ECE 314 The Child, the Family and the Community</td>
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<td>ECE 320 Curriculum and Interactions in Early Childhood Education</td>
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<td>ECE 330 Infant and Toddler Development</td>
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<td>ECE 331 Care and Education of Infants and Toddlers</td>
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<tr>
<td>ECE 415 Children's Health, Safety and Nutrition 3</td>
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</tr>
<tr>
<td>HLACT 302 Fundamentals of Lactation Consultant Assisting</td>
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**Management Specialist Certificate**

**Major Code: 011446C01**

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 a supervised field/lab experience. Additionally, it covers administration and management issues relating to the operation of center-based early care and education programs.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

- apply child development principles to development of a philosophy statement to guide the design and operation of a child development program.
- appraise and implement quality care for young children in group settings, including curriculum and environments for children birth through adolescence.
- manage respectful and reciprocal interactions between children, families and teachers.
- utilize knowledge of developmentally appropriate curriculum, environments, observation and guidance to assess one's own strengths and weaknesses in working with young children.
- critique and implement practices in maintaining health/safety standards and preventing infectious disease in group care settings.
- support and implement licensing requirements for privately and publicly funded child development programs.
- demonstrate leadership in staffing, budgets, enrollment, professional development and program implementation for privately and publicly funded programs.

**Career Opportunities**

Upon completion of this certificate and with additional documented experience, the student exceeds the minimum educational requirements for employment as a director/manager of a privately funded early care and education program. The minimum requirements are outlined in Title 22 (Department of Social Services) regulations for child care licensing.

See losrios.edu/gainful-emp-info/gedt.php?major=011446C01 for Gainful Employment Disclosure.

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<td>ECE 424 Adult Supervision: Mentoring in a Collaborative Learning Setting</td>
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**School Age Certificate**

**Major Code: 011098C01**

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 a supervised field/lab experience. Additionally, it covers specific school-age program requirements and activities.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

- distinguish developmental levels and appropriate activities for children in grades K-8 using systematic observation.
- create an appropriate and flexible environment for a variety of before- and after-school programs and full-day programs.
- analyze and apply positive guidance strategies that teach school-age children self-discipline and effective and positive interactions among a diverse group of peers.
- demonstrate respectful and positive interactions among a diverse population of children, families, staff and the community.
- implement practices in maintaining health and safety standards and preventing infectious disease in group settings with children ages five through fourteen.

**Career Opportunities**

Upon completion of this certificate and with appropriate documented experience, the student exceeds the minimum requirements for employment as a teacher in privately funded before-and-after school child care programs. These requirements are outlined in Title 22 (Department of Social Services) regulations for child care licensing.

(continued on next page)
EARLY CHILDHOOD EDUCATION

(School Age Certificate continued)

See losrios.edu/gainful-emp-info/gedt.php?major=011098C01 for Gainful Employment Disclosure.

Requirements for Certificate 22 Units

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<td>or PSYC 372</td>
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</tr>
<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
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<td>ECE 320</td>
<td>Curriculum and Interactions in Early Childhood Education</td>
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<tr>
<td>ECE 358</td>
<td>Activities for the School-Age Child</td>
<td>3</td>
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<tr>
<td>ECE 415</td>
<td>Children's Health, Safety and Nutrition (3)</td>
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<tr>
<td>or NUTRI 320</td>
<td>Children's Health, Safety and Nutrition (3)</td>
<td>3</td>
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</tbody>
</table>

Special Needs Specialist Certificate

Major Code: 011096C01

This certificate provides the educational coursework that serves as the core curriculum for the early childhood education field with a specific focus on working with children with special needs. Topics include an introduction to the profession, observation techniques, age-appropriate curriculum, and a supervised field/lab experience in a fully-inclusive classroom. Additionally, this specialization includes a course introducing the student to issues relating to speech and language development.

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 respectful, supportive, and challenging for all children.
• design curriculum and programs for children with special needs that build respectful, reciprocal family relationships and support optimal development and learning both at home and in group care settings.
• incorporate systematic assessment strategies using observation, documentation, and interpretation in order to guide decisions about support for children with special needs.

Career Opportunities

Upon completion of this specialization certificate, students are eligible to be teachers in fully-inclusive, privately funded (Title 22) early care and education programs and/or associate teachers in fully-inclusive, publicly funded (Title 5) programs serving young children and their families.

Requirements for Certificate 19 Units

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ECE 300</td>
<td>Introduction to Principles and Practices in Early Childhood Education</td>
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<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
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<td>Child Development (3)</td>
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<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
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<tr>
<td>ECE 404</td>
<td>Children with Special Needs</td>
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<tr>
<td>ECE 407</td>
<td>Curriculum and Strategies for Children with Special Needs</td>
<td>4</td>
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<tr>
<td>SLPA 300</td>
<td>Introduction to Communication Disorders</td>
<td>3</td>
</tr>
</tbody>
</table>

DEPARTMENT CERTIFICATES

Assistant Teacher Certificate

This certificate provides entry-level coursework in preparation to be an assistant teacher in an early care and education program. Topics include an introduction to the field and child development theories and principles. Upon completion of this certificate, the student is eligible to apply for the Assistant Teacher Child Development Permit with the Commission on Teacher Credentialing.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• describe and apply principles of physical, intellectual, social and emotional development that occur between birth and the end of adolescence.
• support the teaching team in the planning and implementation of developmentally appropriate indoor and outdoor environments for young children.
• compare and contrast common curriculum approaches and program types.
• identify components of quality in early childhood education programs.
• record objective and detailed observations of children's behavior.

Career Opportunities

With an Assistant Teacher Certificate, students are eligible to work in private and public early care and education programs as assistant teachers. These programs include infant/toddler centers, preschools, and before-and-after school programs serving school-age children. Additionally, assistant teachers can operate their own family child care home.

Requirements for Certificate 6 Units

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Family Child Care Certificate

This certificate provides a foundation in early childhood education and includes courses specific to family child care providers. Additional topics include child development theories and principles, the child in the context of the family, and general health and safety practices.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• describe and implement developmentally appropriate activities for infant through school-age children.
• demonstrate respectful and reciprocal interactions with children and their families.
• construct home-style, appropriate environments for group care of young children.
• evaluate components of a quality family child care program and apply California licensing regulations.
• demonstrate practices in maintaining health/safety standards and preventing infectious disease in family child care settings.
• create a parent contract for family child care.
• assess needs of families and refer them to community resources.
Career Opportunities

Upon completion of this certificate, the student is prepared to offer quality in-home child care to families in the community.

Requirements for Certificate 10 Units

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<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tr>
<td>ECE 305</td>
<td>Introduction to Family Child Care</td>
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<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td>3</td>
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<td>ECE 314</td>
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Early Childhood Education

ECE 107 Nutrition Basics for the Childcare Provider-Basic Nutritional Needs of Children 0-5 1 Unit

Same As: NUTRI 107
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 18 hours LEC

This course examines scientific information on the basic nutritional needs of children 0-5 years of age. Topics include macronutrient and micronutrient functions, dietary requirements, and growth and activity patterns in infants, toddlers, and preschool age children. It is designed to satisfy education requirements for childcare providers, including those advancing toward a Master Teacher Certificate. This course is not open to students who have completed NUTRI 107.

ECE 108 Nutrition Basics for the Childcare Provider - Diet, Health, & Physical Activity 0-5 years 1 Unit

Same As: NUTRI 108
Prerequisite: ECE 107 or NUTRI 107 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 18 hours LEC

This course provides scientific information on the relationship between diet, physical activity, and health of children 0-5 years of age. Topics include health implications of dietary deficiencies and excesses, childhood obesity, and physical activity. It is designed to satisfy education requirements for childcare providers, including those advancing toward the Master Teacher Certificate. This course is not open to students who have completed NUTRI 108.

ECE 109 Nutrition Basics for the Childcare Provider - Healthy Foods and Meal Planning 1 Unit

Same As: NUTRI 109
Prerequisite: ECE 108 or NUTRI 108 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 18 hours LEC

This course provides practical information for planning healthy meals and diets for children 0-5 years of age. It focuses on creative ways to incorporate fruits and vegetables, how to address neophobia, teaching opportunities at meal and snack time, the importance of a balanced diet, and meal and snack planning. It is designed to satisfy education requirements for childcare providers, including those advancing toward the Master Teacher Certificate. This course is not open to students who have completed NUTRI 109.

ECE 300 Introduction to Principles and Practices in Early Childhood Education 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC

This course is an introduction to early childhood education, including an overview of the history of the field, evolution of professional practices and ethics, educational principles that support child development from birth through the school-age years, and teaching practices based on observation, documentation, and interpretation of children's behavior. Site visits may be required. (C-ID ECE 120)

ECE 305 Introduction to Family Child Care 1 Unit

Course Transferable to CSU
Hours: 18 hours LEC

This course is an orientation to family child care. It includes state and local regulations, issues of health and safety, curriculum, behavior guidance, and business management of child care programs operating in the provider's home.

ECE 312 Child Development 3 Units

Same As: PSYC 372
Advisory: ENGRW 102 and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better.
General Education: AA/AS Area V(b); CSU Area D9; CSU Area E1; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is a study of the growth and development of children from the prenatal stage through adolescence. For each stage of development, the physical, cognitive, linguistic, social-moral, and emotional aspects of development, with attention to both typical and as well as atypical development in each area, are discussed. Included are the influences of culture, family, and the interaction of maturational and environmental factors. This material is designed as a foundation for early care and education, teaching, and parenting. This course is not open to students who have completed PSYC 372. (C-ID CDEV 100)

ECE 314 The Child, the Family and the Community 3 Units

Same As: PSYC 372
Advisory: ENGRW 102 and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better.
General Education: AA/AS Area V(b); CSU Area D7; IGETC Area 4G
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course covers the child's development within the family and the community. It focuses on socialization methods, parenting style, and the impact of family, culture, school, community, and the media on the child’s development. This course offers the opportunity to research and review the diverse community resources available to support the child and the family. (C-ID CDEV 110)

ECE 316 Mass Media and Young Children 1 Unit

Course Transferable to CSU
Hours: 18 hours LEC

This course covers the impact of mass media on socializing young children with emphasis on the influence of mass media on development, including the impact of television, movies, commercial advertising, books, and popular music. It also includes strategies for minimizing the negative influences of mass media on children.
ECE 320  
**Curriculum and Interactions in Early Childhood Education**  
4 Units  
**Prerequisite:** ECE 300 AND ECE 312 or PSYC 372 with a grade of "C" or better.  
**Advisory:** Eligible for ENGRD 116 AND ENGWR 101; OR ESRW 320 AND ESLW 320.  
**Enrollment Limitation:** Students must show proof of negative tuberculosis as well as immunizations for influenza, pertussis, and measles prior to participating in the lab.  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC; 108 hours LAB  
This course provides supervised experience working with children in an early childhood setting. Topics include principles of curriculum development, classroom design, and child guidance, with opportunity to apply these key teaching principles in practical situations. (C-ID ECE 130)

ECE 321  
**Advanced Practicum in Early Childhood Education**  
4 Units  
**Prerequisite:** ECE 320 with a grade of "C" or better  
**Enrollment Limitation:** All students enrolled in coursework that requires lab work at our campus Child Development Center or at off-campus facility must show proof of TB Clearance (done within the previous 6 months), and documentation of all required immunizations.  
**Course Transferable to CSU**  
**Hours:** 36 hours LEC; 108 hours LAB  
This advanced course provides supervised experience as a teacher in an early childhood education program. It is aimed at leadership in the areas of developing environments for learning, child observation and assessment, documentation of children's work, behavior guidance, group management, collaborative teaching, building relationships with families, and effective preparation and implementation of curriculum. (C-ID ECE 210)

ECE 325  
**Positive Guidance Strategies with Young Children**  
3 Units  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC  
This course introduces strategies that teachers and parents 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. Developmental stages of children's behavior, positive discipline techniques, and promotion of social-emotional skills are also covered.

ECE 326  
**Making Learning Visible Through Observation and Documentation**  
3 Units  
**Prerequisite:** ECE 300 with a grade of "C" or better  
**Corequisite:** ECE 312  
**Advisory:** Eligible for ENGRD 116 AND ENGWR 101; OR ESLW 320 AND ESLW 320  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC  
This course links critical and reflective thinking to observation and assessment of young children'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. Site visits may be required. (C-ID ECE 200)

ECE 330  
**Infant and Toddler Development**  
3 Units  
**General Education:** AA/AS Area III(b)  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC  
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**  
3 Units  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC  
This course applies 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 birth to 36 months.

ECE 342  
**Constructive Math and Science in Early Childhood Education**  
3 Units  
**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC  
The course is an introduction to the constructivist approach to teaching math and science concepts in early childhood education. The content and teaching techniques support the perspective that children construct knowledge through a dynamic, interactive process that facilitates their development of working theories 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, including California's Early Learning Foundations and Frameworks.

ECE 343  
**Language and Literacy Development in Early Childhood**  
3 Units  
**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC  
This course prepares early childhood educators and others working with young children to recognize, understand, and enhance the emergent language and literacy experiences and skills of young children. The knowledge of developmentally appropriate language and literacy practices improves early childhood educators' ability to support young children in the early years (birth to five years) to build a strong foundation for learning to read and write in the primary grades. Topics include an overview of the teachers' role in developing appropriate language and literacy experiences for young children, including ways to support the child learning English as a second language.

ECE 350  
**Introduction to Elementary Teaching with Field Experience**  
3 Units  
**Same As:** ENGED 324  
**Advisory:** ECE 312 or PSYC 372  
**Enrollment Limitation:** Before students can attend the school site for field work, they are required to show proof of TB clearance. They may also need to complete a fingerprint clearance through the cooperating school district, if the district requires it.  
**General Education:** AA/AS Area III(b)  
**Course Transferable to CSU**  
**Hours:** 36 hours LEC; 54 hours LAB
This course introduces the concepts and issues related to teaching diverse learners in today’s contemporary schools, kindergarten through grade 12 (K-12). Topics include teaching as a profession and career, historical and philosophical foundations of the American education system, contemporary educational issues, California’s content standards and frameworks, and teacher performance standards. In addition to class time, this course requires a minimum of 45 hours of structured fieldwork in public school elementary classrooms that represent California’s diverse student population, and includes cooperation with campus-approved certificated classroom teachers. This course is not open to students who have completed ENGED 324, (C-ID EDUC 200)

**ECE 356 Programs for the School-Age Child 3 Units**
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRD 300; or ESLR 340 AND ESLR 340
Course Transferable to CSU
Hours: 54 hours LEC

This course introduces students to the fundamentals of planning, implementing, and evaluating programs for out-of-school time programs (before-school, after-school, and summer programming) of school-age children (K-8). It emphasizes day-to-day program operation, teaching strategies, developmental levels of the school-age child, and age-appropriate activities. Program visits to observe and evaluate school-age programs in our community may be required.

**ECE 358 Activities for the School-Age Child 3 Units**
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRD 300; OR ESLR 340 AND ESLR 340
Course Transferable to CSU
Hours: 54 hours LEC

This course focuses on design, implementation, and evaluation of developmentally appropriate activities for the school-age child (K-8). Curriculum areas include games, construction, art, music and movement, science and nature, and drama. It explores other topics including cooperative program planning, environments, guidance techniques, and the importance of positive interpersonal relationships between the adults and the children in the program. This course may require students to conduct observations in a school-age classroom.

**ECE 361 Introducing Young Children to Visual Arts 3 Units**
General Education: AA/AS Area I
Course Transferable to CSU
Hours: 54 hours LEC

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. The focus is 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. Included are strategies for designing early childhood environments that promote children’s exploration of visual arts.

**ECE 363 Music and Movement with Young Children 3 Units**
General Education: AA/AS Area I
Course Transferable to CSU
Hours: 54 hours LEC

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 404 Children with Special Needs 3 Units**
Prerequisite: ECE 312 or PSYC 372 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC

This course introduces the variations in development of children with special needs ages birth through eight and the resulting impact on families. It includes an overview of historical and societal influences, laws relating to children with special needs, and the identification and referral process. Observations in public or private children’s centers, schools, and agencies may be required.

**ECE 407 Curriculum and Strategies for Children with Special Needs 4 Units**
Prerequisite: ECE 404 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC, 54 hours LAB

This course provides supervised experience working with young children with special needs in inclusive early care and education settings with an option to work in a non-inclusive classroom (e.g., a diagnostic preschool, preschool communication class, social communication class, or autism special day classroom). This course covers curriculum and intervention strategies for working with children with special needs and partnering with their families as well as the importance of cultural competence. It focuses on the use of observation and assessment in meeting the individualized needs of children and families in inclusive and non-inclusive classrooms. Topics include integration strategies, classroom environments, and individualized instructional strategies for children. This course emphasizes creating modifications, accommodations, and/or adaptations to the environment, routines and curriculum, role of the teacher in partnering with families, and working with interdisciplinary teams.

**ECE 414 CPR and Pediatric First Aid 1.5 Units**
Same As: HEED 311
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRD 300; OR ESLR 340 AND ESLR 340.
Course Transferable to UC/CSU
Hours: 27 hours LEC

This course meets the requirements for American Red Cross certification in California Child Care Health & Safety Training which includes adult, child, and infant CPR and pediatric first aid. It also includes legal considerations, avoiding disease transmission, responding to sudden illnesses and injuries, and recognition of common childhood diseases. This course is not open to students who have completed HEED 311.

**ECE 415 Children’s Health, Safety and Nutrition 3 Units**
Same As: NUTRI 320
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRD 300; OR ESLR 340 AND ESLR 340.
Course Transferable to CSU
Hours: 54 hours LEC

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. (C-ID ECE 220)
ECE 420  Administration I: Programs in Early Childhood Education  3 Units
Prerequisite: ECE 300 with a grade of “C” or better; and either ECE 312 or PSYC 372 with grades of “C” or better; Or, BA in Child Development or related field from a regionally accredited college or university.
Advisory: ECE 320
Course Transferable to CSU
Hours: 54 hours LEC
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  3 Units
Prerequisite: ECE 420 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
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 care and education program.

ECE 424  Adult Supervision: Mentoring in a Collaborative Learning Setting  2 Units
Prerequisite: ECE 314 and 320 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC
This course covers principles and methods of supervising student teachers, volunteers, staff, and other adults in early care and 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 a classroom setting. This course satisfies the adult supervision requirement for the CA 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  3 Units
Advisory: Eligible for ENGRD 116 AND ENGRW 101; OR ESLR 320 AND ESLW 320.
General Education: AA/AS Area V(b); AA/AS Area VI
Course Transferable to CSU
Hours: 54 hours LEC
This course examines the development of social identities in diverse societies, including theoretical and practical implications of oppression and privilege as they apply to young children, families, early childhood programs, and teaching practices. Various classroom strategies are explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. It also includes self-examination and reflection on issues related to social identity, stereotypes and bias, social and educational access, media, and schooling. (C-ID ECE 230)

ECE 432  Leadership in Diversity  3 Units
Prerequisite: ECE 430 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course expands upon ideas developed in ECE 430. It offers strategies for early childhood teachers and leaders, both novice and experienced, who are starting or deepening their anti-bias approach to leading early childhood programs. Key aspects of the leader's role in building and sustaining anti-bias early childhood education programs are explored, including the development of policies and procedures and practical activities that foster the transformation of early childhood teachers and teaching. It critically discusses ways to create a climate where conflict, risk-taking, discomfort, and differences are positively acknowledged and supported. Additionally, it provides a framework for working with families and supporting family partnership and leadership.

ECE 455  Environment Rating Scales in Early Childhood Programs  1 Unit
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 18 hours LEC
This course examines Environment Rating Scales (ERS): Infant/Toddler (ITERS), Early Childhood (ECERS), School-Age Care Programs (SACERS), and Family Child Care (FCCERS) as tools for quality improvement in a variety of child development programs. It emphasizes theory and best practices in order to evaluate classrooms, materials, and interactions between adults and children. Site visits will be required.

ECE 495  Independent Studies in Early Childhood Education  1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
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.

### Economics A.A. for Transfer Degree

**Major Code, CSU GE:** 010720A01  
**Major Code, IGETC:** 010720A02

The Associate in Arts degree in Economics for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Arts degree in Economics for Transfer (AA-T) may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

Students interested in transferring to a CSU campus to pursue a bachelor’s degree in Economics should meet with a counselor to confirm the courses required for lower-division preparation in the major.

### 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 on households and businesses.
- evaluate economic models to explore the consequences of macroeconomic events and the probable consequences of macroeconomic policy proposals on 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.

### Requirements for Degree  18 Units

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<tr>
<td>ECON 302  Principles of Macroeconomics ....................................................... 3</td>
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<td>ECON 304  Principles of Microeconomics ........................................................ 3</td>
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<tr>
<td>PSYC 330  Introductory Statistics for the Behavioral Sciences (3)</td>
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<tr>
<td>STAT 300  Introduction to Probability and Statistics (4)</td>
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<td>STAT 305  Statway, Part II (6)</td>
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<tr>
<td>MATH 340  Calculus for Business and Economics (3)</td>
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<td>MATH 400  Calculus I (5)</td>
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<td>ACCT 301  Financial Accounting (4)</td>
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<tr>
<td>ACCT 311  Managerial Accounting (4)</td>
</tr>
<tr>
<td>CISA 315  Introduction to Electronic Spreadsheets (2)</td>
</tr>
<tr>
<td>CISC 310  Introduction to Computer Information Science (3)</td>
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<tr>
<td>CSP 360  Introduction to Structured Programming (4)</td>
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<tr>
<td>CSP 370  Beginning Visual Basic (4)</td>
</tr>
<tr>
<td>MATH 336  College Algebra (5)</td>
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<tr>
<td>MATH 370  Pre-Calculus Mathematics (5)</td>
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<tr>
<td>MATH 401  Calculus II (5)</td>
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<tr>
<td>MATH 402  Calculus III (5)</td>
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<tr>
<td>MATH 410  Introduction to Linear Algebra (3)</td>
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</tbody>
</table>

**Associate in Arts for Transfer Degree Requirements:** 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) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.
# Economics

## ECON 302 Principles of Macroeconomics 3 Units
**Prerequisite:** MATH 100, 104, or 132 with a grade of “C” or better, or placement through the assessment process.
**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
**General Education:** AA/AS Area V(b); CSU Area D2; IGETC Area 4B
**Course Transferable to UC/CSU**
**Hours:** 54 hours LEC

This course is an introduction to macroeconomics. It is concerned with the economic well-being of the national economy. Topics include supply, demand, aggregate supply, aggregate demand, equilibrium, money, banking, taxation, inflation, employment, and economic growth. (C-ID ECON 202)

## ECON 304 Principles of Microeconomics 3 Units
**Prerequisite:** MATH 100, 104, or 132 with a grade of “C” or better, or placement through the assessment process.
**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
**General Education:** AA/AS Area V(b); CSU Area D2; IGETC Area 4B
**Course Transferable to UC/CSU**
**Hours:** 54 hours LEC

This course covers the interaction with individuals and business firms in the marketplace to determine prices, output, employment, and efficient utilization of economic resources. Topics include marginal utility, costs of production, and natural resource economics. This course also covers resource allocation under conditions of competition, monopoly, oligopoly, and monopolistic competition. (C-ID ECON 201)

## ECON 305 Introduction to Economies of Africa 3 Units
**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
**General Education:** AA/AS Area V(b); CSU Area D; IGETC Area 4
**Course Transferable to UC/CSU**
**Hours:** 54 hours LEC

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 320 Concepts in Personal Finance 3 Units
**Same As:** BUS 320
**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
**General Education:** AA/AS Area V(b); AA/AS Area III(b); CSU Area D2
**Course Transferable to CSU**
**Hours:** 54 hours LEC

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 1-3 Units
**Prerequisite:** None
**Course Transferable to CSU**
**Hours:** 54-162 hours LAB

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.
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

Electronic Systems Technology Degree and Certificate

The Electronics Systems Technology Degree or Certificate combines broad-based electronic and telecommunications training with specialty areas such as robotics, fiber optics, programmable interface controllers (PICs), and stamp micro-controllers.

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 Opportunities

This degree or 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 Television Engineers (NARTE) for the Federal Communication Commission (FCC) General Radio Telephone License. Obtaining the degree or certificate improves the opportunities for quality employment and career advancement.

See losrios.edu/gainful-emp-info/gedt.php?major=011564C01 for Gainful Employment Disclosure.

Requirements for Degree or Certificate  36 Units

1st 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 253  Industrial Communication Systems Support .................................... 4
ET 335  Integrated Circuits with Computer Applications .............................. 4
ET 380  Introduction to Electronic Communications .................................... 4
ET 381  Electronic Communication Regulations .......................................... 3
ET 420  Microcontrollers and Digital Signal Processors ............................... 4

Associate Degree Requirements: The Electronic Systems Technology Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Mechatronics Degree and Certificate
Major Code, degree: 011562A01
Major Code, certificate: 011562C01
This degree or 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.

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 (direct current), AC (alternating current), 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 Opportunities
This degree or certificate prepares the student for the following technical and supervisory career opportunities: industrial mechanical/electrical systems technician, food processing machine service technician, coordinator, field service technician, and mechanical electrical systems installer.

See losrios.edu/gainful-emp-info/gedt.php?major=011562C01 for Gainful Employment Disclosure.

Requirements for Degree or Certificate
27 Units
DESIGN 100* Introduction to Computer Aided Drafting and Design (CADD).................................3
DESIGN 302 Technical Documentation with CADD..................................................3
DESIGN 310 Graphic Analysis and Documentation .....................................................3
DESIGN 328 Engineering Modeling and Design .......................................................3
ET 193 or ET 199 Introduction to Robotics and Sensors (4)........................................4
ET 197 Advanced Mechatronics (4)........................................................................4
ET 302 Principles of Electricity and Electronics ....................................................4
WELD 300 Introduction to Welding.........................................................................3
Associate Degree Requirements: The Mechatronics Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Advanced Electronics and Telecommunications Certificate
Major Code: 011502C01
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.

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 Opportunities
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.

See losrios.edu/gainful-emp-info/gedt.php?major=011502C01 for Gainful Employment Disclosure.

Requirements for Certificate
17 Units
ET T15 Fiber Optics and Telecommunications 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
ET 335 Integrated Circuits with Computer Applications (4)

Biomedical Equipment Technology Certificate
Major Code: 010950C01
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.
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 unit.
- 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 Opportunities

This program prepares electronics technology students for a biomedical technician intern or trainee position. See losrios.edu/gainful-emp-info/gedt.php?major=010950C01 for Gainful Employment Disclosure.

Requirements for Certificate 20 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ET 302</td>
<td>Principles of Electricity and Electronics</td>
<td>4</td>
</tr>
<tr>
<td>ET 312</td>
<td>Mathematics for Circuit Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ET 322</td>
<td>Semiconductors and Nanotechnology (4)</td>
<td>4</td>
</tr>
<tr>
<td>or ET 335</td>
<td>Integrated Circuits with Computer Applications</td>
<td>4</td>
</tr>
<tr>
<td>or ET 380</td>
<td>Introduction to Electronic Communications (4)</td>
<td>4</td>
</tr>
<tr>
<td>ET 425</td>
<td>Introduction to Biomedical Equipment Technology</td>
<td>4</td>
</tr>
<tr>
<td>ET 426</td>
<td>Advanced Biomedical Equipment Technology</td>
<td>4</td>
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<tr>
<td>ET 388</td>
<td>Fiber Optics</td>
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A minimum of 1 unit from the following:

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</thead>
<tbody>
<tr>
<td>ET 253</td>
<td>Industrial Communication Systems Support</td>
<td>4</td>
</tr>
<tr>
<td>ET 302</td>
<td>Principles of Electricity and Electronics</td>
<td>4</td>
</tr>
<tr>
<td>ET 385</td>
<td>Digital Home Technology Integration</td>
<td>4</td>
</tr>
<tr>
<td>ET 388</td>
<td>Fiber Optics</td>
<td>4</td>
</tr>
</tbody>
</table>

Digital Home Technology Integration Certificate

Major Code: 010806C01

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.

Requirements for Certificate 20 Units

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<tr>
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<td>ET 425</td>
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<td>Fiber Optics</td>
<td>4</td>
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</table>

Digital Repair and Upgrade Technician Certificate

Major Code: 011601C01

This certificate combines basic electronics theory and application with computer repair and support skills. Topics including high-tech soldering along with component and system level electronics are focused on in the electrical area. Computer repair skills and support are covered in the computer area.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the rules of electrical safety for working with personal computers and associated equipment.
- describe the terminology used for working with personal computers.
- categorize the components inside a personal computer.
- upgrade and install new and updated software programs.
- research and download updated system drivers from the Internet.
- compare and evaluate solder connections in accordance with industry standards.
- evaluate operational characteristics of electronic components and devices operating under normal and abnormal conditions.
- differentiate resistance, capacitance and inductive devices and their operating characteristics.
- analyze and troubleshoot basic electronic circuits.
- research and interpret basic electronic components using manufacturers’ data manuals, library resources, and the Internet.

(continued on next page)
(Digital Repair and Upgrade Technician Certificate continued)

Career Opportunities

This certificate prepares the student for a wide variety of jobs in the computer industry, such as, network communication cable installer, interface troubleshooter, and fiber optic installer.

Requirements for Certificate 18-21 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CISC 361</td>
<td>Microcomputer Support Essentials -</td>
<td>3</td>
</tr>
<tr>
<td>ET 302</td>
<td>Principles of Electricity and Electronics</td>
<td>4</td>
</tr>
<tr>
<td>ET 298</td>
<td>Work Experience in Electronics Technology</td>
<td>1 - 4</td>
</tr>
<tr>
<td>ET 308</td>
<td>Technical Soldering Practices and Techniques</td>
<td>2</td>
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</tbody>
</table>

Fiber Optics Certificate

Major Code: 011570C01

The Fiber Optics certificate is an introduction into 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.

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 Opportunities

The Fiber Optic certificate prepares the student to obtain 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.

See losrios.edu/gainful-emp-info/gedt.php?major=011570C01 for Gainful Employment Disclosure.

Requirements for Certificate 12 Units

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<tr>
<td>ET 388</td>
<td>Fiber Optics</td>
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</tbody>
</table>

Robotics Certificate

Major Code: 011542C01

The Robotics certificate provides an overview of electronics and robotic theory and application, programming, design, and modification. Electronics theory and application are stressed along with sensors and controllers, an important part of the next generation of robotics. Various robotic platforms are used to give a wide understanding of all types of current and future systems.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and describe the terminology used when working with Parallax stamp micro-controllers.
- program and troubleshoot the Parallax stamp micro-controller using P-Base language.
- evaluate operational characteristics of electronics components and devices operating under normal and abnormal conditions.
- synthesize and analyze electronic circuitry using computer electronic simulation software.
- compare and evaluate solder connections in accordance with industry standards.
- calculate speed and acceleration of robotic motion.
- compare DC motor and servo motor characteristics.
- analyze a fluid power schematic diagram and design a simple hydraulic circuit.

Requirements for Certificate 12 Units

First Semester:

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<th>Course</th>
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<th>Units</th>
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<tbody>
<tr>
<td>ET 302</td>
<td>Principles of Electricity and Electronics</td>
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Second Semester:

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ET 193</td>
<td>Introduction to Robotics and Sensors</td>
<td>4</td>
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Any Semester:

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<tr>
<td>ET 193</td>
<td>Introduction to Robotics and Sensors</td>
<td>4</td>
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</table>

Telecommunication Specialist Certificate

Major Code: 011571C01

The Telecommunication Specialist 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.

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 Opportunities
The Telecommunication Specialist certificate provides training for design, installation, and maintenance of any type of wired or wireless communication systems, such as, remote monitoring, radio frequency (RF) control, radio and television transmitters, public safety and government communication equipment, and fiber optic systems.

Requirements for Certificate: 17 Units

1st Semester:
ET 115  Fiber Optics and Telecommunication Cabling .................................. 4
ET 302  Principles of Electricity and Electronics .......................................... 4
ET 308  Technical Soldering Practices and Techniques .................................. 4

2nd Semester:
ET 312  Mathematics for Circuit Analysis .................................................. 3
ET 322  Semiconductors and Nanotechnology ............................................ 4

Following Semesters:
ET 312  Mathematics for Circuit Analysis .................................................. 3
ET 322  Semiconductors and Nanotechnology ............................................ 4
ET 380  Technical Soldering Practices and Techniques ............................... 2
ET 381  Electronic Communication Regulations ......................................... 3
ET 388  Fiber Optics .................................................................................... 4

Requirements for Certificate: 32 Units

1st Semester:
ET 115  Fiber Optics and Telecommunication Cabling .................................. 4
ET 302  Principles of Electricity and Electronics .......................................... 4
ET 308  Technical Soldering Practices and Techniques .................................. 4

2nd Semester:
ET 312  Mathematics for Circuit Analysis .................................................. 3
ET 322  Semiconductors and Nanotechnology ............................................ 4

Following Semesters:
ET 253  Industrial Communication Systems Support .................................. 4
ET 380  Introduction to Electronic Communications .................................... 4
ET 381  Electronic Communication Regulations ......................................... 3
ET 388  Fiber Optics .................................................................................... 4

DEPARTMENT 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. The courses required for this certificate can be completed in one semester, making it an ideal stepping stone to the Advanced Electronics and Telecommunications certificate.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• evaluate potential problems associated with electrostatic discharge (ESD).
• evaluate solder connections in accordance with industry standards.
• analyze the differences between surface mount techniques and through-hole techniques.
• inspect SMDs using a high-magnification observation station.
• diagram schematic symbols used in electronic and electrical industrial applications.

Career Opportunities
This certificate is designed for anyone wanting to enter the telecommunications industry. This certificate satisfies the requirements of a variety of entry-level positions, such as, printed circuit board (PCB) assembler, telecommunication field technician, or rework technician.

Requirements for Certificate: 9 Units

ET 302  Principles of Electricity and Electronics .......................................... 4
A minimum of 5 units from the following:
ET 115  Fiber Optics and Telecommunication Cabling ................................. 4
ET 308  Technical Soldering Practices and Techniques .................................. 4
ET 312  Mathematics for Circuit Analysis .................................................. 3

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.

Career Opportunities
This certificate prepares students for internships and entry-level employment with local industries using mechatronic and design principles.

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.

Requirements for Certificate: 17 Units

First Semester:
DESIGN 100  Introduction to Computer Aided Drafting and Design (CADD) .................................................. 3
ET 302  Principles of Electricity and Electronics .......................................... 4
ET 308  Technical Soldering Practices and Techniques .................................. 4

Second Semester:
DESIGN 302  Technical Documentation with CADD .................................. 3
ET 197  Introduction to Mechatronics .......................................................... 4
Any Semester:
WELD 300  Introduction to Welding ............................................................ 3
ET 101 | Introduction to Amateur Radio | .5 Units  
**Hours:** 9 hours LEC  
This course introduces the fundamentals of amateur radio for public and emergency communication. It covers the equipment, procedures, and uses for amateur (Ham) radio.

**ET 103 | Ham Radio Technician License Preparation** | 2 Units  
**Hours:** 36 hours LEC  
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** | 4 Units  
**Hours:** 54 hours LEC; 54 hours LAB  
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** | 4 Units  
**Hours:** 54 hours LEC; 54 hours LAB  
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** | 4 Units  
**Prerequisite:** ET 302 with a grade of “C” or better  
**Hours:** 54 hours LEC; 54 hours LAB  
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.

**ET 199 | Advanced Mechatronics** | 4 Units  
**Prerequisite:** ET 197 with a grade of “C” or better  
**Hours:** 54 hours LEC; 54 hours LAB  
This course continues the study of 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 circuits and controls, operator interface terminals, programmable logic controllers (PLCs), electromagnetic devices, analog and digital measurements, sensors, pneumatic devices, and electric motors.

**ET 200 | Introduction to Medical Ultrasound Equipment** | .5 Units  
**Corequisite:** ET 425  
**Hours:** 9 hours LEC  
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 250 | Employability Skills for Technical Careers** | 2 Units  
**Same As:** AT 107 and WELD 150  
**Advisory:** ENGRD 116 with a grade of “C” or better; OR ESLR 320, ESLL 320, and ESLW 320 with a grade of “C” or better.  
**General Education:** AA/AS Area III(b)  
**Hours:** 36 hours LEC  
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** | 4 Units  
**Prerequisite:** ET 302 with a grade of “C” or better  
**Hours:** 54 hours LEC; 54 hours LAB  
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 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 Biomedical Equipment Networking** | .5 Units  
**Advisory:** ET 253 and 302; OR ESLR 320, ESLL 320, and ESLW 320 with a grade of “C” or better.  
**Hours:** 9 hours LEC  
This course provides an overview of the Digital Information Communication of Medicine (DICOM) system. DICOM is a patient data system for medical devices to communicate with the hospital database. Topics include interface standards, test equipment, troubleshooting, and applications.

**ET 262 | Introduction to Respiratory Therapy Ventilators** | .5 Units  
**Corequisite:** ET 425  
**Hours:** 9 hours LEC  
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** | 1 Unit  
**Prerequisite:** ET 425 with a grade of “C” or better  
**Hours:** 18 hours LEC  
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 295  Independent Studies in Electronics Technology   1-3 Units  
*Hours: 54-162 hours LAB* 
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   1-4 Units  
*Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLR 340.*  
*Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the electronics industry with a cooperating site supervisor. Students are advised to consult with the Electronics Technology Department faculty to review specific certificate and degree work experience requirements. General Education: AA/AS Area III(b)*  
*Hours: 60-300 hours LAB* 
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.

ET 302  Principles of Electricity and Electronics   4 Units  
*Course Transferable to CSU*  
*Hours: 54 hours LEC; 54 hours LAB* 
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 to local electronics industries may be required.

ET 307  The Design and Fabrication of Electronics Projects   2 Units  
*Prerequisite: ET 302 with a grade of “C” or better*  
*Course Transferable to CSU*  
*Hours: 18 hours LEC; 54 hours LAB* 
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 309  Soldering and Cabling Quality Standards   3 Units  
*Advisory: ET 115 and 308*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC* 
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 310  Mathematics for Circuit Analysis   3 Units  
*Course Transferable to CSU*  
*Hours: 54 hours LEC* 
This course covers the 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 312  Semiconductors and Nanotechnology   4 Units  
*Prerequisite: ET 302 with a grade of “C” or better*  
*Corequisite: ET 312*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC; 54 hours LAB* 
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   4 Units  
*Prerequisite: ET 302 with a grade of “C” or better*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC; 54 hours LAB* 
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   2 Units  
*Prerequisite: ET 322 with a grade of “C” or better*  
*Course Transferable to CSU*  
*Hours: 18 hours LEC; 54 hours LAB* 
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites/Advisory</th>
<th>Hours</th>
<th>Transferable to CSU</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 380</td>
<td>Introduction to Electronic Communications</td>
<td>4</td>
<td>ET 302 with a grade of “C” or better</td>
<td>54 hours LEC; 54 hours LAB</td>
<td>Yes</td>
<td>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.</td>
</tr>
<tr>
<td>ET 381</td>
<td>Electronic Communication Regulations</td>
<td>3</td>
<td>ET 312, 322, or 380</td>
<td>54 hours LEC</td>
<td>Yes</td>
<td>This course provides an overview of the Federal Communication Commission (FCC) General Radiotelephone license requirements. It also covers the electronics theory and the rules and regulations mandated by the FCC. Field trips may be required.</td>
</tr>
<tr>
<td>ET 385</td>
<td>Digital Home Technology Integration</td>
<td>4</td>
<td>ET 115 with a grade of “C” or better</td>
<td>54 hours LEC; 54 hours LAB</td>
<td>Yes</td>
<td>This course covers the fundamentals of Home Technology Integration (HTI). It includes the study of and practical experience in installation, integration, and troubleshooting of entertainment, voice, security, data, and networking systems found in the home or small office. Field trips may be required.</td>
</tr>
<tr>
<td>ET 388</td>
<td>Fiber Optics</td>
<td>4</td>
<td>ET 302 with a grade of “C” or better</td>
<td>54 hours LEC; 54 hours LAB</td>
<td>Yes</td>
<td>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. A field trip may be required.</td>
</tr>
<tr>
<td>ET 420</td>
<td>Microcontrollers and Digital Signal Processors</td>
<td>4</td>
<td>ET 335</td>
<td>54 hours LEC; 54 hours LAB</td>
<td>Yes</td>
<td>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.</td>
</tr>
<tr>
<td>ET 421</td>
<td>Advanced Electronic Communications</td>
<td>4</td>
<td>ET 253 and 380 with grades of “C” or better</td>
<td>54 hours LEC; 54 hours LAB</td>
<td>Yes</td>
<td>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.</td>
</tr>
<tr>
<td>ET 425</td>
<td>Introduction to Biomedical Equipment Technology</td>
<td>4</td>
<td>ET 302 with a grade of “C” or better</td>
<td>72 hours LEC</td>
<td>Yes</td>
<td>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 are required.</td>
</tr>
<tr>
<td>ET 426</td>
<td>Advanced Biomedical Equipment Technology</td>
<td>4</td>
<td>ET 425 with a grade of “C” or better</td>
<td>54 hours LEC; 54 hours LAB</td>
<td>Yes</td>
<td>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 are required.</td>
</tr>
<tr>
<td>ET 420</td>
<td>Advanced Student Projects Laboratory</td>
<td>2</td>
<td>ET 335 or 380 with a grade of “C” or better</td>
<td>108 hours LAB</td>
<td>Yes</td>
<td>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.</td>
</tr>
<tr>
<td>ET 495</td>
<td>Independent Studies in Electronics Technology</td>
<td>1-3</td>
<td>None</td>
<td>54-162 hours LAB</td>
<td>Yes</td>
<td>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.</td>
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EMERGENCY MEDICAL TECHNICIAN (EMT) ELEVATOR

**Elevator (ELEVA)** - *New Courses added per June 2019 Addendum*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEVA 100</td>
<td>Elevator New Hire Program</td>
<td>4</td>
<td>72 LEC</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>ELEVA 101</td>
<td>Elevator Trade Skills</td>
<td>3</td>
<td>45 LEC; 27 LAB</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>ELEVA 102</td>
<td>Elevator Hoistway Structures</td>
<td>3</td>
<td>45 LEC; 27 LAB</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>ELEVA 103</td>
<td>Elevator Electrical Fundamentals</td>
<td>4</td>
<td>72 LEC</td>
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<td>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.</td>
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<tr>
<td>ELEVA 104</td>
<td>Elevator Electrical Theory and Application</td>
<td>3</td>
<td>45 LEC; 27 LAB</td>
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<td></td>
<td>Hours: 45 hours LEC; 27 hours LAB</td>
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<td></td>
<td>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.</td>
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<tr>
<td>ELEVA 105</td>
<td>Elevator Installation</td>
<td>4</td>
<td>72 LEC</td>
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<td>Hours: 72 hours LEC</td>
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<td>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.</td>
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<tr>
<td>ELEVA 106</td>
<td>Elevator Solid State Electronics</td>
<td>4</td>
<td>72 LEC</td>
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<td>Hours: 72 hours LEC</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>ELEVA 107</td>
<td>Elevator Power and Logic</td>
<td>3</td>
<td>45 LEC; 27 LAB</td>
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<td>Hours: 45 hours LEC; 27 hours LAB</td>
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<td>This course covers the fundamental circuits found in elevators control systems. It also covers basic control logic through complex logic and troubleshooting.</td>
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<tr>
<td>ELEVA 108</td>
<td>Advanced Topics in Elevators</td>
<td>4</td>
<td>72 LEC</td>
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<tr>
<td></td>
<td>Hours: 72 hours LEC</td>
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<tr>
<td></td>
<td>This course covers hydraulic elevators and non-traditional types of elevators. It also covers escalators, residential, and rack and pinion systems.</td>
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</tbody>
</table>

**Area:** Health & Education  
**Dean:** Jan DeLapp  
**Coordinator:** Dr. Grant Goold  
**Phone:** (916) 484-8843 or (916) 484-8902  
**Counseling:** (916) 484-8572

Emergency Medical Technician (EMT)  
*see Paramedic, page 454*
CERTIFICATES

Major Code: 010669C01
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. The courses included in the certificate also qualify students to take the North American Board of Certified Energy Practitioners (NABCEP) PV Associate Certificate of Knowledge Exam.

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.
• describe the advantages of obtaining the NABCEP Associate Certificate of Knowledge Exam.
• 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 Opportunities
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.

See losrios.edu/gainful-emp-info/gedt.php?major=010669C01 for Gainful Employment Disclosure.

Requirements for Certificate 22 Units
First Semester:
ET 302 Principles of Electricity and Electronics .......................................................... 4
ENERGY 140 Electrical Applications for Solar Installers ................................................ 3
ENERGY 141 Electrical & Mechanical Applications for Solar Installers ........................ 3
Second Semester:
ENERGY 142 NABCEP Associate Certification Preparation ........................................ 2
ENERGY 143 Solar Photovoltaic Systems Design, Installation, and Troubleshooting ......... 4
SPEECH 301 Public Speaking ......................................................................................... 3
BUS 300 Introduction to Business (3) ......................................................................... 3
or BUS 350 Small Business Management/Entrepreneurship (3)
Solar Energy Technology Certificate
Major Code: 010670C01
This certificate provides training in all aspects of solar photovoltaic (PV) system design, installation, troubleshooting, and repair. The courses included in the certificate also qualify students to take the North American Board of Certified Energy Practitioners (NABCEP) PV Associate Certificate of Knowledge Exam.

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.
- analyze and describe the advantages of obtaining the NABCEP Associate Certificate of Knowledge Certificate.
- 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 Opportunities
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.

Requirements for Certificate  16 Units
First Semester:
- ET 302  Principles of Electricity and Electronics ...................................... 4
- ENERGY 140  Electrical Applications for Solar Installers .......................... 3
- ENERGY 141  Electrical & Mechanical Applications for Solar Installers ....... 3
Second Semester:
- ENERGY 142  NABCEP Associate Certification Preparation ................... 2
- ENERGY 143  Solar Photovoltaic Systems Design, Installation, and Troubleshooting ................................................... 4

Energy
ENERGY 140  Electrical Applications for Solar Installers  3 Units
Corequisite: ET 302
Hours: 36 hours LEC; 54 hours LAB
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  3 Units
Prerequisite: ENERGY 140 with a grade of “C” or better
Corequisite: ET 302
Hours: 36 hours LEC; 54 hours LAB
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  2 Units
Prerequisite: ENERGY 140 and 141 with grades of “C” or better
Hours: 36 hours LEC
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 4 Units
Prerequisite: ENERGY 141 with a grade of “C” or better
Hours: 54 hours LEC; 54 hours LAB
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 303 Energy and Sustainability 3 Units
Same As: NATR 303
Advisory: MATH 120, 125, 129, 133 or higher; NATR 300, or an equivalent transferable life science course; and Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300, OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV
Course Transferable to CSU
Hours: 54 hours LEC
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.
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, 420; Physics 410, 421, 431; Chemistry 400; Engineering 401, 413, 420. Students should consult the institution to which they wish to transfer for specific lower division requirements.

DEGREES

Civil Engineering Degree
Major Code: 011109A01

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.

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 civil engineering problems.
• describe the ethical and professional responsibilities of an engineer and situations where engineering solutions can impact society.

Requirements for Degree

47.5 Units

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science and Engineering</td>
<td>CHEM 400</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>Engineering</td>
<td>ENGR 310</td>
<td>Engineering Survey Measurements</td>
<td>4</td>
</tr>
<tr>
<td>Engineering</td>
<td>ENGR 312</td>
<td>Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>Engineering</td>
<td>ENGR 413</td>
<td>Properties of Materials</td>
<td>4.5</td>
</tr>
<tr>
<td>Engineering</td>
<td>ENGR 420</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MATH 400</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MATH 401</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MATH 402</td>
<td>Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>Engineering</td>
<td>MATH 420</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>Science and Engineering</td>
<td>PHYS 410</td>
<td>Mechanics of Solids and Fluids</td>
<td>5</td>
</tr>
<tr>
<td>Engineering</td>
<td>PHYS 421</td>
<td>Electricity and Magnetism</td>
<td>4</td>
</tr>
</tbody>
</table>

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

Electrical Engineering Degree
Major Code: 011110A01

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.

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 electrical engineering problems.
• describe the ethical and professional responsibilities of an engineer and situations where engineering solutions can impact society.

Requirements for Degree

37 Units

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science and Engineering</td>
<td>CHEM 400</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>Engineering</td>
<td>ENGR 401</td>
<td>Introduction to Electrical Circuits and Devices</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MATH 400</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MATH 401</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MATH 402</td>
<td>Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>Engineering</td>
<td>MATH 420</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>Science and Engineering</td>
<td>PHYS 410</td>
<td>Mechanics of Solids and Fluids</td>
<td>5</td>
</tr>
<tr>
<td>Engineering</td>
<td>PHYS 421</td>
<td>Electricity and Magnetism</td>
<td>4</td>
</tr>
</tbody>
</table>

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

Mechanical Engineering Degree
Major Code: 011111A01

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.

(continued on next page)
(Mechanical Engineering Degree continued)

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.

Requirements for Degree  47.5 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 400  General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>ENGR 312  Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 401  Introduction to Electrical Circuits and Devices</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 413  Properties of Materials</td>
<td>4.5</td>
</tr>
<tr>
<td>ENGR 420  Statics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 400  Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 401  Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 402  Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 420  Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 410  Mechanics of Solids and Fluids</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 421  Electricity and Magnetism</td>
<td>4</td>
</tr>
</tbody>
</table>

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

Engineering

ENGR 300  Introduction to Engineering  1 Unit
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferrable to UC/CSU
Hours: 18 hours LEC

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  4 Units
Prerequisite: MATH 330 or 375 with a grade of “C” or better
Advisory: Eligible for ENGR 310 or ENGR 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferrable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB

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, and earthwork quantity calculations. This course is intended for civil engineers, but may also be required for other programs.

ENGR 312  Engineering Graphics  3 Units
Course Transferrable to UC/CSU
Hours: 36 hours LEC; 72 hours LAB

This course covers the application of graphical tools to analyze, interpret, and solve engineering problems. The design process is taught using manual and introductory interactive computer-aided design and drafting (CADD) tools to solve typical three-dimensional engineering problems. Topics include descriptive geometry, vector graphics, orthogonal projection, and primary and secondary auxiliary views. This course is intended for mechanical and civil engineering majors but may also be required for other programs.

ENGR 401  Introduction to Electrical Circuits and Devices  4 Units
Prerequisite: PHYS 421 with a grade of “C” or better
Corequisite: MATH 420
Course Transferrable to UC/CSU
Hours: 72 hours LEC

This course covers the fundamentals of electrical circuit theory and analysis for engineers. Topics include time domain circuit analysis techniques, circuit reduction techniques, frequency domain circuit analysis, first- and second-order circuits with natural and step responses, and operational amplifiers. This course provides a solid foundation for upper division engineering courses.

ENGR 413  Properties of Materials  4.5 Units
Prerequisite: CHEM 400 and PHYS 410 with grades of “C” or better
Advisory: Eligible for ENGR 310 or ENGR 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferrable to UC/CSU
Hours: 72 hours LEC; 27 hours LAB

This is an introductory course in the properties of materials used in engineering. It places emphasis upon the theory underlying the behavior of engineering materials. Additionally, it includes a laboratory component which covers the testing of metals, polymers, composites, wood, and other materials. (C-ID ENGR 140B)

ENGR 420  Statics  3 Units
Prerequisite: MATH 401 and PHYS 410 with grades of “C” or better
Course Transferrable to UC/CSU
Hours: 54 hours LEC

This course covers the study of bodies in equilibrium with emphasis on force systems, structures, distributed loads, and friction. It emphasizes analytical rather than graphical methods of problem solving. (C-ID ENGR 130)

ENGR 495  Independent Studies in Engineering  1-3 Units
Prerequisite: None
Course Transferrable to CSU
Hours: 54-162 hours LAB

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.
DEGREES AND CERTIFICATES

English A.A. for Transfer Degree

Major Code, CSU GE: 010923A01
Major Code, IGETC: 010923A02

The Associate in Arts in English for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of English. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.

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

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• analyze rhetorical and literary patterns to extract meaning, whether stated directly or implied
• discuss authors, forms, and movements of literature in English
• define and employ terminology of literary analysis
• compose essays that are generally free of sentence errors and that support a clear thesis with unified paragraphs
• evaluate and integrate research materials to support an original argument
• employ current Modern Language Association (MLA) bibliographic methods and forms

Requirements for Degree

<table>
<thead>
<tr>
<th>Requirements for Degree</th>
<th>19 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGRWR 303</td>
<td>Argumentative Writing and Critical Thinking</td>
</tr>
<tr>
<td>ENG TS 303</td>
<td>Through Literature ........................................ 4</td>
</tr>
<tr>
<td>A minimum of 9 units from the following:</td>
<td>9</td>
</tr>
<tr>
<td>ENGL 310</td>
<td>English Literature I (3)</td>
</tr>
<tr>
<td>ENGL 311</td>
<td>English Literature II (3)</td>
</tr>
<tr>
<td>ENGL 320</td>
<td>American Literature I (3)</td>
</tr>
<tr>
<td>ENGL 321</td>
<td>American Literature II (3)</td>
</tr>
<tr>
<td>ENGL 340</td>
<td>World Literature I (3)</td>
</tr>
<tr>
<td>ENGL 341</td>
<td>World Literature II (3)</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
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</tr>
<tr>
<td>ENGW 400</td>
<td>Creative Writing (3)</td>
</tr>
<tr>
<td>ENGW 401</td>
<td>Introduction to Fiction (3)</td>
</tr>
<tr>
<td>ENGW 402</td>
<td>Introduction to Poetry (3)</td>
</tr>
<tr>
<td>ENGW 403</td>
<td>Native American Literature (3)</td>
</tr>
<tr>
<td>ENGW 404</td>
<td>Mythologies of the World (3)</td>
</tr>
<tr>
<td>ENGW 405</td>
<td>Children and Literature (3)</td>
</tr>
<tr>
<td>ENGW 406</td>
<td>Introduction to Shakespeare (3)</td>
</tr>
<tr>
<td>ENGW 407</td>
<td>Introduction to Dramatic Literature (3)</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
<td>3</td>
</tr>
<tr>
<td>ENGW 410</td>
<td>Fiction Writing Workshop (3)</td>
</tr>
<tr>
<td>ENGW 420</td>
<td>Poetry Writing Workshop (3)</td>
</tr>
<tr>
<td>ENGW 430</td>
<td>Creative Non-Fiction Writing Workshop (3)</td>
</tr>
<tr>
<td>ENGW 441</td>
<td>Feature Film Screenwriting Workshop (3)</td>
</tr>
<tr>
<td>ENGW 450</td>
<td>College Literary Magazine (3)</td>
</tr>
<tr>
<td>ENGW 500</td>
<td>The Graphic Novel and Manga (3)</td>
</tr>
<tr>
<td>ENGW 520</td>
<td>Literature of California (3)</td>
</tr>
<tr>
<td>ENGW 535</td>
<td>Latino, Mexican-American, and Chicano Literature (3)</td>
</tr>
<tr>
<td>ENGW 540</td>
<td>Women in Literature (3)</td>
</tr>
<tr>
<td>ENGW 545</td>
<td>Introduction to Gay, Lesbian, Bisexual and Transgender Literature (3)</td>
</tr>
<tr>
<td>ENGW 567</td>
<td>Young Adult Literature (3)</td>
</tr>
<tr>
<td>ENGW 578</td>
<td>Science Fiction and Fantasy (3)</td>
</tr>
<tr>
<td>ENGW 580</td>
<td>Film Adaptations (3)</td>
</tr>
</tbody>
</table>

1Students may also substitute any course from the previous list not already taken to fulfill degree requirements.

Associate in Arts for Transfer Degree Requirements:

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

Major Code, CSU GE: 011157A01
Major Code, IGETC: 011157A02

The Associate in Elementary Teacher Education for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of Elementary Teacher Education. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.

The Associate in Arts degree in Elementary Teacher Education for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Arts degree in Elementary Teacher Education for Transfer (AA-T) may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the scientific method using inquiry, data collection, quantitative reasoning, and basic mathematical concepts to analyze results
- assess teaching practices and learning conditions through application of child development theories
- evaluate attitudes, actions, and behaviors indicative of a professional educator
- apply analytical reading and writing, research, and critical thinking essential for completing assigned tasks
- explain relationships and interactions between humans and the earth
- apply knowledge of world history and cultures to identify the values of a culture and work with others of diverse cultures
- analyze statistical data
- present information effectively to an intended audience
- compare and contrast various forms and styles of music, artworks, and theatrical performances

Career Opportunities

Public or private instructional assistant or classroom aide, grades K-8; private tutor; publishing and textbook salesperson; curriculum and test developer; teacher, grades K-12 with additional education.

Requirements for Degree

56-57 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 310: General Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 305: Introduction to Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>ECE 312: Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 311: Mathematical Concepts for Elementary School Teachers - Number Systems</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 310: Conceptual Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 312: Conceptual Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>POLS 301: Introduction to Government: United States (3)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 481: Introduction to Government: United States - Honors (3)</td>
<td>3</td>
</tr>
<tr>
<td>SPEECH 301: Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 300: Introduction to Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 300: Introduction to Music (3)</td>
<td>3</td>
</tr>
<tr>
<td>TA 300: Introduction to the Theatre (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 307: History of World Civilizations to 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 308: History of World Civilizations, 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>HIST 310: History of the United States (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 483: History of the United States – Honors (3)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 320: World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 305: Earth Science</td>
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</tr>
<tr>
<td>GEOL 306: Earth Science Laboratory</td>
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</tr>
<tr>
<td>GEOL 310: Geology of the Earth</td>
<td>3</td>
</tr>
<tr>
<td>MATH 311: Mathematical Concepts for Elementary School Teachers - History of World Civilizations, 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 312: Conceptual Physics Laboratory</td>
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<tr>
<td>PHYS 310: Conceptual Physics</td>
<td>3</td>
</tr>
<tr>
<td>SPEECH 301: Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 300: Introduction to Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 300: Introduction to Music (3)</td>
<td>3</td>
</tr>
<tr>
<td>TA 300: Introduction to the Theatre (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

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

Major Code: 011159A01

This degree provides an area of emphasis in verbal and written communication skills, along with the study of literature. It offers a general background in communication skills which can be used in the work place. Students who work closely with their counselor can also use this area of emphasis to prepare for majoring at a four-year college in English Composition, Literature and Communication.

Student Learning Outcomes

Upon completion of this program, the student will be able to:
- apply the elements of style in writing,
- identify 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.

Requirements for Degree 18 Units

A minimum of 3 units from the following: ....................................................... 3
ENGWR 301 College Composition and Literature (3)
or ENGWR 481 Honors College Composition and Literature (3)
ENGWR 302 Advanced Composition and Critical Thinking (3)
or ENGWR 482 Honors Advanced Composition and Critical Thinking (3)
ENGWR 303 Argumentative Writing and Critical Thinking
Through Literature (4)

SPEECH 301 Public Speaking (3)
SPEECH 331 Group Discussion (3)
SPEECH 361 The Communication Experience (3)

And a minimum of 12 units from the following: ................................................. 12
ENGL 300 Introduction to Fiction (3)
ENGL 304 Introduction to Poetry (3)
ENGL 308 The Graphic Novel and Manga (3)
ENGL 310 English Literature I (3)
ENGL 311 English Literature II (3)
ENGL 320 American Literature I (3)
ENGL 321 American Literature II (3)
ENGL 327 Literature of California (3)
ENGL 338 Native American Literature (3)
ENGL 340 World Literature I (3)
ENGL 341 World Literature II (3)
ENGL 345 Mythologies of the World (3)
ENGL 360 Women in Literature (3)
ENGL 370 Children and Literature (3)
ENGL 378 Young Adult Literature (3)
ENGL 380 Introduction to Shakespeare (3)
ENGL 382 Introduction to Dramatic Literature (3)
ENGL 392 Science Fiction and Fantasy (3)
ENGL 403 Film Adaptations (3)
SPEECH 302 Persuasive Speech (3)
SPEECH 311 Argumentation and Debate (3)
SPEECH 321 Interpersonal Communication (3)

And a minimum of 3 units from the following: ....................................................... 3
A minimum of 3 additional units chosen from either of the groups of courses listed above.

Associate Degree Requirements: The English Communication and Literature Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

DEPARTMENT CERTIFICATE

Literary Publishing Certificate

This certificate benefits students who are interested in the business of publishing literary works. Work required to edit and publish American River Review forms the core of the certificate. Additional coursework focuses on the various literary genres from reading, writing, and editing perspectives. The College Literary Publishing course serves as the capstone experience for the certificate program and provides students an opportunity to work in the role of acquisitions editors for Ad Lumen Press, American River College’s university-style literary press.

Student Learning Outcomes

Upon completion of this program, the student will be able to:
- compose literary works using the full process of drafting, receiving feedback, revising, editing, and proofreading,
- examine literary works from various genres, styles, cultural perspectives, and historical periods.
- critique literary works.
- assess literary works for publication.
- recommend editorial changes to authors of literary works.
- assemble a collection of literary works for publication.

Career Opportunities

This certificate prepares students for careers in publishing houses of full-length or periodical literature. In addition, students may use the skills to work on publications such as yearbooks, creative writing magazines, newspapers, and newsletters in a commercial or educational setting.

Requirements for Certificate 12 Units

A minimum of 3 units from the following: ....................................................... 3
ENGCW 450 College Literary Magazine ............................................................. 3
ENGCW 455 College Literary Publishing ......................................................... 3
ENGL 300 Introduction to Fiction (3)
ENGL 304 Introduction to Poetry (3)
ENGCW 453 Creative Non-Fiction Writing Workshop (3)
ENGCW 455 Creative Non-Fiction Writing Workshop (3)
ENGCW 450 College Literary Magazine (3)

1 A second semester of ENGCW 450 may be taken as one of the elective classes.
# English Reading Courses

<table>
<thead>
<tr>
<th>Classes</th>
<th>ENGRD 15</th>
<th>ENGRD 116</th>
<th>ENGRD 310</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level</strong></td>
<td>Readiness</td>
<td>College</td>
<td>Transfer</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Description**

**ENGRD 15**

*Strategic Reading, 3 units*

A good place to start for those who feel their reading skills are rusty, have not done extensive reading, or who are transitioning from ESL.

**ENGRD 116**

*Preparation for Academic Study, 3 units*

Reading comprehension and note taking skills for those who are getting ready for college-level reading.

**ENGRD 310**

*Critical Reading as Critical Thinking, 3 units*

**or**

**ENGRD 312**

*Academic Textbook Reading, 3 units*

Focus is on critical reading which is going to directly help you with the reading for 300 level classes.

**Reading Across the Disciplines (RAD)**

**RAD: Academic and Professional Development, 0.5 units**

RAD is a program for assistance with reading and other academic assignments across disciplines. RAD supports transfer level and below-transfer-level classes.

*1 Transferable, meets the A3 Critical Thinking Requirement, and fulfills reading competency for AA/AS degree

*2 Fulfills reading competency for AA/AS degree
# English Composition Courses

<table>
<thead>
<tr>
<th>Placement</th>
<th>ENGWR 300 or ENGWR 480</th>
<th>Path 1</th>
<th>ENGWR 94/ENGWR 300 Combo</th>
<th>Path 2</th>
</tr>
</thead>
</table>
| GE Requirements these Paths Meet | • AA/AS Graduation Requirements  
• CSU GE A2 and IGETC 1A   | ENGWR 300 or ENGWR 480 Combo  | ENGWR 94/ENGWR 300 Combo     |                                |
| Total Units                   | 3 units (3.5 with WAC)  | 6 units                         |                          |                                |

## First Semester

Students enroll in a stand-alone transfer-level College Composition course, **ENGWR 300**.

Students often benefit from additional support in **ENGWR 306: Advanced Writing Across the Curriculum**.

Students are also eligible to register for **ENGWR 480: Honors College Composition**, part of the ARC Honors Transfer Certificate Program.

## Second Semester

These courses meet AA/AS requirements and CSU Area A3 and IGETC Area 1B.

**ENGWR 300** meets requirements for the English AA-T.

Students are also eligible to register for **ENGWR 481 or ENGWR 482**, which meet the same requirements and are part of the ARC Honors Transfer Certificate Program.
ENGCW 400  Creative Writing 3 Units  
Prerequisite: ENGWR 101 or 102 with a grade of “C” or better, or placement through the assessment process.  
General Education: AA/AS Area II(b)  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. It includes analysis of literary models, faculty and class critiques of work, and discussion of literary techniques such as metaphor, imagery, dialogue, and narrative, in each covered genre. (C-ID ENGL 200)

ENGCW 410  Fiction Writing Workshop 3 Units  
Prerequisite: ENGWR 101 or 102 with a grade of “C” or better, or placement through the assessment process.  
Advisory: ENGCW 400 with a grade of “C” or better, and ENGWR 300 (College Composition) or ENGWR 480 (Honors College Composition)  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This creative writing course concentrates on fiction writing, including the analysis of fiction written during the semester. Topics include the examination of literary styles in traditional and contemporary fiction as well as revising and editing processes. A portfolio of original work and a conference with the instructor are required.

ENGCW 420  Poetry Writing Workshop 3 Units  
Prerequisite: ENGWR 101 or 102 with a grade of “C” or better, or placement through the assessment process.  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This creative writing course focuses on poetry, offering students the opportunity to develop a personal voice while also developing the skills to analyze and appreciate contemporary poetry. Students examine literary styles and elements in traditional and contemporary poetry, practice revision, and offer constructive critiques.

ENGCW 421  A Short Course in Poetry Writing 1 Unit  
Prerequisite: ENGWR 101 or 102 with a grade of “C” or better; or placement into ENGWR 300 or ENGWR 480 through the assessment process.  
Advisory: ENGCW 400  
Course Transferable to UC/CSU  
Hours: 18 hours LEC  
This creative writing course is an abbreviated version of the three-unit Poetry Writing Workshop, ENGCW 420, focusing on the writing of several poems. It examines literary styles in traditional and contemporary poetry and demonstrates revising and editing processes.

ENGCW 430  Creative Non-Fiction Writing Workshop 3 Units  
Prerequisite: ENGWR 101 or 102 with a grade of “C” or better, or placement through the assessment process.  
General Education: AA/AS Area II(b)  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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.

ENGCW 441  Feature Film Screenwriting Workshop I 3 Units  
Prerequisite: ENGWR 101 or 102 with a grade of “C” or better; or placement into ENGWR 300 or ENGWR 480 through the assessment process.  
Advisory: ENGCW 400, ENGWR 300, or ENGWR 480  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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 3 Units  
Prerequisite: ENGWR 101 or 102 with a grade of “C” or better, or placement through the assessment process.  
Advisory: ENGCW 400, ENGCW 410, ENGCW 420, ENGCW 430, ENGWR 300, or ENGWR 480  
Course Transferable to CSU  
Hours: 54 hours LEC; 18 hours LAB  
This course provides instruction and editorial staff experience in producing a literary and fine arts magazine. Editorial staff collaborate with art selection or design staff in Art New Media to prepare 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 selection and editing of literary content, and on the publicity, marketing, fund-raising, and distribution of a magazine. It may be taken four times for credit.

ENGCW 455  College Literary Publishing 3 Units  
Prerequisite: ENGCW 450 with a grade of “C” or better  
Advisory: ENGCW 400, ENGCW 410, ENGCW 420, ENGLT 300, ENGLT 321, ENGLT 341, ENGWR 300, ENGWR 301, ENGWR 303, ENGWR 480, or ENGWR 481  
Course Transferable to CSU  
Hours: 54 hours LEC; 18 hours LAB  
This course provides instruction and editorial staff experience in the selection of literary works of high artistic merit for publication by Ad Lumen Press, American River College’s professional literary press. It focuses on evaluating and selecting literary works submitted for publication by the public, making of editorial recommendations to the Ad Lumen Press Editorial Board, communicating in a professional manner with the public, and providing publicity for the press.

ENGCW 495  Independent Studies in English - Creative Writing 1-3 Units  
Course Transferable to CSU  
Hours: 54-162 hours LAB  
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.
### English - Education

**ENGED 305  Structure of English 3 Units**

Prerequisite: ENGWR 300 or 480 with a grade of "C" or better  
General Education: A/AAS Area II(b)  
Course Transferable to UC/CSU  
Hours: 54 hours LEC

This course is a study of the structure of English grammar, both descriptive and prescriptive. It includes the study and practice of traditional grammar and standard usage, with emphasis on the relationship to writing (2000 word writing requirement) and the teaching of language arts; it also includes an introduction to the history of the English language as it relates to irregularities in modern English. This course is designed for those who plan to teach or who are especially interested in grammar as it relates to writing.

**ENGED 320  Service Learning: Tutoring Elementary Students in Reading 3 Units**

Advisory: Eligible for ENGRD 310 or ENGRD 312; OR ESLR 340  
Enrollment Limitation: Students are required to show proof of TB clearance and, if required by the school district, complete a fingerprint clearance through the cooperating school district before they can attend the school site for field work.  
General Education: A/AAS Area III(b)  
Course Transferable to CSU  
Hours: 36 hours LEC, 54 hours LAB

This course covers basic methods of tutoring elementary school children reading below grade level. The class meets on campus for the first part of the semester for tutor training. Students are then placed at a nearby elementary school for in-depth practice tutoring elementary children in reading. This course offers field experience for teacher preparation.

**ENGED 324  Introduction to Elementary Teaching with Field Experience 3 Units**

Same As: ECE 350  
Advisory: ECE 312 or PSYC 372  
Enrollment Limitation: Before students can attend the school site for field work, they are required to show proof of TB clearance. They may also need to complete a fingerprint clearance through the cooperating school district, if the district requires it.  
General Education: A/AAS Area III(b)  
Course Transferable to CSU  
Hours: 36 hours LEC, 54 hours LAB

This course introduces the concepts and issues related to teaching diverse learners in today’s contemporary schools, kindergarten through grade 12 (K-12). Topics include teaching as a profession and career, historical and philosophical foundations of the American education system, contemporary educational issues, California’s content standards and frameworks, and teacher performance standards. In addition to class time, this course requires a minimum of 45 hours of structured fieldwork in public school elementary classrooms that represent California’s diverse student population, and includes cooperation with campus-approved certificated classroom teachers. This course is not open to students who have completed ECE 350. (C-ID EDUC 200)

**ENGED 495  Independent Studies in English - Education 1-3 Units**

Course Transferable to CSU  
Hours: 54-162 hours LAB

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.

### English - Literature

**ENGLT 300  Introduction to Fiction 3 Units**

Prerequisite: ENGWR 101 with a grade of "C" or better  
Advisory: ENGWR 300 or 480, AND ENGWR 301, ENGWR 303 or ENGWR 481.  
General Education: A/AAS Area I; CSU Area C2; IGETC Area 3B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC

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 3 Units**

Prerequisite: ENGWR 101 with a grade of "C" or better  
Advisory: ENGWR 300 or 480, AND ENGWR 301, ENGWR 303 or ENGWR 481.  
General Education: A/AAS Area I; CSU Area C2; IGETC Area 3B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC

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 poetic theory are examined.

**ENGLT 308  The Graphic Novel and Manga 3 Units**

Prerequisite: ENGWR 101 with a grade of "C" or better  
Advisory: ENGWR 300 or 480, AND ENGWR 301, ENGWR 303 or ENGWR 481.  
General Education: A/AAS Area I; A/AAS Area VI; CSU Area C2; IGETC Area 3B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC

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 3 Units**

Prerequisite: ENGWR 300 or 480 with a grade of "C" or better  
Advisory: ENGWR 301, 303, or 481  
General Education: A/AAS Area I; CSU Area C2; IGETC Area 3B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC

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. (C-ID ENGL 160)
ENGL T 327 Literature of California 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better
Advisory: ENGWR 300 or ENGWR 480, AND ENGWR 301, ENGWR 303, or ENGWR 481
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course examines 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.

ENGL T 335 Latino, Mexican-American, and Chicano Literature 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better, or placement through the assessment process.
General Education: AA/AS Area I, AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course 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 345 Mythologies of the World 3 Units
Prerequisite: ENGW 101 with a grade of "C" or better
Advisory: ENGW 300 or ENGW 480, and ENGW 301, ENGW 303 or ENGW 481.
General Education: AA/AS Area 1; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Prerequisite: ENGW 101 with a grade of "C" or better
Advisory: ENGW 300 or ENGW 480, and ENGW 301, ENGW 303 or ENGW 481.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines 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 3 Units
Prerequisite: ENGW 101 with a grade of "C" or better
Advisory: ENGW 300 or ENGW 480, and ENGW 301, ENGW 303 or ENGW 481
General Education: AA/AS Area I; CSU Area C2; CSU Area D4; IGETC Area 3B; IGETC Area 4D
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Prerequisite: ENGW 101 with a grade of "C" or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area I; CSU Area C2
Course Transferable to CSU
Hours: 54 hours LEC
This course is a survey of high-quality literature, past and present, created for children, 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 in a formal group setting.

ENGLT 378 Young Adult Literature 3 Units
Prerequisite: ENGW 101 with a grade of "C" or better
Advisory: ENGW 300 or ENGW 480, and ENGW 301, ENGW 303 or ENGW 481.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course presents an overview of young adult literature 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. Authors may include Suzanne Collins, Orson Scott Card, Markus Zusak, Yann Martel, Alexandre Dumas, J. K. Rowling, Sandra Cisneros, Lois Lowry, John Knowles, and J. D. Salinger. 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 3 Units
Prerequisite: ENGW 101 with a grade of "C" or better
Advisory: ENGW 300 or ENGW 480, and ENGW 301, ENGW 303 or ENGW 481.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. Field trips to live Shakespearean performances may be required.

ENGLT 382 Introduction to Dramatic Literature 3 Units
Prerequisite: ENGW 101 with a grade of "C" or better
Advisory: ENGW 300 or ENGW 480, and ENGW 301, ENGW 303 or ENGW 481.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. Attendance at a live theater production may be required.

ENGLT 392 Science Fiction and Fantasy 3 Units
Prerequisite: ENGW 101 with a grade of "C" or better
Advisory: ENGW 300 or ENGW 480, and ENGW 301, ENGW 303 or ENGW 481.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.
ENGLISH

ENGLT 403 Film Adaptations 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better
Advisory: ENGWR 300 or ENGWR 480, AND ENGWR 301, ENGWR 303 or ENGWR 481.
General Education: AAAS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 495 Independent Studies in Literature 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.

English - Reading

ENGRD 12 Reading Center: Individualized Support Skills for ENGRD 14 .5 Units
Corequisite: Concurrent enrollment in ENGRD 14.
Hours: 9 hours LEC
This course offers supplemental instruction in basic reading skills for those concurrently enrolled in ENGRD 14. Pass/No Pass only.

ENGRD 14 Reading Skills 3 Units
Prerequisite: Placement through the assessment process.
Hours: 54 hours LEC
This course covers the foundations of reading skills, such as vocabulary development and basic reading comprehension.

ENGRD 15 Basic Reading Skills 3 Units
Prerequisite: ENGRD 14 with a “C” or better, or 1.5 units of ENGRD 54 with a “P” AND ENGRD 55 with a “P” or placement through the assessment process.
Hours: 54 hours LEC
This course provides instruction in techniques for improving basic skills in reading. It involves intensive work with word attack, literal comprehension, vocabulary and study skills, including practice with multicultural reading materials and strategies. Individual work in ENGRD 50, Reading Center: Individualized Support Skills for ENGRD 15, may be required by instructor. This course is not open to students who have completed ENGRD 56 or ENGWR 56 with a grade of “C” or better.

ENGRD 17 Vocabulary and Spelling with Study Strategies 2 Units
Hours: 36 hours LEC
This course emphasizes the improvement of vocabulary and spelling with the use of learning and study strategies. Individual learning styles are utilized to learn new words in a number of contexts. Thematic readings, writing, and individual word journals are required throughout the course to supplement and reinforce spelling rules and the use of new vocabulary.

ENGRD 50 Reading Center: Individualized Support Skills for ENGRD 15 .5 Units
Corequisite: Concurrent enrollment in ENGRD 15.
Hours: 9 hours LEC
This course offers supplemental practice in beginning reading skills for those concurrently enrolled in ENGRD 15. Pass/No Pass only.

ENGRD 54 Succeeding in College Reading 1.5 Units
Prerequisite: Placement through the assessment process.
Corequisite: Concurrent enrollment in ENGRD 310 (Critical Reading as Critical Thinking) or ENGRD 312 (Academic Textbook Reading); AND ENGRD 314 (Speed Reading)
Hours: 27 hours LEC
This course offers small- and large-group instruction on reading processes, reading strategies, and critical thinking skills necessary for success in college reading. Assignments are connected to students’ ENGRD 310 or ENGRD 312 coursework. Pre-reading, reading, and post-reading processes are covered. This is a corequisite course for students who are concurrently enrolled in ENGRD 310 or 312 and ENGRD 314. Pass/No Pass only.

ENGRD 55 Reading Center: Individualized Reading Skills II 1.5 Units
Prerequisite: Placement through the assessment process.
Advisory: ESLR 50 with a “C” or better for non-native speakers.
Hours: 27 hours LEC
This course offers individualized instruction focused on discrete reading comprehension skills and application of those skills to persuasive and expository essays, textbooks, and fiction. Subjects include SQ3R (Study, Question, Read, Recite, and Review), patterns of development, and inferential comprehension. Pass/No Pass only.

ENGRD 56 Integrated Reading, Writing and Study Skills 6 Units
Same As: ENGWR 56
Prerequisite: ENGRD 14 (Reading Skills) with a grade of “C” or better; or 1.5 units of ENGRD 54 with a grade of “P” AND ENGRD 55 with a grade of “P”; or placement through the assessment process
Advisory: CISCI 100 with a grade of “C” or better, or equivalent skill level.
Hours: 108 hours LEC
This course emphasizes the interrelationships among reading, writing, and study skills at the basic skills level. Course content, activities, and assignments integrate all three areas, providing opportunities to improve reading and writing skills in a student-centered environment. This course provides students with ongoing practice with the reading and writing processes and covers strategies for reading and writing in response to a variety of texts. Additional topics include a review of campus services and programs and effective study strategies. This is a learning community course taught by one reading and one writing instructor. Completing this course is equivalent to completing both ENGRD 15 and ENGWR 50. This course is not open to students who have already completed ENGRD 15, ENGWR 50, ENGWR 51, or ENGWR 56 with a grade of “C” or better.

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ENGRD 111 Reading Across the Disciplines: Academic and Professional Development .5 Units
Corequisite: Enrollment in a below transfer-level course.
Hours: 9 hours LEC
This course offers reading skills development for students below transfer-level as applied to various content-area courses. Topics include the following: strategies for textbook comprehension, note-taking, annotating, mastering disciplined-base vocabulary, paraphrasing, reading graphics, and test-taking strategies. Students must come to the R.A.D. Center and meet with a R.A.D. staff member before enrolling. Pass/No Pass only.

ENGRD 116 Proficient Reading 3 Units
Prerequisite: ENGRD 15, ENGRD 56, or ENGRD 56 with a grade of “C” or better, or placement through the assessment process.
Advisory: Concurrent enrollment in ENGRD 101.
Hours: 54 hours LEC
This course analyzes expository and argumentative essays, textbooks, and literature in preparation for ENGRD 310 or ENGRD 312 and other transfer-level classes across the disciplines. It emphasizes recognition of an author's thesis, supporting details, point of view, purpose, and tone through an in-depth analysis of an essay's structure. This course also focuses on applying study strategies for comprehending and retaining information from textbooks in preparation for tests. Individual work in the Writing Across the Curriculum Program, the Reading Across the Disciplines Program, or the Reading Center may be required.

ENGRD 117 Reading Center: Individualized Support Skills for ENGRD 116 .5 Units
Corequisite: Concurrent enrollment in ENGRD 116.
Hours: 9 hours LEC
This course offers instruction in intermediate reading skills. It provides supplementary practice to students who are concurrently enrolled in ENGRD 116. Pass/No Pass only.

ENGRD 310 Critical Reading as Critical Thinking 3 Units
Prerequisite: ENGRD 116 with a grade of “C” or better, or placement through the assessment process.
Corequisite: ENGRD 314
Advisory: Concurrent enrollment in ENGRD 310.
General Education: AA/AS Area II(b); CSU Area A3
Course Transferable to CSU
Hours: 54 hours LEC
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. (Competency: Reading)

ENGRD 312 Academic Textbook Reading 3 Units
Prerequisite: ENGRD 116 with a grade of “C” or better, or placement through the assessment process.
Corequisite: ENGRD 314
Advisory: Concurrent enrollment in ENGRD 310.
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course concentrates on the refinement of the ability to read, understand, and respond to transfer-level textbooks across the curriculum. Emphasis is on critical and analytical reading, thinking and writing; graphics and other visual materials; discipline-based vocabulary; and reading rates as they relate to academic success. (Competency: Reading)

ENGRD 314 Reading Across the Disciplines: Speed Reading .5 Units
Corequisite: ENGRD 310 or 312
Course Transferable to CSU
Hours: 9 hours LEC
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; utilize ones reading rates and style based on purpose and material; utilize college-level, discipline-based vocabulary; and master the skills needed to critically read and analyze future transfer level courses and texts. Pass/No Pass only.

ENGRD 315 Reading Across the Disciplines for Content Courses .5-1 Units
Corequisite: Another transfer-level content-area course
Course Transferable to CSU
Hours: 9-18 hours LEC
This course offers reading skills to students as they apply to various content-area courses. Topics include the principles of the reading process, analysis of discipline-specific reading assignments, strategies for retention, and research strategies particular to the chosen discipline. Students should contact the RAD center before enrolling. Pass/No Pass only.

ENGRD 316 Reading Across the Disciplines for Content Courses II .5 Units
Prerequisite: ENGRD 315
Course Transferable to CSU
Hours: 9 hours LEC
This course offers individualized or small-group sessions to help students who have already completed ENGRD 315 improve classroom performance. It focuses on application of inferential and critical reading strategies and study skills to specific content classes and programs. Topics include learning style assessment, how to implement appropriate reading strategies, and how to choose the best study methods. Students must come to the RAD Center and meet with a RAD staff member before enrolling. Pass/No Pass only.

ENGRD 495 Independent Studies in English - Reading 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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 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.
**English - Writing**

**ENGWR 50 Developmental Composition** 3 Units
Corequisite: Concurrent enrollment in ENGWR 95 or ENGWR 96.
Advisory: BUSTEC 300.1
Hours: 54 hours LEC
This course focuses on developmental writing skills, emphasizing the connection between writing and reading with the goal of building fluency. It includes writing in response to assigned readings as well as practicing the writing process: prewriting, thesis development and organization of ideas, drafting of essays, and revision.

**ENGWR 56 Integrated Reading, Writing and Study Skills** 6 Units
Same As: ENGRD 56
Prerequisite: ENGRD 14 (Reading Skills) with a grade of “C” or better; or 1.5 units of ENGRD 54 with a grade of “P” AND ENGRD 55 with a grade of “P”; or placement through the assessment process
Advisory: CISC 100 with a grade of “C” or better, or equivalent skill level.
Hours: 108 hours LEC
This course emphasizes the interrelationships among reading, writing, and study skills at the basic skills level. Course content, activities, and assignments integrate all three areas, providing opportunities to improve reading and writing skills in a student-centered environment. This course provides students with ongoing practice with the reading and writing processes and covers strategies for reading and writing in response to a variety of texts. Additional topics include a review of campus services and programs and effective study strategies. This is a learning community course taught by one reading and one writing instructor. Completing this course is equivalent to completing both ENGRD 15 and ENGWR 50. This course is not open to students who have already completed ENGRD 15, ENGWR 50, ENGWR 51, or ENGRD 56 with a grade of “C” or better.

**ENGWR 94 Succeeding in College Composition** 2 Units
Corequisite: Concurrent enrollment in ENGWR 300; AND ENGWR 95 or ENGWR 96; AND ENGRD 111.
Hours: 36 hours LEC
This course offers small- and large-group instruction on writing processes, writing strategies, and critical thinking skills necessary for success in ENGWR 300 (College Composition). Assignments are connected to the students’ ENGWR 300 coursework. It covers drafting, revision, and editing processes. Pass/No Pass only.

**ENGWR 95 Beginning Writing Across the Curriculum (WAC)** .5 Units
Advisory: BUSTEC 300.1 or CISC 300
Hours: 9 hours LEC
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.

**ENGWR 96 Intermediate Writing Across the Curriculum (WAC)** .5 Units
Advisory: BUSTEC 300.1 or CISC 300
Hours: 9 hours LEC
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.

**ENGWR 101 College Writing** 4 Units
Prerequisite: ENGWR 50 or 51 with a grade of “C” or better, or placement through the assessment process.
Hours: 72 hours LEC
This course focuses on the connections between critical thinking, writing, and reading that are necessary for the independent development of essays in ENGWR 300 and other transfer-level courses. It emphasizes writing in response to various reading selections, including at least one full-length work. The essay writing process includes prewriting, thesis development and organization of ideas, drafting of essays, and revision. The course also requires outside research and includes an introduction to basic formatting and referencing of sources using MLA-style documentation. Written final drafts totaling at least 4,500 words are required.

**ENGWR 300 College Composition** 3 Units
Prerequisite: ENGWR 101 or 102 with a grade of “C” or better, or placement through the assessment process.
Advisory: Concurrent enrollment in ENGRD 310 or 312.
General Education: AAAS Area II(a); CSU Area A2; IGETC Area 1A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course emphasizes writing and includes reading, research, and critical thinking skills essential for successful completion of a college degree. It covers writing assignments, including expository and argumentative essays (6,000 words minimum for course) using MLA documentation and format. It also includes reading assignments selected from a variety of transfer-level texts of substantial length. This course is not open to students who have successfully completed ENGWR 480. (C-ID ENGL 100; Competency: Writing)

**ENGWR 301 College Composition and Literature** 3 Units
Prerequisite: ENGWR 300 or 480 with a grade of “C” or better
General Education: AAAS Area II(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. Essays written for the course (6,000 words minimum) generalize from the texts to present carefully reasoned arguments. At least one essay includes citations from secondary sources, documented according to current MLA format. Not open to students who have successfully completed ENGWR 481. (C-ID ENGL 120)

**ENGWR 302 Advanced Composition and Critical Thinking** 3 Units
Prerequisite: ENGWR 300 or 480 with a grade of “C” or better
Advisory: ENGRD 310 or 312
General Education: AAAS Area II(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course develops analytical skills through writing and discussion. It examines methods by which people are persuaded to think, believe, and act. It also includes analyses of arguments or expressions of opinions for their validity and soundness. Assigned readings include a variety of essays and a book-length text. Finally, this course focuses on critically assessing, developing, and effectively expressing and supporting opinions. Essays written for the course (6,000 words minimum) draw from the texts to present carefully reasoned arguments. At least one essay includes citations from secondary sources, documented according to current MLA format. This course is not open to students who have successfully completed ENGWR 482. (C-ID ENGL 105)
ENGWR 303 Argumentative Writing and Critical Thinking Through Literature 4 Units
Prerequisite: ENGWR 300 or 480 with a grade of "C" or better
General Education: AA/AS Area 1(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 72 hours LEC
Through the study of complex literary works in all major genres, this course offers instruction in analytical, critical, and argumentative writing; critical thinking; research strategies; information literacy; and proper documentation. Close reading skills and the aesthetic qualities of literature are also studied. A minimum of 6000 words of formal writing is required. Attendance at readings, plays, and/or films may be required. (C-ID ENGL 105; C-ID ENGL 110; C-ID ENGL 120; Competency: Reading)

ENGWR 304 Advanced Writing in the Disciplines (WID) .5-1 Units
Course Transferable to CSU
Hours: 9-18 hours LEC
This course offers small and large group instruction on the writing processes and writing strategies necessary to compose academic essays and reports that follow the guidelines and requirements of a specific discipline. Additionally, approaches to composing longer, more complex writing tasks following a discipline's style are taught. Topics vary according to need and may include the principles of the writing process, analysis of discipline-specific writing assignments, strategies for revision, and research and documentation skills such as APA or MLA. In order to take this course, students must be enrolled in at least one other transfer-level course. Pass/No Pass only.

ENGWR 306 Advanced Writing Across the Curriculum (WAC) .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
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.

ENGWR 360 Writing in the Disciplines: Composing Essays in History .5-1 Units
Course Transferable to CSU
Hours: 9-18 hours LEC
This course offers small and large group instruction on the writing processes and writing strategies necessary to compose academic essays and reports that follow the guidelines and requirements of the History discipline. Additionally, approaches to composing longer, more complex writing tasks following this discipline's style are covered. Topics include the principles of the writing process, analysis of discipline-specific writing assignments, strategies for revision, and research and documentation skills such as Chicago or MLA style. In order to take this course, students must be concurrently enrolled in at least one transfer-level History course. Pass/No Pass only.

ENGWR 361 Writing in the Disciplines: Composing Essays in the Social Sciences .5-1 Units
Course Transferable to CSU
Hours: 9-18 hours LEC
This course offers small and large group instruction on the writing processes and writing strategies necessary to compose academic essays and reports that follow the guidelines and requirements of the courses in the social science disciplines. Additionally, approaches to composing longer, more complex writing tasks following the styles of one or more disciplines in this area are covered. Topics include the principles of the writing process, analysis of discipline-specific writing assignments, strategies for revision, and research and documentation skills such as APA or Chicago style. In order to take this course, students must be concurrently enrolled in at least one transfer-level social science course, such as Psychology or Sociology. Pass/No Pass only.

ENGWR 362 Writing in the Disciplines: Composing Essays in English .5-1 Units
Course Transferable to UC/CSU
General Education: AA/AS Area II(b); CSU Area A2; IGETC Area 1A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

ENGWR 480 Honors College Composition 3 Units
Enrollment Limitation: Eligibility for the Honors Program.
General Education: AA/AS Area II(a); CSU Area A2; IGETC Area 1A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This honors composition course requires the analysis of professional essays and at least one full-length volume of non-fiction that exhibits complexity in both subject and structure. It emphasizes the composition of carefully reasoned, stylistically sophisticated essays of varying lengths and in varying rhetorical modes, at least one of which includes research and appropriate MLA documentation. Essays written in this course will total at least 6,500 words. The course also emphasizes presentation of independent and collaborative research. This course is not open to students who have successfully completed ENGWR 300. (C-ID ENGL 100; Competency: Writing)

ENGWR 481 Honors College Composition and Literature 3 Units
Prerequisite: ENGWR 480 with a grade of "C" or better; OR ENGWR 300 with a grade of "C" or better AND placement into ENGWR 480.
General Education: AA/AS Area II(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an advanced seminar in critical reading and writing about literature. Through complex, in-depth reading assignments, it examines the four major genres—the novel, the short story, poetry, and drama—in works by authors 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 is not open to students who have successfully completed ENGWR 301. (C-ID ENGL 120)
ENGWR 482 Honors Advanced Composition and Critical Thinking 3 Units
Prerequisite: ENGWR 480 (Honors College Composition) with a grade of "C" or better; OR ENGWR 300 with a grade of "C" or better AND placement into ENGWR 480.
General Education: AA/AS Area II(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is an honors course in critical reasoning, reading, and writing, requiring a high level of competence in English composition. Complex texts -- essay and book-length works -- reflecting a variety of social, cultural, and historical contexts are read, discussed, and analyzed. Although this course focuses primarily on non-fictional texts, selected works of fiction may be included. This course focuses on the writing of formal academic essays which include primary and secondary research; MLA format is required for all essays, and a minimum of 6500 words is required for the course. Group and individual class presentations are required; at least one essay assignment requires independent reading. This course is not open to students who have successfully completed ENGWR 302. (C-ID ENGL 105)

ENGWR 495 Independent Studies in English - Writing 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
American River College offers courses in English as a Second Language (ESL) 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.

**Advanced Proficiency Certificate in English as a Second Language**

**Major Code:** 011174C01

The Advanced Proficiency Program recognizes attainment of English language abilities to an advanced-low 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.

**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.
- evaluate a variety of reading selections by critically analyzing, critiquing, and responding to readings both in class and out of class.
- 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.
- employ appropriate reading strategies and adjust reading speed appropriately to address a full range of reading tasks including reading for inferences and bias.
- demonstrate mastery of verb tenses and modal auxiliary uses.
- combine sentences, with emphasis on the ability to recognize, contrast, and analyze subordination and coordination.

**Requirements for Certificate**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ESL 320</td>
<td>Advanced-Low Listening and Speaking</td>
<td>4</td>
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<tr>
<td>ESL 320</td>
<td>Advanced-Low Grammar</td>
<td>4</td>
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<tr>
<td>ESLR 320</td>
<td>Advanced-Low Reading</td>
<td>4</td>
</tr>
<tr>
<td>ESLL 320</td>
<td>Advanced-Low Writing</td>
<td>4</td>
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<td>4</td>
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<td>ESLW 320</td>
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</tbody>
</table>

**Advanced-High Proficiency Certificate in English as a Second Language**

**Major Code:** 011175C01

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.

**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.

**Requirements for Certificate**

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<tbody>
<tr>
<td>ESL 350</td>
<td>Advanced Composition and Literature</td>
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<tr>
<td>ESLR 340</td>
<td>Advanced Reading Skills Through Literature</td>
<td>4</td>
</tr>
<tr>
<td>ESSL 340</td>
<td>Advanced Composition</td>
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<tr>
<td>ESL 320</td>
<td>Advanced-Low Grammar</td>
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<td>ESL 320</td>
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A minimum of 4 units from the following:

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<td>4</td>
</tr>
<tr>
<td>ESL 320</td>
<td>Advanced-Low Listening and Speaking</td>
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</table>
DEPARTMENT CERTIFICATES

Intermediate-High Proficiency in English as a Second Language

This certificate recognizes attainment of English language abilities at an intermediate-high level in listening, speaking, reading, writing, and grammar.

**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.

**Requirements for Certificate**

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<tbody>
<tr>
<td>ESLR 40</td>
<td>Intermediate-Low Reading</td>
<td>.5</td>
</tr>
<tr>
<td>ESLW 40</td>
<td>Intermediate-Low Writing</td>
<td>.5</td>
</tr>
<tr>
<td>ESL 54</td>
<td>Intermediate-Mid Skills Lab (0.5 - 1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>ESL 94</td>
<td>Intermediate-High Skills Lab (0.5 - 1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>ESLG 30</td>
<td>Intermediate-High Grammar (4)</td>
<td>4</td>
</tr>
<tr>
<td>ESL 30</td>
<td>Intermediate-High Listening and Speaking (4)</td>
<td>4</td>
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</tbody>
</table>

Intermediate-Mid Proficiency in English as a Second Language

This certificate recognizes attainment of English language abilities to an intermediate-mid level in listening, speaking, reading, writing, and grammar.

**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.

**Requirements for Certificate**

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<tr>
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<tbody>
<tr>
<td>ESLR 30</td>
<td>Intermediate-Mid Reading</td>
<td>.5</td>
</tr>
<tr>
<td>ESLW 30</td>
<td>Intermediate-Mid Writing</td>
<td>.5</td>
</tr>
<tr>
<td>ESL 54</td>
<td>Intermediate-Mid Skills Lab (0.5 - 1.5)</td>
<td>1.5</td>
</tr>
<tr>
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<td>Intermediate-High Skills Lab (0.5 - 1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>ESLG 30</td>
<td>Intermediate-Mid Grammar (4)</td>
<td>4</td>
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<tr>
<td>ESL 30</td>
<td>Intermediate-Mid Listening and Speaking (4)</td>
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</tbody>
</table>

Intermediate-Low Proficiency in English as a Second Language

This certificate recognizes attainment of English language abilities at an intermediate-low level in listening, speaking, reading, and writing.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

- communicate orally in basic English in everyday social and work situations.
- demonstrate comprehension of written and spoken English in familiar contexts.
- write basic, comprehensible English on everyday topics.

**Requirements for Certificate**

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<tr>
<td>ESLW 30</td>
<td>Intermediate-Mid Writing</td>
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<td>ESL 30</td>
<td>Intermediate-Mid Listening and Speaking (4)</td>
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</tbody>
</table>
ESL 55 Intermediate-Mid Integrated Reading and Writing 6 Units
Prerequisite: ESLR 40 and ESLW 40 with grades of “C” or better; or placement through the assessment process.
Hours: 108 hours LEC
This intermediate-mid level integrated-skills course for non-native speakers of English is an accelerated pathway to complete 50-level coursework in reading and writing. This course integrates two existing courses, ESL 50 and ESLW 50 and 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 ESLW 50 and ESLR 50.

ESL 66 Intermediate-Mid Integrated Reading, Listening, and Speaking 4 Units
Prerequisite: ESL 40 and ESL 40 with grades of “C” or better; or placement through the assessment process.
Corequisite: ESL 55
Hours: 72 hours LEC
This intermediate-mid level integrated skills course for non-native speakers of English, along with ESL 55, is an accelerated pathway to complete 50-level coursework in reading, writing, listening, and speaking skills. This course integrates two existing courses, ESL 50 (Intermediate-Mid Listening and Speaking) and ESLR 50 (Intermediate-Mid Reading), and includes listening and reading comprehension strategies, oral skills for discussing ideas from reading and listening passages, and application of critical thinking skills, vocabulary, and pronunciation in oral discussions. Completion of this course is equivalent to completion of both ESL 50 and ESLR 50 and serves as a prerequisite to ESL 310 and ESL 310. This course is not open to students who have completed ESL 50 and/or ESLR 50.

ESL 94 Intermediate-High Skills Lab .5-1.5 Units
Prerequisite: ESL 55, ESL 56, ESLG 50, ESL 50, ESLW 50, or ESLW 50 with a grade of “C” or better; or placement through the assessment process.
Hours: 27-81 hour LAB
This course develops, expands, and reinforces multiple English language skills at the intermediate-high level in an independent and/or in a small group environment. Coursework includes integrated study topics relative to vocabulary and study skills, reading and grammar use, idiomatic language study and application, conversation and listening skills, workplace skills, composition and writing, and assorted integrated software programs. Late registration is allowed as long as space is available and with the permission of the instructor. This course is not a substitute for other ESL courses. This course may be taken up to three times for a total of 1.5 units, using different modules. Pass/No Pass only.

ESL 311 College ESL Newsletter Production 3 Units
Prerequisite: ESLL 50, ESLR 50, and ESLW 50 with grades of “C” or better; or placement through the assessment process.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 6 Units
Prerequisite: ESLR 50 (Intermediate-Mid Reading) and ESLW 50 (Intermediate-Mid Writing), OR ESL 55 (Intermediate-Mid Integrated Reading and Writing)
Course Transferable to UC/CSU
Hours: 108 hours LEC
This intermediate-high level integrated-skills course for non-native speakers of English is an accelerated pathway to complete 310-level coursework in reading and writing. This course integrates two existing courses, ESL 310 and ESLW 310, and 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 310 and ESL 310 and serves as a prerequisite to ESL 320, ESL 320, and ESL 325. This course is not open to students who have completed both ESL 310 and ESL 310.

ESL 325 Advanced-Low Integrated Reading and Writing 6 Units
Prerequisite: ESL 310 and ESL 310 with grades of “C” or better
Course Transferable to UC/CSU
Hours: 108 hours LEC
This advanced-low level integrated-skills course for non-native speakers of English is an accelerated pathway to complete 320-level coursework in reading and writing. This course integrates two existing courses, ESL 320 and ESL 320, and focuses on refining academic reading and writing skills, as well as practice in synthesizing and integrating research into argumentative writing. Reading instruction emphasizes speed, vocabulary development, and analytical comprehension. Language instruction includes the construction of well-organized and focused academic essays on a variety of topics with a focus on the development of ideas in body paragraphs, sentence variety, and the mechanics of English. Written final drafts of essays totaling at least 6,000 words are required. Completion of this course is equivalent to completion of both ESLR 310 and ESL 310 and serves as a prerequisite for ESLR 340 and ESLW 340. This course is not open to students who have completed both ESLR 320 and ESLW 320.

ESL 350 Advanced Composition and Literature 4 Units
Prerequisite: A grade of “C” or better in ESL 340 AND a grade of “C” or better in ESL 340 or a qualifying score on a reading competency examination administered by an Assessment Center in the Los Rios District.
General Education: AA/AS Area II(b); CSU Area A3
Course Transferable to UC/CSU
Hours: 72 hour LEC
This course covers reading and interpreting major types of literature, including poetry, drama, and fiction. It includes study in critical thinking and essay writing. It also emphasizes reading and written analysis of major literary works. Writing assignments total at least 8,500 words. Field trips may be required.
**English as a Second Language - Grammar**

**ESLG 50 Intermediate-Mid Grammar** 4 Units
Prerequisite: ESLW 40 (Intermediate-Low Writing) with a grade of "C" or better; or, for those not previously enrolled in an ESL grammar or writing course within the Los Rios district, placement through the assessment process.
Advisory: Concurrent enrollment in an ESL Listening and Speaking, Reading, and/or Writing course at the student's assessed level(s).
Hours: 72 hours LEC
This course concentrates on the fundamental grammatical structures of English at the intermediate-mid level. It focuses on grammatical structures in appropriate contexts. Oral and written practice with an emphasis on sentence structure and verb tenses is included.

**ESLG 310 Intermediate-High Grammar** 4 Units
Prerequisite: ESLL 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: Concurrent enrollment in an ESL Reading and Writing course at the student's assessed level(s).
Course Transferable to CSU
Hours: 72 hours LEC
This course focuses on further practice of the forms, meanings, and usage of grammatical structures of English at the intermediate-high level. Verbal practice in class reinforces the structures studied.

**ESLG 320 Advanced-Low Grammar** 4 Units
Prerequisite: ESLL 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: Concurrent enrollment in an ESL Listening and Speaking, Reading, and/or Writing course at the student's assessed level(s).
Course Transferable to CSU
Hours: 72 hours LEC
This course focuses on practice in the forms and meanings of major structures used in writing with an emphasis on clause structure at the advanced-low level. Oral practice reinforces the structures studied. Assignments emphasize sentence structure in the context of longer written work.

**English as a Second Language - Listening**

**ESLL 20 Novice Listening and Speaking** 4 Units
Prerequisite: Placement through the assessment process.
Advisory: One year of adult school and concurrent enrollment in ESL Reading and Writing courses at the student's assessed levels are highly recommended.
Hours: 72 hours LEC
This course is intended for non-native speakers of English who wish to develop listening and speaking skills for academic purposes. It includes comprehension of lectures, note-taking, and classroom discussion. It includes a review of American English sounds with oral presentations. Practice of pronunciation skills is also covered.

**ESLL 30 Novice-High Listening and Speaking** 4 Units
Prerequisite: ESLL 20 with a grade of "C" or better; or, for those not previously enrolled in an ESL listening/speaking 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 levels are highly recommended.
Hours: 72 hours LEC
This course is a course in listening comprehension and practical conversation for non-native English speakers who plan to take college courses. The sounds of American English, stress, rhythm, and intonation patterns are introduced.

**ESLL 40 Intermediate-Low Listening and Speaking** 4 Units
Prerequisite: ESLL 30 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 levels are highly recommended.
Hours: 72 hours LEC
This is a course for non-native speakers that develops the listening and speaking skills needed to succeed in college courses. Activities focus on developing phrases and sentences to communicate ideas in familiar situations. It includes group and individual listening and speaking activities, an overview of American English sounds, and practice in stress, rhythm, and intonation.

**ESLL 50 Intermediate-Mid Listening and Speaking** 4 Units
Prerequisite: ESLL 40 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 at the student's assessed level.
Hours: 72 hours LEC
This intermediate-mid level course, intended for non-native speakers of English, helps students understand and be understood in both familiar and unfamiliar situations. Class activities introduce academic listening and speaking activities and continue to work on pronunciation skills.

**ESLL 310 Intermediate-High Listening and Speaking** 4 Units
Prerequisite: ESLL 50 OR ESL 56 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 at the student's assessed level.
Course Transferable to CSU
Hours: 72 hours LEC
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 classroom 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** 4 Units
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.
Course Transferable to CSU
Hours: 72 hours LEC
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.
**English as a Second Language - Reading**

**ESLR 20 Novice Reading**  
4 Units  
Prerequisite: Placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening and Speaking courses at the student’s assessed level(s). 
Hours: 72 hours LEC  
This course focuses on understanding vocabulary and reading at the Novice level. It emphasizes reading for meaning, literal comprehension of words, phrases, and sentences in short texts. Additional class activities include discussing and writing about readings.

**ESLR 30 Novice-High Reading**  
4 Units  
Prerequisite: ESLR 20 with a grade of “C” or better or, for those not previously enrolled in an ESL reading course within the Los Rios District, placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening and Speaking and Writing courses at the student’s assessed level(s). 
Hours: 72 hours LEC  
This course focuses on the introduction of basic vocabulary and readings at the Novice-High level. It emphasizes developing reading skills, building vocabulary, and increasing fluency. Additional class activities include discussing and writing about readings.

**ESLR 40 Intermediate-Low Reading**  
4 Units  
Prerequisite: ESLR 30 (Novice-High Reading) with a grade of “C” or better or, for those not previously enrolled in an ESL reading course within the Los Rios District, placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening and Speaking and Writing course at the student’s assessed level. 
Hours: 72 hours LEC  
This course focuses on understanding vocabulary and readings at the Intermediate-Low level. It emphasizes reading for meaning, literal comprehension of words, phrases, and sentences in short texts at the Novice-High level. Additional class activities include discussing and writing about readings.

**ESLR 50 Intermediate-Mid Reading**  
4 Units  
Prerequisite: ESLR 40 with a grade of “C” or better or, for those not previously enrolled in an ESL reading course within the Los Rios District, placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening and Speaking and Writing course at the student’s assessed level(s). 
Hours: 72 hours LEC  
This course focuses on understanding vocabulary and readings at the Intermediate-Mid level. It emphasizes reading for meaning, literal comprehension of words, phrases, and sentences in short texts at the Novice-High level. Additional class activities include discussing and writing about readings.

**ESLR 310 Intermediate-High Reading**  
4 Units  
Prerequisite: ESLR 50, or ESL 55 with a grade of “C” or better or, for those not previously enrolled in an ESL reading course within the Los Rios District, placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening and Speaking and Writing course at the student’s assessed level(s). 
Course Transferable to CSU  
Hours: 72 hours LEC  
This course focuses on understanding, paraphrasing, summarizing, and responding to ideas expressed in reading.

**ESLR 320 Advanced-Low Reading**  
4 Units  
Prerequisite: ESLR 310 with a grade of “C” or better or, for those not previously enrolled in an ESL reading course within the Los Rios District, placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening and Speaking and an ESL writing course at the student’s assessed level. 
Course Transferable to CSU  
Hours: 72 hours LEC  
This course focuses on refining academic reading skills with an emphasis on speed, vocabulary development, and analytical comprehension. It includes practice in reading, writing, and synthesizing skills and extensive writing based on critical analysis of readings at the Advanced-Low level.

**ESLR 340 Advanced Reading Skills Through Literature**  
4 Units  
Prerequisite: ESLR 320 with a grade of “C” or better or, for those not previously enrolled in an ESL reading course within the Los Rios District, placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening, Speaking, and Writing courses at the student’s assessed level. 
Course Transferable to CSU  
Hours: 72 hours LEC  
This course focuses on refining academic reading skills with an emphasis on speed, vocabulary development, and analytical comprehension. It includes practice in reading, writing, and synthesizing skills and extensive writing based on critical analysis of readings at the Advanced-Low level.

**English as a Second Language - Writing**

**ESLW 20 Novice Writing**  
4 Units  
Prerequisite: Placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening and Speaking courses at the student’s assessed level(s). 
Hours: 72 hours LEC  
This course focuses on novice-level writing in English for non-native speakers of English. It emphasizes developing writing skills, including sentences, paragraph structures, and essays. Additional class activities include analyzing and writing about reading material.

**ESLW 30 Novice-High Writing**  
4 Units  
Prerequisite: ESLW 20 with a grade of “C” or better or, for those not previously enrolled in an ESL writing course within the Los Rios District, placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening and Speaking courses at the student’s assessed level(s). 
Course Transferable to CSU  
Hours: 72 hours LEC  
This course focuses on novice-high-level writing in English for non-native speakers of English. It emphasizes refining writing skills, including sentences, paragraph structures, and essays. Additional class activities include analyzing and writing about reading material.

**ESLW 40 Intermediate-Low Writing**  
4 Units  
Prerequisite: ESLW 30 with a grade of “C” or better or, for those not previously enrolled in an ESL writing course within the Los Rios District, placement through the assessment process. 
Advisory: Concurrent enrollment in ESL Listening and Speaking courses at the student’s assessed level(s). 
Course Transferable to CSU  
Hours: 72 hours LEC  
This course focuses on intermediate-low-level writing in English for non-native speakers of English. It emphasizes refining writing skills, including sentences, paragraph structures, and essays. Additional class activities include analyzing and writing about reading material.
ESLW 40 Intermediate-Low Writing 4 Units
Prerequisite: ESLW 30 with a grade of “C” or better or, for those not previously enrolled in an ESL writing course within the Los Rios District, placement through the assessment process.
Advisory: Concurrent enrollment in other ESL skills and/or an ESL Center course at the student's assessed level.
Hours: 72 hours LEC
This intermediate-low course, intended for non-native speakers of English, provides brief practice in writing paragraphs with a clear beginning, middle, and end. It also introduces how to organize and focus paragraphs within basic essay structure. The writing processes introduced include multiple drafts of essays. In the process of writing multiple drafts, critical thinking skills and grammar and sentence structure in writing are also stressed.

ESLW 50 Intermediate-Mid Writing 4 Units
Prerequisite: ESLW 40 with a grade of “C” or better or, for those not previously enrolled in an ESL writing course within the Los Rios District, placement through the assessment process.
Advisory: Concurrent enrollment in other ESL skills and/or an ESL Center course at the student's assessed level.
Hours: 72 hours LEC
This intermediate-mid course, intended for non-native speakers of English, covers techniques essential to essay writing in the process of teaching students to write standard five-paragraph academic essays. Verb tenses and other grammatical structures are revised, and control of sentence structure in longer pieces of writing is developed as language instruction focuses on strengthening individual proofreading and editing skills.

ESLW 310 Intermediate-High Writing 4 Units
Prerequisite: ESLW 50 OR ESL 55 with a grade of “C” or better OR, for those not previously enrolled in an ESL writing course within the Los Rios District, placement through the assessment process.
Advisory: Concurrent enrollment in other ESL skills and/or an ESL Center course at the student's assessed level.
Course Transferable to UC/CSU
Hours: 72 hours LEC
This intermediate-high course for non-native speakers of English develops the ability to respond to a variety of essay assignments. The course focuses on writing for different purposes, sentence variety and control of a range of sentence structures.

ESLW 320 Advanced-Low Writing 4 Units
Prerequisite: ESLW 310 with a grade of “C” or better or, for those not previously enrolled in an ESL writing course within the Los Rios District, placement through the ESL assessment process.
Advisory: Concurrent enrollment in other ESL skills and/or an ESL Center course at the student's assessed level.
Course Transferable to UC/CSU
Hours: 72 hours LEC
This advanced-low course for non-native speakers of English develops analytical and logical skills in the production of focused, developed and organized essays on a variety of topics. The course emphasizes the development of ideas in body paragraphs and the analysis and use of readings as a basis for ideas in argumentative essays. Sentence variety and the mechanics of English in the context of the essay are also covered in the course. Written final drafts totaling at least 6,000 words are required.

ESLW 340 Advanced Composition 4 Units
Prerequisite: ESLW 320 with a grade of “C” or better; or, for those not previously enrolled in an ESL writing course within the Los Rios District, placement through the assessment process.
Advisory: Concurrent enrollment in an ESL Reading and an ESL Listening and Speaking course at the student's assessed levels.
General Education: AA/AS Area II(a); CSU Area A2
Course Transferable to UC/CSU
Hours: 72 hours LEC
This college composition course emphasizes reading analysis, writing, and critical thinking skills, while also addressing the specific language and cultural needs of non-native speakers. These skills are essential for successful completion of a two or four-year college program. Writing assignments include expository and argumentative prose based on analysis of a variety of assigned readings and original research. Students write a minimum of 8,500 words divided among 6-8 essays, including a fully documented research paper and in-class essays. (Competency: Writing)
FASHN 370 (added per June 2019 Addendum))

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**DEGREES AND CERTIFICATES**

**Fashion Design Degree**

Major Code: 011123A01

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.

**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 Opportunities**

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.

**Requirements for Degree**

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<thead>
<tr>
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<td>FASHN 381</td>
<td>Couture Draping for Eveningwear (3)</td>
<td>3</td>
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</table>

**Associate Degree Requirements**: The Fashion Design Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

**Fashion Design Certificate**

Major Code: 011123C01

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.

(continued on next page)
(Fashion Design Certificate continued)

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 Opportunities
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.

See losrios.edu/gainful-emp-info/gedt.php?major=011123C01 for Gainful Employment Disclosure.

Requirements for Certificate
42 Units

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Fashion Merchandising Degree
Major Code, degree: 011125A01
This degree offers the skills necessary for jobs in fashion coordinating, promotion, visual presentation, management, merchandising, retail buying, and entrepreneurial opportunities.

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 Opportunities
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.

Requirements for Degree
33 Units

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<td>Fashion Promotion</td>
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<td>FASHN 395</td>
<td>Visual Merchandising</td>
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<td>FASHN 397</td>
<td>Fashion Retail Buying</td>
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<td>Fashion, Wedding, and Portrait Photography (3)</td>
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<td>MGMT 362</td>
<td>Techniques of Management (3)</td>
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<tr>
<td>MKT 310</td>
<td>Selling Professionally (3)</td>
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<tr>
<td>MKT 312</td>
<td>Retailing (3)</td>
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</tr>
<tr>
<td>MKT 314</td>
<td>Advertising (3)</td>
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</table>

Associate Degree Requirements: The Fashion Merchandising Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Fashion Merchandising Certificate
Major Code, certificate: 011125C01
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.

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 Opportunities
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.

See losrios.edu/gainful-emp-info/gedt.php?major=011125C01 for Gainful Employment Disclosure.

Requirements for Certificate 33 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 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
MGMT 362 Techniques of Management
MKT 310 Selling Professionally
MKT 312 Retailing
MKT 314 Advertising

DEPARTMENT 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.

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 ready-to-wear garments.
• utilize the elements and principles of design as they relate to fashion.

Career Opportunities
This certificate prepares students for entry-level jobs in apparel production companies, designer workrooms, and custom sewing workrooms.

Requirements for Certificate 15 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

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 3 units from courses that include advertising, selling professionally, and fashion photography.

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.

(continued on next page)
(Fashion Entrepreneur Certificate continued)

**Career Opportunities**
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.

See losrios.edu/gainful-emp-info/gdpt.php?major=011128C01 for Gainful Employment Disclosure.

**Requirements for Certificate**  
**15 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:
  - 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)

**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.

**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 a human form.
- 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 Opportunities**
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.

**Requirements for Certificate**  
**15 Units**
- FASHN 300 Introduction to the Fashion Industry .......................................................... 3
- FASHN 344 Fashion Illustration II ............................................................................. 3
- FASHN 397 Fashion Retail Buying ................................................................................ 3
- MGMT 362 Techniques of Management ..................................................................... 3
- A minimum of 3 units from the following:
  - FASHN 320 Textiles (3)
  - FASHN 393 Fashion Promotion (3)
  - MKT 312 Retailing (3)

**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.

**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 Opportunities**
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.

**Requirements for Certificate**  
**15 Units**
- FASHN 300 Introduction to the Fashion Industry .......................................................... 3
- FASHN 344 Fashion Illustration II ............................................................................. 3
- FASHN 397 Fashion Retail Buying ................................................................................ 3
- MGMT 362 Techniques of Management ..................................................................... 3
- A minimum of 3 units from the following:
  - FASHN 320 Textiles (3)
  - FASHN 393 Fashion Promotion (3)
  - MKT 312 Retailing (3)

**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.

**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.
- analyze basic pattern alterations and apply them to commercial and custom patterns.
- create patterns using flat-pattern or draping methods.
- construct a garment utilizing basic or advanced sewing construction techniques.
Career Opportunities
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.

Requirements for Certificate  
12 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 362 Tailoring Techniques (3)
FASHN 380 Computer Patternmaking (3)
FASHN 381 Couture Draping for Eveningwear (3)

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 exploring entrepreneurial opportunities.

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 Opportunities
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.

Requirements for Certificate  
16.5 Units
FASHN 342 Fashion Illustration ................................................................. 3
FASHN 344 Fashion Illustration II ............................................................... 3
FASHN 359 Knitwear Construction (1.5) ................................................... 1.5
or FASHN 363 Fashion Accessories and Embellishments (1.5) 
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)

Fashion

FASHN 300 Introduction to the Fashion Industry  
3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340. Course Transferable to CSU
Hours: 54 hours LEC

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. Field trips may be required.

FASHN 310 Fashion Analysis/ 
Clothing Selection  
3 Units
Course Transferable to UC/CSU
Hours: 54 hours LEC

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  
3 Units
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB

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  
3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340. 
General Education: AA/AS Area I; CSU Area C1
Course Transferable to CSU
Hours: 54 hours LEC

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. Field trips may be required.

FASHN 334 Vintage Costuming  
.5-2 Units
Same As: TA 434
Advisory: FASHN 357 or TA 430; and eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300, OR ESLR 340 AND ESLW 340. Course Transferable to UC/CSU
Hours: 4.5-18 hours LEC; 13.5-54 hours LAB

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 3 Units
Course Transferable to CSU
Prerequisite: FASHN 342 with a grade of “C” or better
Hours: 36 hours LEC; 54 hours LAB
This course is an introduction to freehand and computer-generated fashion illustration. Illustration concepts unique to fashion are explored using various freehand drawing techniques and computer design software. Design elements and principles including color, texture, line, balance, and apparel details are incorporated into the illustrations.

FASHN 344 Fashion Illustration II 3 Units
Course Transferable to CSU
Prerequisite: FASHN 342 with a grade of “C” or better
Hours: 36 hours LEC; 54 hours LAB
This course builds on the skills acquired in FASHN 342. Emphasis is placed on 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.

FASHN 357 Apparel Construction I 3 Units
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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.

FASHN 358 Apparel Construction II 3 Units
Prerequisite: FASHN 357 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course focuses on the application and evaluation of apparel construction techniques, fit, and pattern alterations. Current fashion fabrics and shaping materials are introduced. Emphasis is on developing advanced skills in garment construction.

FASHN 359 Knitwear Construction 1.5 Units
Prerequisite: FASHN 357 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC; 27 hours LAB
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 3 Units
Prerequisite: FASHN 358 and 374 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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.

FASHN 363 Fashion Accessories and Embellishments 1.5 Units
Prerequisite: FASHN 357 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC; 27 hours LAB
This course provides students with embellishment skills for trendy 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 370 Pattern Adjustment and Clothing Alterations 3 Units
Course Transferable to CSU
Prerequisite: FASHN 310 and 358 with grades of “C” or better
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Prerequisite: FASHN 357 or TA 430 with a grade of “C” or better
Advisory: MATH 25 or MATH 41 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required.

FASHN 378 Advanced Pattern Making and Design 3 Units
Course Transferable to CSU
Prerequisite: FASHN 358 and 374 with grades of “C” or better
Hours: 36 hours LEC; 54 hours LAB
This course covers the creation of full-scale patterns, using advanced patterning 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 3 Units
Prerequisite: FASHN 374 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Prerequisite: FASHN 374 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This advanced pattern drafting course introduces industry computer software. It makes comprehensive use of patterning skills acquired in FASHN 374 Patternmaking. Working from a designer’s sketch or photograph, patterns are drafted and completed using computer software.

FASHN 381 Couture Draping for Eveningwear 3 Units
Prerequisite: FASHN 379 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required.
FASHN 382 Collection Design and Production 3 Units
Prerequisite: FASHN 358, 378, and 379 with grades of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
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 3 Units
Prerequisite: FASHN 370 with a grade of "C" or better
Course Transferable to CSU
Hours: 18 hours LEC, 108 hours LAB
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 3 Units
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
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 3 Units
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
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 3 Units
Advisory: Eligible for MATH 32 or MATH 42.
Course Transferable to CSU
Hours: 54 hours LEC
This course addresses the practical and business aspects of the fashion industry. Topics include defining a small collection, creating 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. Field trips may be required.

FASHN 398 Fashion Entrepreneur 3 Units
Advisory: BUS 100
Course Transferable to CSU
Hours: 54 hours LEC
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 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to fashion with a cooperating site supervisor. Students are advised to consult with the Fashion Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
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, see page 286, 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 courses, see page 287, and FFS courses, see page 296, 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.

Fire Technology Degree and Certificate
Major Code, degree: 011127A01
Major Code, certificate: 011127C01

Firefighting is a public safety profession that requires special knowledge of safety, rescue, emergency medical operations, and hazardous materials. 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.

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 personnel 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 Opportunities
A variety of career opportunities are open to students who successfully complete specific portions of this program of study. Employment opportunities may be found in areas such as firefighter-paramedic, fire investigation, fire prevention, hazardous materials, public education, and firefighting.

See losrios.edu/gainful-emp-info/gedt.php?major=011127C01 for Gainful Employment Disclosure.

Requirements for Degree or Certificate 30 Units
To maximize the successful completion of this program it is suggested the student first enroll in FT 300. Other FT courses may be taken concurrently.

- 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

And a minimum of 12 units from the following: ........................................ 12

- FT 110 Fire Apparatus (3)
- FT 130 Fire Company Organization and Management (3)
- FT 170 Fire Investigation (3)
- FT 180 Rescue Practices (3)
- FT 190 Fire Tactics and Strategy (3)
- FT 192 Wildland Fire Control (3)
- FT 310 Fire Service Hydraulics (3)
- FT 320 Hazardous Materials (3)

Associate Degree Requirements: The Fire Technology Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
FIRE TECHNOLOGY

Firefighter Recruit Academy Certificate
(Offered through the Sacramento Regional Public Safety Training Center)

Major Code: 011557C01
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.

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 workplace 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

Requirements for Certificate  14 - 15 Units
FIRE 1500  Firefighter Academy ................................................................. 14-15

DEPARTMENT CERTIFICATES
(Offered through the Sacramento Regional Public Safety Training Center)

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.

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

Requirements for Certificate  2 Units
FIRE 1670  Fire Investigation 1A, Fire Cause and Origin Determination 2

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.

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 facts 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

Requirements for Certificate  2 Units
FIRE 1671  Fire Investigation 1B, Techniques of Fire Investigation 2
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.

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

Requirements for Certificate  2 Units

FIRE 1672  Fire Investigation 2A .......................... 2

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.

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

Requirements for Certificate  2 Units

FIRE 1673  Fire Investigation 2B .......................... 2

Fire Technology Courses

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Fire Fighting Training Center Courses

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(continued on next page)
Fire Technology 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.

**FT 110 Fire Apparatus**  
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 54 hours LEC

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**  
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 54 hours LEC

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 170 Fire Investigation**  
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 54 hours LEC

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**  
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 54 hours LEC

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**  
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 54 hours LEC

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**  
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 54 hours LEC

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 298 Work Experience in Fire Technology**  
Enrollment Limitation: Indentured in the Wildland Firefighter Apprenticeship Program (W.F.A.P.).  
Hours: 60-300 hours LAB

This course provides students the opportunity to work in the Wildland Firefighter Apprenticeship Program (W.F.A.P.) for the purpose of developing specific skills to meet the goals and objectives of the National Interagency Joint Apprenticeship Committee (N.I.J.A.C.). Students complete work experience hours at approved training sites. 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. One unit of credit is earned for each 60 hours of unpaid, or 75 hours of paid work.

**FT 300 Fire Protection Technology**  
Course Transferable to CSU
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340
Hours: 54 hours LEC

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. (C-ID FIRE 100X)

**FT 301 Fire Protection Equipment and Systems**  
Course Transferable to CSU
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Hours: 54 hours LEC

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**  
3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.  
Course Transferable to CSU  
Hours: 54 hours LEC  
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**  
3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area IV  
Course Transferable to CSU  
Hours: 54 hours LEC  
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**  
3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.  
Course Transferable to CSU  
Hours: 54 hours LEC  
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 fatigue case studies and analysis. This course emphasizes best safety practices before, during, and after the emergency incident.

**FT 310 Fire Service Hydraulics**  
3 Units  
Advisory: MATH 32 or MATH 42; AND eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.  
Course Transferable to CSU  
Hours: 54 hours LEC  
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**  
3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.  
Course Transferable to CSU  
Hours: 54 hours LEC  
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.

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**Firefighting Training**

(FIRE) Firefighting Training 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.

**FIRE 1084 Wildfire Powersaws Refresher (S-212)**  
.5 Units  
Hours: 8 hours LEC; 8 hours LAB  
This course is designed to refresh and re-certify chain saw 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)**  
.25 Units  
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.  
Hours: 1 hours LEC; 15 hours LAB  
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)**  
.25 Units  
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.  
Hours: 1 hours LEC; 15 hours LAB  
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 4 (Controlling Ignitible Liquids and Gases)**  
.5 Units  
Prerequisite: FIRE 1600  
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.  
Hours: 6.5 hours LEC; 9.5 hours LAB  
This course provides the knowledge and skills that prepare a firefighter to extinguish an ignitible liquid fire, control a flammable gas fire, and develop an incident action plan for a pipeline emergency. Topics include ignitible liquid fires, flammable gas fires, pipeline emergencies, and skills exercises. Pass/No Pass only.

**FIRE 1130 Company Officer 2A (Human Resource Management for Company Officers)**  
1.75 Units  
Prerequisite: FIRE 1507 with a grade of “C” or better  
Hours: 33 hours LEC; 7 hours LAB  
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)  .75 Units
Prerequisite: FIRE 1507 with a grade of “C” or better
Hours: 15 hours LEC; 5 hours LAB
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) 1.75 Units
Prerequisite: FIRE 1507 with a grade of “C” or better
Hours: 33 hours LEC; 7 hours LAB
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)  1.25 Units
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).
Hours: 20 hours LEC; 20 hours LAB
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)  1.75 Units
Prerequisite: FFS 1541, FIRE 1133, and FIRE 1507 with grades of “C” or better
Hours: 28 hours LEC; 12 hours LAB
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 1 Unit
Enrollment Limitation: Meet the educational requirements for Company Officer, or seeking Fire Marshal Certification.
Hours: 16.3 hours LEC, 9.8 hours LAB
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 .5 Unit
Enrollment Limitation: Meet the educational requirements for Company Officer.
Hours: 9.5 hours LEC; 8.5 hours LAB
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 .75 Unit
Enrollment Limitation: Meet the educational requirements for Company Officer.
Hours: 14 hours LEC; 10 hours LAB
This course provides a basic knowledge of the administration requirements related to the roles and responsibilities of a Chief Fire Officer. Topics include developing 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 .75 Unit
Enrollment Limitation: Meet the educational requirements for Company Officer.
Hours: 12.5 hours LEC; 11.5 hours LAB
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 1 Unit
Enrollment Limitation: Meet educational requirements for Chief Fire Officer
Hours: 19 hours LEC; 9 hours LAB
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 .25 Unit
Enrollment Limitation: Meet educational requirements for Chief Fire Officer
Hours: 6.5 hours LEC; 4 hours LAB
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 1.25 Units
Enrollment Limitation: Meet educational requirements for Chief Fire Officer
Hours: 21.5 hours LEC; 9 hours LAB
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 2 Units
Enrollment Limitation: Meet educational requirements for Chief Fire Officer
Hours: 35.5 hours LEC; 3 hours LAB
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 .5 Units
Enrollment Limitation: Meet educational requirements for Chief Fire Officer
Hours: 11.5 hours LEC; 3 hours LAB
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 1.25 Units
Prerequisite: FFS 1510 with a grade of “C” or better
Hours: 16 hours LEC; 24 hours LAB
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 1.5 Units
Prerequisite: FIRE 1133 and 1160 with grades of “C” or better
Hours: 20.5 hours LEC; 19.5 hours LAB
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 .75 Units
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).
Hours: 9 hours LEC; 15 hours LAB
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 1500 Firefighter Academy 14-15 Units
Enrollment Limitation: Public Safety First Aid and CPR per California Health and Safety code 1797.182 or equivalent
Hours: 137-140 hours LEC; 363-419 hours LAB
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 12-12.5 Units
Enrollment Limitation: Completion of a firefighter intern certificate.
Hours: 130 hours LEC; 270-290 hours LAB
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 extraction, 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
   Hours: 48 hours LEC; 18 hours LAB
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  11.5-13.5 Units
   Enrollment Limitation: Acceptance into the transitional firefighter
academy AND successful completion of a California State Fire Training
accredited academy or lateral transfer from a full-time
career fire department
   Hours: 140 hours LEC, 205-300 hours LAB
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  3.5 Units
   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.
   Hours: 42 hours LEC; 70 hours LAB
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,
personal protective gear, and maintenance. Pass/No Pass only.

FIRE 1520  Fire Apparatus Driver/Operator 1A -
Pumping Apparatus  1.25 Units
   Enrollment Limitation: Valid Class C California Drivers License.
   Hours: 19.5 hours LEC; 20.5 hours LAB
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  1.25 Units
   Prerequisite: FIRE 1520
   Enrollment Limitation: Hold a valid Class C Firefighter Endorsed
driver’s license (minimum).
   Hours: 18 hours LEC; 22 hours LAB
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  1.5 Units
   Enrollment Limitation: Must be in the position
   of Fire Engineer or above.
   Hours: 20 hours LEC; 21 hours LAB
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  .25 Units
   Enrollment Limitation: Completion of a State of California
   Fire Marshal approved Firefighter 1 academy.
   Hours: 2 hours LEC; 7 hours LAB
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  .25 Units
   Hours: 2 hours LEC; 7 hours LAB
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  .5 Units
   Hours: 9 hours LEC
This course is a continuation of Emergency Vehicle Operator - Phase
I 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  1.5 Units
   Prerequisite: FIRE 1500 and 1520
   Enrollment Limitation: Hold a valid Class C Firefighter Endorsed
driver’s license (minimum).
   Hours: 23 hours LEC; 17 hours LAB
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  1 Unit
   Prerequisite: FIRE 1500 and 1521
   Enrollment Limitation: Hold a valid Class C Firefighter Endorsed
driver’s license (minimum).
   Hours: 13 hours LEC; 27 hours LAB
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 .75 Unit
Prerequisite: FIRE 1500, 1520, and 1521
Enrollment Limitation: Hold a valid Class C Firefighter Endorsed driver license (minimum).
Hours: 7.5 hours LEC; 24.5 hours LAB
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 .5 Unit
Prerequisite: FIRE 1500, 1520, and 1521
Enrollment Limitation: Hold a valid Class C Firefighter Endorsed driver license (minimum).
Hours: 5 hours LEC; 19 hours LAB
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 .5 Unit
Enrollment Limitation: Currently certified as a California EMT-I
Hours: 9 hours LEC
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 .5 Unit
Hours: 14 hours LEC; 2 hours LAB
This course covers the basic strategies involving potential exposure to hazardous materials. This course also covers how to detect hazmat substances, consult references for information, and implement operational procedures. This course was formerly listed as FIRE 1068, CDF 1068, SFD 1068, and SMFD 1068 prior to April 2011. Pass/No Pass only.

FIRE 1601 Hazardous Materials Technician: Module 1A: Basic Chemistry 2 Units
Prerequisite: FIRE 1600
Hours: 40 hours LEC
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 1602 Hazardous Materials Technician: Module 1B: Applied Chemistry 1.25 Units
Prerequisite: FIRE 1600
Hours: 20.3 hours LEC; 19.8 hours LAB
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 1603 Hazardous Materials Technician: Module 1C: Protective Actions 1.5 Units
Prerequisite: FIRE 1600
Hours: 21 hours LEC; 19 hours LAB
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 1604 Hazardous Materials Technician: Module 1D: Special Mitigation Techniques 1.75 Units
Prerequisite: FIRE 1600
Hours: 40 hours LEC
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 1605 Hazardous Materials Technician: Module 1E: Special Mitigation Techniques 1.75 Units
Prerequisite: FIRE 1600
Hours: 40 hours LEC
This course 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 1606 Hazardous Materials Technician: Module 1F: Hazardous Materials Specialist 1.25 Units
Prerequisite: FIRE 1600
Hours: 12 hours LEC
This course 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 1615 Hazardous Materials Specialist Module 1G: .75 Units
Advanced Field Operations
Prerequisite: FIRE 1614
Hours: 2 hours LEC; 38 hours LAB
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) .5 Units
Hours: 12 hours LEC; 4 hours LAB
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. This course was formerly listed as FIRE 1052 prior to April 2011. Pass/No Pass only.

FIRE 1628 High Rise Incident Management - Basic Organization .25 Units
Hours: 3.5 hours LEC; 3 hours LAB
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 1 Unit
Enrollment Limitation: Completion of a State of California Fire Marshal approved Firefighter I academy.
Hours: 20 hours LEC; 4 hours LAB
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 CDE, FJPA, SFD, and SMFD 1092 prior to April 2011. Pass/No Pass Only.

FIRE 1653 Instructor I: Instructional Methodology 1.25 Units
Hours: 16.5 hours LEC; 23.5 hours LAB
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 1.25 Units
Prerequisite: FIRE 1653 with a grade of “C” or better
Hours: 14.3 hours LEC; 25.8 hours LAB
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 1.5 Units
Prerequisite: FIRE 1653 and 1654 with grades of “C” or better
Hours: 26.8 hours LEC; 9.3 hours LAB
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 1670 Fire Investigation 1A, Fire Cause and Origin Determination 2 Units
Prerequisite: FIRE 1670
Hours: 40 hours LEC
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 2 Units
Prerequisite: FIRE 1671
Hours: 40 hours LEC
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 1241 prior to September 2010. Pass/No Pass only.

FIRE 1672 Fire Investigation 2A 2 Units
Prerequisite: FIRE 1672
Hours: 40 hours LEC
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 1242 prior to September 2010. Pass/No Pass only.

FIRE 1674 Fire Investigator 1A: Basic Fire Investigation 1.75 Units
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)
Hours: 29 hours LEC; 11 hours LAB
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 1.5 Units  
Prerequisite: FIRE 1674  
Enrollment Limitation: On-line course: Introduction to Evidence (CFITrainer.net)  
Hours: 24 hours LEC; 10 hours LAB  
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 1.25 Units  
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)  
Hours: 19 hours LEC; 21 hours LAB  
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) .75 Units  
Hours: 16 hours LEC  
This course provides the foundation of incident business management practices. Topics include property management, recruitment, acquisition, and accident investigation. This course was formerly listed as FIRE 1093 prior to April 2011. Pass/No Pass only.

FIRE 1703 Basic Wildland Fire Prevention 1 Unit  
Hours: 24 hours LEC  
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 FIRE 1093 prior to April 2011. Pass/No Pass Only.

FIRE 1722 Division/Group Supervisor (S-339) 1 Unit  
Prerequisite: CDF 1066 with a grade of “C” or better  
Hours: 24 hours LEC  
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 1763 Rescue Systems 1: Basic Rescue Skills 1 Unit  
Prerequisite: FIRE 1500 and 1760  
Advisory: Ability to Swim  
Hours: 7 hours LEC; 5 hours LAB  
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 1766 River and Flood Water Rescue 1 Unit  
Prerequisite: FIRE 1093 and 1104 prior to April 2011. Pass/No Pass only.

FIRE 1767 Low-Angle Rope Rescue Operational (LARRO) .5 Unit  
Hours: 19 hours LEC; 5 hours LAB  
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 1768 Water Rescue for Fire Service Personnel 7.5-9.75 Units  
Enrollment Limitation: Completion of a State of California Fire Marshal approved Firefighter 1 academy  
Hours: 84-114 hours LEC; 156-186 hours LAB  
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 1768 Vehicle Extriaption .75 Unit
Prerequisite: FIRE 1500
Hours: 9 hours LEC; 15 hours LAB
This course provides the knowledge and skills to prepare a fire fighter 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 .75 Unit
Prerequisite: FIRE 1761
Hours: 10 hours LEC; 14 hours LAB
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 hazardous, 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) 2 Units
Hours: 35.5 hours LEC
This course provides new firefighters with basic wildland firefighting skills. It also provides the knowledge needed to identify basic weather conditions, topography, fuels, and their effect on fire behavior. Pass/No Pass only.

FIRE 1801 Fire Fighter Survival .25 Units
Hours: 4 hours LEC; 12 hours LAB
This course provides a greater understanding of how to avoid committing fatal errors on the fireground. Topics include fire fighter survival terminology, developing a survival attitude, increasing situational awareness, and problem-solving techniques. Pass/No Pass only.

FIRE 1803 Rapid Intervention Crew Operations .5 Units
Prerequisite: FIRE 1500 and 1801
Hours: 4 hours LEC; 20 hours LAB
This course is designed for fire fighters to rescue a downed fire fighter in an Immediately Dangerous to Life and Health (IDLH) environment in the continuing effort to reduce the number of fire fighter injuries and deaths that occur regularly. Students train using evolutions and scenarios based off tragedies suffered by fellow fire fighters from departments across the country. Students receive information on how to locate and use these Line of Duty Death (LODD) studies as training and prevention tools throughout their careers. This course focuses on the three phases of a Rapid Intervention Crew (RIC) operation: 1) predeployment, 2) deployment, and 3) rescue. During the class, you will also gain a greater understanding of RIC operations terminology and the RIC mindset. Topics include identifying causes of firefighter injuries and fatalities at structure fires, describing and preventing common fire ground errors that have caused injuries or fatalities, demonstrating self-survival knowledge and techniques, and demonstrating and applying firefighter rescue and self-survival techniques. This course was formerly listed as FIRE 1050 prior to April 2011. Pass/No Pass only.

FIRE 1804 Confined Space Awareness .25 Units
Hours: 6 hours LEC
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 1.75 Units
Hours: 26 hours LEC; 20 hours LAB
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 1 Unit
Prerequisite: FIRE 1804
Hours: 11 hours LEC; 29 hours LAB
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).5 Unit
Prerequisite: FIRE 1800
Hours: 8 hours LEC
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. This course was formerly listed as FIRE 1067 prior to April 2011. Pass/No Pass only.

FIRE 1808 Fire Ground Skills: Update .25 Unit
Prerequisite: Completion of a State of California Fire Marshal approved Firefighter 1 academy
Hours: 4 hours LEC; 4 hours LAB
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) 1 Unit
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.
Hours: 11 hours LEC; 25 hours LAB
This course is designed for prospective chainsaw 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. This course was formerly listed as CDF, FJPA, SMFD, USDA, EGF, and SFD 1080 prior to September 2011. Credit/No Credit only.

FIRE 1860 Physical Fitness for Fire Service Personnel 1.5-3 Units
Hours: 13 hours LEC; 42-130 hours LAB
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) .75 Unit
Hours: 16 hours LEC
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 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. This course was formerly listed as FIRE 1058 prior to April 2011. Pass/No Pass only.

FIRE 1873 Strike Team/Task Force Leader, All-Hazards (STEN/TFLD) (AH-330) 1.25 Units
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.
Hours: 22 hours LEC; 10 hours LAB
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. This course was formerly listed as FIRE 1066 prior to April 2011. Pass/No Pass only.

FIRE 1874 Task Force/Strike Team Leader Refresher .25-.5 Units
Hours: 4-8 hours LEC
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) .25-.75 Units
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.
Hours: 16 hours LEC; 4-8 hours LAB
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) 1.5 Units
Prerequisite: CDF 1052
Hours: 24 hours LEC; 8 hours LAB
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. This course was formerly listed as CDF, FJPA, SMFD, and USDA 1118 prior to April 2011. Credit/No Credit only.

FIRE 1881 Helicopter Training (S217) 1.5 Units
Prerequisite: FT 53 (SMFD 1055) and FT 52 (SMFD 1052)
Hours: 26 hours LEC; 14 hours LAB
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) 1 Unit
Hours: 16 hours LEC; 8 hours LAB
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 .5 Unit
Hours: 9 hours LEC
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) .25 Unit
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.
Hours: 8 hours LEC
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, 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) 1 Unit
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.
Hours: 16 hours LEC; 8 hours LAB
This course utilizes 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) .25 Unit
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.
Hours: 3.5 hours LEC; 4.5 hours LAB
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.
FFS 1500  All Hazards Operations Section Chief  
(S-430/E-958)  
**1.5 Units**  
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.  
Hours: 24.5 hours LEC; 7.7 hours LAB  
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  
**7 Units**  
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.  
Hours: 114.5 hours LEC; 45.5 hours LAB  
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  
**5.5 Units**  
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.  
Hours: 63.5 hours LEC; 112.5 hours LAB  
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)  
**1.25 Units**  
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 for personal protection equipment.  
Hours: 20 hours LEC; 12 hours LAB  
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)  
**.75 Units**  
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).  
Hours: 12.5 hours LEC; 5.5 hours LAB  
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)  
**.75 Units**  
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.  
Hours: 16 hours LEC  
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) 1.5 Units
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. Hours: 27 hours LEC; 5 hours LAB
This course provides local and state-level emergency responders with an overview of the objectives 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) 1.5 Units
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. Hours: 26 hours LEC; 10 hours LAB
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) .75 Units
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). Hours: 13.8 hours LEC; 6.3 hours LAB
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) 2 Units
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. Hours: 36 hours LEC
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) 1.25 Units
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. Hours: 17 hours LEC; 19 hours LAB
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) 1 Unit
Enrollment Limitation: To enroll in this course (FFS 1520) 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) qualified as a helicopter manager, single resource (HMGB). Hours: 13 hours LEC; 19 hours LAB
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.
FIRE TECHNOLOGY

FFS 1521 Helicopter Manager (S-372) 1.25 Units
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). Hours: 20 hours LEC; 20 hours LAB

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) 1 Unit
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). Hours: 20 hours LEC

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) 1.75 Units
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.

Hours: 32 hours LEC; 8 hours LAB

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 (ATTCO), and Aerial Supervision Module (ASM) crewmember as outlined in the Interagency Aerial Supervision Guide (IAGS). 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) 1 Unit
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.

Hours: 20 hours LEC

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) 1 Unit
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.

Hours: 20 hours LEC

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) 1.5 Units
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).

Hours: 23.5 hours LEC; 12.5 hours LAB

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) 1.25 Units
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).

Hours: 22 hours LEC; 10 hours LAB

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) 1.75 Units
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).

Hours: 32 hours LEC; 8 hours LAB

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.
**FIRE TECHNOLOGY**

**FFS 1533**  
**ROSS Dispatch (NROSSD)**  
1.5 Units  
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 F-100 Incident Command System (Introduction), 3) have successfully completed F-200 Incident Command System (Basic), and 4) successfully completed D-110 Expanded Dispatch Recorder. Hours: 28.5 hours LEC; 3.5 hours LAB  
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.

**FSS 1534**  
**USDA Law Enforcement Dispatch (LEDSP)**  
1.5 Units  
Prerequisite: FSS 1531 with a grade of “C” or better  
Enrollment Limitation: To enroll in this course (FSS 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. Hours: 28 hours LEC; 4 hours LAB  
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.

**FSS 1540**  
**Introduction to Wildland Fire Behavior (S-190)**  
.25 Units  
Enrollment Limitation: To enroll in this course (FSS 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. Hours: 8 hours LEC  
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.

**FSS 1541**  
**Intermediate Wildland Fire Behavior (S-290)**  
1.75 Units  
Prerequisite: FSS 1540 with a grade of “C” or better  
Enrollment Limitation: To enroll in this course (FSS 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. Hours: 32 hours LEC  
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.

**FSS 1542**  
**Introduction to Wildland Fire Behavior Calculations (S-390)**  
1.5 Units  
Prerequisite: FSS 1541 with a grade of “C” or better  
Enrollment Limitation: To enroll in this course (FSS 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. Hours: 29 hours LEC; 3 hours LAB  
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.

**FSS 1543**  
**Advanced Fire Behavior Calculations (S-490)**  
2 Units  
Prerequisite: FSS 1542 with a grade of “C” or better  
Enrollment Limitation: To enroll in this course (FSS 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). Hours: 34 hours LEC; 6 hours LAB  
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.

**FSS 1544**  
**Intermediate National Fire Danger Rating System (S-491)**  
1.5 Units  
Prerequisite: FSS 1541 and 1556 with grades of “C” or better  
Enrollment Limitation: To enroll in this course (FSS 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 Windows' 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). Hours: 24 hours LEC; 12 hours LAB  
This course provides the knowledge and skills necessary to operate, apply, and manage the National Fire Danger Rating System (NDFRS). Topics include NDFRS input, calculations and inputs, data retrieval and analysis, decisions, and application. Pass/No Pass only.

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American River College Catalog 2019-2020
FFS 1545  Prescribed Fire Implementation (RX301)  1 Unit
Prerequisite: FFS 1542 with a grade of “C” or better
Advisory: Students desiring to take both RX-341 (Prescribed Fire Plan Preparation) and RX-301 will benefit from taking RX-341 first.
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.
Hours: 26 hours LEC; 6 hours LAB
This course prepares students with the skills/knowledge to prepare 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)  1.25 Units
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) an understanding of basic ecological principles.
Hours: 21.5 hours LEC; 10.5 hours LAB
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)  1.5 Units
Prerequisite: FFS 1542 with a grade of “C” or better
Advisory: Students desiring to take both RX-341 and RX-301 (Prescribed Fire Implementation) will benefit from taking RX-341 first.
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).
Hours: 26 hours LEC; 6 hours LAB
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)  1.5 Units
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 management.
Hours: 28 hours LEC; 4 hours LAB
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)  1.25 Units
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 Section Chief type 2 (LSC2).
Hours: 24 hours LEC
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)  1 Unit
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.
Hours: 15.5 hours LEC; 8.5 hours LAB
This course provides local and State-level emergency responders with an overview of key duties and responsibilities of a Resources Unit Leader (RESU) 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.
FIRE TECHNOLOGY

FFS 1553 Incident Training Specialist (S-445) 1 Unit
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. Hours: 18 hours LEC

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) 1 Unit
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. Hours: 16 hours LEC; 8 hours LAB

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) 2 Units
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. Hours: 35 hours LEC; 5 hours LAB

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, 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) 1 Unit
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 basecamp manager (BCMG). Hours: 20.5 hours LEC; 3.5 hours LAB

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) .5 Unit
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. Hours: 12 hours LEC; 4 hours LAB

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) 1.25 Units
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. Hours: 21 hours LEC; 9 hours LAB

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) 1.5 Units
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. Hours: 28 hours LEC; 4 hours LAB

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 1.25 Units
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. Hours: 23.5 hours LEC; 4.5 hours LAB

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) 1.25 Units

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.

Hours: 16 hours LEC; 4 hours LAB

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) 1.25 Units

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.

Hours: 24 hours LEC

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) .75 Units

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.

Hours: 16 hours LEC; 4 hours LAB

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) 1 Unit

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.

Hours: 17.5 hours LEC; 6.5 hours LAB

This course provides the technical skills and knowledge needed to fulfill the role of Human Resource Specialist (HRSIP) 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) 1 Unit

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) have successfully completed Introduction to Incident Command System (ICS), I-100, which is an online course provided by Federal Emergency Management Agency (FEMA).

Hours: 20 hours LEC

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) 1.5 Units

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).

Hours: 30 hours LEC; 2 hours LAB

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.
American River College offers courses in foreign languages designed to help students develop a command of a variety of languages necessary to pursue career, transfer and degree goals.

**Language Studies Degree**

**Major Code: 011158A01**

The Language Studies 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 work place. Students who work closely with their counselors can use this area of emphasis to prepare for majoring at a four-year college in foreign languages as well as any other majors which require proficiency in one or more foreign languages.

**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.

**Requirements for Degree**

18 Units

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

- ENGWR 300 College Composition (3)
- or ENGWR 480 Honors College Composition (3)
- ENGWR 301 College Composition and Literature (3)
- or ENGWR 481 Honors College Composition and Literature (3)
- ENGWR 302 Advanced Composition and Critical Thinking (3)
- or ENGWR 482 Honors Advanced Composition and Critical Thinking (3)
- ENGWR 303 Argumentative Writing and Critical Thinking Through Literature (4)
- SPEECH 301 Public Speaking (3)
- SPEECH 331 Group Discussion (3)
- SPEECH 361 The Communication Experience (3)

And a minimum of 12 units from the following: ............................. 12

- 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)
- FREN 401 Elementary French (4)
- FREN 402 Elementary French (4)
- FREN 411 Intermediate French (4)
- FREN 412 Intermediate French (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)
- SPAN 401 Elementary Spanish (4)
- SPAN 402 Elementary Spanish (4)
- SPAN 411 Intermediate Spanish (4)
- SPAN 412 Intermediate Spanish (4)

These 12 units must be completed in a single language.

**Associate Degree Requirements:** The Language Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

**Spanish A.A. for Transfer (AA-T) Degree**

**Major Code, CSU GE: 011671A01**

**Major Code, IGETC: 011671A02**

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

**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 the Spanish-speaking countries.
- utilize correct grammatical structures of standard Spanish.
- read Spanish proficiently as found, for example, in Spanish language newspapers, magazines, short stories, essays, and selections of poetry written by Spanish, Spanish-American, and Chicano authors.
- demonstrate appropriate writing and composition skills in Spanish.
- critique and discuss Latin American and Peninsular 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 one’s own culture.
- compare and contrast aspects of Spanish to another modern language.
Career Opportunities

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, Foreign Language Teacher, imports and exports, international business, intelligence/military services, IRS/State Franchise Tax Board, law enforcement/correctional officer, social services, translating/interpreting, and tourism. Some careers may require additional training specific to the trade.

Requirements for Degree  19 Units

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>SPAN 401</td>
<td>Elementary Spanish</td>
<td>4</td>
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<tr>
<td>SPAN 402</td>
<td>Elementary Spanish</td>
<td>4</td>
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<td>SPAN 411</td>
<td>Intermediate Spanish</td>
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<td>FREN 411</td>
<td>Intermediate French</td>
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<td>FREN 412</td>
<td>Intermediate French</td>
<td>4</td>
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<tr>
<td>HIST 327</td>
<td>History of the Chicano/Mexican American</td>
<td>3</td>
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<td>HIST 373</td>
<td>History of Mexico</td>
<td>3</td>
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<tr>
<td>ITAL 411</td>
<td>Intermediate Italian</td>
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<tr>
<td>ITAL 412</td>
<td>Intermediate Italian</td>
<td>4</td>
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<tr>
<td>SOC 325</td>
<td>Chicano Culture</td>
<td>3</td>
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<tr>
<td>SPAN 361</td>
<td>Conversational Spanish, Intermediate</td>
<td>3</td>
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And a minimum of 3 units from the following:

- FREN 411 Intermediate French (4)
- FREN 412 Intermediate French (4)
- ITAL 411 Intermediate Italian (4)
- ITAL 412 Intermediate Italian (4)
- HIST 327 History of the Chicano/Mexican American (3)
- HIST 373 History of Mexico (3)
- SOC 325 Chicano Culture (3)

Associate in Arts for Transfer Degree Requirements: 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) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

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**French**

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>FREN 401</td>
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<td>FREN 412</td>
<td>Intermediate French</td>
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</tbody>
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**FREN 401 Elementary French**  4 Units

General Education: AAAS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC

This course introduces the language and culture of the French-speaking world. It includes the development of listening, speaking, reading, and writing French with emphasis on the communicative skills, as well as the fundamentals of French pronunciation and grammar.

**FREN 402 Elementary French**  4 Units

Prerequisite: FREN 401 with a grade of “C” or better or 2 years of high school French.
General Education: AAAS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC

This course follows FREN 401 and provides continued development of all language skills (listening, speaking, writing, and reading), with emphasis on communicative skills. Language acquisition is approached through a historical and cultural perspective.

**FREN 411 Intermediate French**  4 Units

Prerequisite: FREN 402 with a grade of “C” or better or 3 years of high school French.
General Education: AAAS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6, Course Transferable to UC/CSU
Hours: 72 hours LEC

This is the first course in a two-course sequence designed for intermediate students of French. It builds on the skills acquired in beginning level French in order to increase students’ active vocabulary, reinforce their mastery of basic grammar, and develop their ability to deal with more complex structures (ex. verbal phrases, subordinate clauses). Films, phonetic exercises, and other auditory materials, as well as a variety of readings (literary classics, non-fiction, contemporary journalism, etc.) are used to increase students’ proficiency in French, increase historical and cultural awareness, and also to develop critical thinking skills. It provides opportunities for students to use more language, with greater flexibility and proficiency, on a wider range of topics, and to speak and write at greater lengths. Additionally, it includes additional exploration of French and Francophone cultures. This course prepares students for FREN 412.

**FREN 412 Intermediate French**  4 Units

Prerequisite: FREN 411 with a grade of “C” or better or 4 years of high school French.
General Education: AAAS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6, Course Transferable to UC/CSU
Hours: 72 hours LEC

This course is the second course in a two-course sequence designed for intermediate students of French. This course advances students’ vocabulary and solidifies their command of grammar, including more complex components. It also enables increased comprehension of and proficiency in French. Lastly, it expands their historical and cultural knowledge of the French and Francophone worlds, furthering greater cross-cultural awareness.
<table>
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<th>German</th>
<th>Italian</th>
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| **GERM 351 Conversational German, Elementary 3 Units**  
*Course Transferable to CSU*  
*Hours: 72 hours LEC*  
This course is designed for students at the first-year level in German. Conversations and discussions, both controlled and spontaneous, are used to develop basic skills in German. Emphasis includes oral proficiency and development of German cultural awareness. | **ITAL 351 Conversational Italian, Elementary I 3 Units**  
*Course Transferable to CSU*  
*Hours: 54 hours LEC*  
This course is designed for students at the first-year level in Italian. Conversations and discussions, both controlled and spontaneous, are used to develop basic conversational skills in Italian. Emphasis includes oral proficiency and development of Italian cultural awareness. |
| **GERM 352 Conversational German, Elementary 3 Units**  
*Prerequisite: GERM 351 with a grade of “C” or better or two years of high school German*  
*Course Transferable to CSU*  
*Hours: 72 hours LEC*  
This course is designed for students at the second-year level in German. It continues the development of oral-aural skills in German through conversations and discussions, both controlled and spontaneous. Emphasis includes oral proficiency and development of German cultural awareness. | **ITAL 352 Conversational Italian, Elementary II 3 Units**  
*Prerequisite: ITAL 351 with a grade of “C” or better or two years of high school Italian*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC*  
This course is designed for students at the second-year level in Italian. It continues the development of oral-aural skills in Italian through conversations and discussions, both controlled and spontaneous. Emphasis includes oral proficiency and development of Italian cultural awareness. |
| **GERM 401 Elementary German I 4 Units**  
*General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6, Course Transferable to UC/CSU*  
*Hours: 72 hours LEC*  
This course is 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. | **ITAL 401 Elementary Italian 4 Units**  
*General Education: AA/AS Area I; IGETC Area 6*  
*Course Transferable to UC/CSU*  
*Hours: 72 hours LEC*  
This course is an introduction to the Italian language and culture of Italy. 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. |
| **GERM 402 Elementary German II 4 Units**  
*Prerequisite: GERM 401 with a grade of “C” or better or two years of high school German*  
*General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6, Course Transferable to UC/CSU*  
*Hours: 72 hours LEC*  
This course continues to develop proficiency in speaking, reading, and writing German. It also explores the German culture and affords opportunities to make cross-linguistic and cross-cultural comparisons. | **ITAL 402 Elementary Italian 4 Units**  
*Prerequisite: ITAL 401 with a grade of “C” or better or 2 years of high school Italian*  
*General Education: AA/AS Area I; IGETC Area 6*  
*Course Transferable to UC/CSU*  
*Hours: 72 hours LEC*  
This course provides continued development of the language and explores history and culture of Italian society. It includes further development of listening, speaking, reading, and writing Italian and emphasizes communicative skills, as well as the fundamentals of Italian pronunciation and grammar. |
| **GERM 411 Intermediate German 4 Units**  
*Prerequisite: GERM 402 with a grade of “C” or better or three years of high school German*  
*General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6, Course Transferable to UC/CSU*  
*Hours: 72 hours LEC*  
This course, 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 affords opportunities to make cross-linguistic and cross-cultural comparisons. | **ITAL 411 Intermediate Italian 4 Units**  
*Prerequisite: ITAL 402 with a grade of “C” or better or 3 years of high school Italian*  
*General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6, Course Transferable to UC/CSU*  
*Hours: 72 hours LEC*  
This is the third course in a series of four Italian courses. It continues to develop proficiency in speaking, listening, reading and writing Italian. It reviews Italian grammar and offers readings of varied texts, many of which explore the historic, artistic and cultural backgrounds of Italy. It also explores the culture of Italy and affords opportunities to make cross-linguistic and cross-cultural comparisons. |
| **GERM 412 Intermediate German 4 Units**  
*Prerequisite: GERM 411 with a grade of “C” or better or four years of high school German*  
*General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6, Course Transferable to UC/CSU*  
*Hours: 72 hours LEC*  
This course continues development of listening, speaking, reading, and writing skills through reading, discussing, and interpreting various works of German literature; writing summaries, reports and short compositions; and studying the historical, artistic, and cultural background of the German-speaking world. | **ITAL 412 Intermediate Italian 4 Units**  
*Prerequisite: ITAL 411 with a grade of “C” or better or 4 years of high school Italian*  
*General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6, Course Transferable to UC/CSU*  
*Hours: 72 hours LEC*  
This course continues the development of the four basic skills: reading, writing, speaking and listening through reading and discussion of major types of Italian literature (short story, drama, poetry). Writing of paragraphs and short compositions is included. The course discusses the historical and cultural background of the Italian-speaking world. |
RUSS 401  Elementary Russian  4 Units
General Education: AA/AS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
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.

RUSS 402  Elementary Russian  4 Units
Prerequisite: RUSS 401 with a grade of “C” or better OR two years of high school Russian.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course 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  4 Units
Prerequisite: RUSS 402 with a grade of “C” or better, or three years of high school Russian.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This 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 413  Russian for Heritage Speakers I  4 Units
Prerequisite: RUSS 411 or Russian heritage speaker proficiency as assessed by an oral interview with the instructor in Russian.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course 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.

SPAN 131  Elementary Spanish Lab I  .5-1 Unit
Advisory: Concurrent enrollment in SPAN 401.
Hours: 27-54 hours LAB
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  .5-1 Unit
Advisory: SPAN 131, or concurrent enrollment in SPAN 402.
Hours: 27-54 hours LAB
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  .5-1 Unit
Advisory: SPAN 132 or concurrent enrollment in SPAN 411.
Hours: 27-54 hours LAB
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 351  Conversational Spanish, Elementary  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to the language and culture of the Spanish-speaking world. 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.

SPAN 352  Conversational Spanish, Elementary  3 Units
Prerequisite: SPAN 351 OR SPAN 401 with a grade of “C” or better or two years of high school Spanish.
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Prerequisite: SPAN 352 OR SPAN 402 with a grade of “C” or better, or three years of high school Spanish.
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Prerequisite: SPAN 361 OR Spanish 411 with a grade of “C” or better or 4 years high school Spanish
Course Transferable to CSU
Hours: 54 hours LEC
This fourth-semester 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. Class discussions and group interaction, both controlled and spontaneous, are used to develop conversational skills in Spanish.

SPAN 401 Elementary Spanish 4 Units
General Education: AA/AS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
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. (C-ID SPAN 100)

SPAN 402 Elementary Spanish 4 Units
Prerequisite: SPAN 401 with a grade of “C” or better or two years of high school Spanish.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course 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. (C-ID SPAN 110)

SPAN 411 Intermediate Spanish 4 Units
Prerequisite: SPAN 402 with a grade of “C” or better OR three years of high school Spanish.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This 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. (C-ID SPAN 200)

SPAN 412 Intermediate Spanish 4 Units
Prerequisite: SPAN 411 with a grade of “C” or better or 4 years of high school Spanish
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This 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 reviews and provides further study and complex grammar topics of the cultural and historical background of Spanish-speaking countries as well as their major literary types and works. (C-ID SPAN 210)

SPAN 427 Introduction to Spanish American Literature 3 Units
Prerequisite: SPAN 412 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This 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.
American River College Catalog 2019-2020

Degree: A.S. - Funeral Service Education
Area: Health & Education
Dean: Jan DeLapp
Coordinator: Valarie Rose
Phone: (916) 484-8145 or 484-8432
Counseling: (916) 484-8572

Career Opportunities
The student is eligible to take the National and State Board examination to become a licensed funeral director in California. The student also meets the criteria to take the National and State embalmer’s examination.

Program Goals and Objectives
As an accredited mortuary college our program goals and objectives are as follows:
• To prepare students to be members of a human services profession
• To prepare students to be members of the community in which they serve
• To be participants in the relationship between bereaved families and those engaged in the funeral service profession
• To offer professional knowledge of and compliance with federal, state provincial/territorial, and local regulatory guidelines
• To be sensitive to the responsibility for public health, safety and welfare in caring for human remains

The Primary Objectives of this Program are:
• To enlarge the background and knowledge of students about the funeral service profession
• To educate students in every phase of funeral service, and to help enable them to develop the proficiency and skills necessary for the profession as defined by the American Board of Funeral Service Education, Inc.
• To educate students concerning the responsibilities of the funeral services profession to the community at large
• To emphasize high standards of ethical conduct
• To provide a curriculum at the post-secondary level of instruction
• To encourage student and faculty research in the field of funeral service
• To equip students with information related to the social, legal, psychological, religious and public health issues that are associated with death
• To offer students a comprehensive curriculum that will challenge their academic abilities that are consistent with the curriculum required by the American Board of Funeral Service Education, Inc.
• To prepare students for success on the National Board Examination as well as state examinations

Funeral Service Education Degree
Major Code: 011516A01
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 Funeral Service Education 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: abfse.org

NOTE: All courses, including general education, require a grade of “C” or better.

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: abfse.org.

National Board Examination scores, graduation rates, and employment rates for this and other ABFSE-accredited programs are available at 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.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• choose the correct techniques for each embalming case.
• analyze information given by the family to complete the necessary paperwork for the state of California and other government agencies.
• recommend options for the appropriate disposition of the decedent’s remains.
• contact the appropriate clergy, agencies, and organizations for the disposition of the remains.
• evaluate and prioritize the funeral choices of the family in a timely manner.
• create a funeral service for the family.
• participate as a volunteer in a community service activity.
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 General Educational Development (GED) Test or California High School Proficiency Examination (CHSPE).
- The Funeral Service education program has two options for sequence. Each sequence has specific requirements.

(One Year Sequence) A cumulative college GPA of 2.0 and a grade of "C" or better in the following courses: ACCT 101, BIOL 102 or BIOL 103, BUS 340, ENGWR 300 or ENGWR 480, FSE 300, and MATH 120, SPEECH 301 or 331, PSYC 390. In addition, the General Education requirements for graduation must be satisfied in the following areas: Humanities, Social and Behavioral Sciences, Living Skills and Ethnic/ Multicultural studies.

The FSE program will allow grades in-progress during the application process.

(Two Year Sequence) BIOL 102 or BIOL 103, ENGWR 300 or ENGWR 480, FSE 300, and MATH 100 with a grade of "C" or better. The FSE program will allow grades in-progress during the application process.

- 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 pre-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 arc.losrios.edu. The Funeral Service Education program currently accepts students once per year for the Spring semester which begins in January. Deadline to submit the application is by the second Friday in November.
- 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 random selection process 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 need to reapply.

Requirements for Degree 67.5 Units
1 YEAR SEQUENCE
Pre-FSE Semester
All general education requirements for graduation must be completed prior to the first day of instruction.
1st Semester
CHEM 130 Chemistry for Funeral Service .............................................4
FSE 310 Funeral Directing I .................................................................3
FSE 320 Funeral Service Law and Ethics .............................................3
FSE 350 Restorative Art .....................................................................3.5
FSE 360 Embalming I .......................................................................4
Summer
FSE 335 Funeral Service Management .............................................3
FSE 340 Pathology for Funeral Service .............................................2
2nd Semester
BIOL 130 Microbiology for Funeral Services .....................................3
FSE 312 Funeral Directing II ...............................................................3
FSE 330 Merchandising in the Funeral Service Industry ..................3
FSE 297 Internship in Funeral Service Education .............................5
FSE 365 Embalming II .....................................................................2
FSE 370 Funeral Services Counseling .............................................3
TWO YEAR SEQUENCE
Pre-FSE Semester
BIOL 102 Essentials of Human Anatomy and Physiology (4) ..........4
or BIOL 103 Human Anatomy for Funeral Services (4) ................4
ENGWR 300 College Composition (3) .............................................3
or ENGWR 480 Honors College Composition (3) .........................3
FSE 300 Introduction to Funeral Service .........................................2
MATH 100 Elementary Algebra .....................................................5
1st Semester
BUS 340 Business Law .....................................................................3
CHEM 130 Chemistry for Funeral Service ........................................4
FSE 310 Funeral Directing I .................................................................3
FSE 320 Funeral Service Law and Ethics .............................................3
SPEECH 301 Public Speaking (3) ....................................................3
or SPEECH 331 Group Discussion (3)
Summer
FSE 335 Funeral Service Management .............................................3
FSE 340 Pathology for Funeral Service .............................................2
2nd Semester
BIOL 130 Microbiology for Funeral Services .....................................3
FSE 312 Funeral Directing II ...............................................................3
FSE 330 Merchandising in the Funeral Service Industry ..................3
3rd Semester
ACCT 101 Fundamentals of College Accounting ...........................3
FSE 350 Restorative Art .....................................................................3.5
FSE 360 Embalming I .......................................................................4
Summer (if not taken previously)
FSE 335 Funeral Service Management (3)
FSE 340 Pathology for Funeral Service (2)
4th Semester
FSE 297 Internship in Funeral Service Education .............................5
FSE 365 Embalming II .....................................................................2
FSE 370 Funeral Services Counseling .............................................3
PSYC 390 Psychology of Death and Dying .....................................3
Associate Degree Requirements: The Funeral Service Education Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
American River College Catalog 2019-2020

**Funeral Service Education**

**FSE 297  Internship in Funeral Service Education  5 Units**
Prerequisite: ACCT 101, BIOL 130, BUS 340, FSE 312, FSE 350, and FSE 360 with grades of “C” or better
Corequisite: FSE 365, FSE 370, and PSYC 390
Enrollment Limitation: Students must show proof they have completed all general education and competency requirements for graduation.
Hours: 18 hours LEC; 216 hours LAB

This course provides an opportunity to apply classroom instruction in funeral service education to real-world practice in the community. Interns 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.

**FSE 300  Introduction to Funeral Service  2 Units**
Advisory: ENGW 300, ENGW 480, or ESLW 340
Hours: 36 hours LEC

This course is a survey of the history of the funeral service industry and a comprehensive overview of the field of funeral service. Emphasis is on the role and skills of the funeral service practitioner. The course provides insight into the funeral service industry and the career opportunities available. Field trips may be required.

**FSE 310  Funeral Directing I  3 Units**
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.
Hours: 36 hours LEC; 54 hours LAB

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  3 Units**
Prerequisite: FSE 310 and 320 with grades of “C” or better
Corequisite: BIOL 130, FSE 330, and FSE 340
Enrollment Limitation: Student must be enrolled in the Funeral Service Education program to enroll in this course.
Course Transferable to CSU.
Hours: 36 hours LEC; 54 hours LAB

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  3 Units**
Corequisite: CHEM 130 and FSE 310
Enrollment Limitation: Acceptance into the Funeral Service Education Program.
Hours: 54 hours LEC

This course introduces law and the judicial system as they pertain to the funeral industry. Topics include sources of law, the legal status of the 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  3 Units**
Prerequisite: FSE 310 and 320 with grades of “C” or better
Corequisite: BIOL 130, FSE 312, and FSE 340
Hours: 54 hours LEC

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 may be required.

**FSE 335  Funeral Service Management  3 Units**
Corequisite: ACCT 101 or 301
Enrollment Limitation: Acceptance into the Funeral Service Education Program.
Hours: 54 hours LEC

This course introduces the basic principles of management as they apply to the practice of the funeral profession. The role and function of an effective manager are explored. Emphasis is placed on the management functions of planning, organizing, motivating, directing, and controlling. Specific areas of funeral service practice and managerial guidelines for those areas are covered. Additionally, management theory as it relates to funeral service practice is addressed. Field trips may be required.

**FSE 340  Pathology for Funeral Service  2 Units**
Prerequisite: CHEM 130 or 305 with a grade of “C” or better
Corequisite: BIOL 130, BIOL 440, FSE 312, or FSE 330
Hours: 36 hours LEC

This course offers a study of pathological disease conditions and how they affect various parts of the body. Particular conditions that relate to or affect the embalming or restorative art process are emphasized.
FSE 350 Restorative Art  3.5 Units  
Corequisite: FSE 360 AND ACCT 101 or ACCT 301  
Enrollment Limitation: Acceptance into the Funeral Service Education program.  
Course Transferable to CSU  
Hours: 54 hours LEC; 27 hours LAB  
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  4 Units  
Corequisite: FSE 350 AND ACCT 101 or ACCT 301  
Enrollment Limitation: Acceptance into the Funeral Service Education program.  
Hours: 54 hours LEC; 54 hours LAB  
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  2 Units  
Prerequisite: FSE 350 and 360 with grades of “C” or better  
Corequisite: FSE 297 and 370  
Enrollment Limitation: Students must show proof they are within the final semester of coursework including funeral service education courses, general education courses, and competencies.  
Hours: 36 hours LEC  
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  3 Units  
Prerequisite: FSE 335, 350, and 360 with grades of “C” or better  
Corequisite: FSE 297, FSE 365, and PSYC 390  
Hours: 54 hours LEC  
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 may be required.
DEGREES AND CERTIFICATES

Geography Degree
Major Code: 011536A01

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. With two exceptions, all courses satisfy the Intersegmental General Education Transfer Curriculum (IGETC) that meets freshman/sophomore level general education requirements at a UC. 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.

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 Opportunities

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 such as 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.

Requirements for Degree

20 - 26 Units

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>GEOG 300</td>
<td>Physical Geography: Exploring Earth's Environmental Systems</td>
</tr>
<tr>
<td>GEOG 301</td>
<td>Physical Geography Laboratory</td>
</tr>
<tr>
<td>GEOG 310</td>
<td>Human Geography: Exploring Earth's Cultural Landscapes</td>
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A minimum of 6 units from the following:

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<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>GEOG 305</td>
<td>Global Climate Change</td>
</tr>
<tr>
<td>GEOG 306</td>
<td>Weather and Climate</td>
</tr>
<tr>
<td>GEOG 307</td>
<td>Environmental Hazards and Natural Disasters</td>
</tr>
<tr>
<td>GEOG 308</td>
<td>Introduction to Oceanography</td>
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<tr>
<td>GEOG 309</td>
<td>Introduction to Oceanography Lab</td>
</tr>
<tr>
<td>GEOG 310</td>
<td>Introduction to Oceanography Lab</td>
</tr>
<tr>
<td>GEOG 320</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>GEOG 322</td>
<td>Geography of California</td>
</tr>
</tbody>
</table>

1 GEOG 331 is recommended for students who plan to transfer to a California State University.

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

Geography A.A. for Transfer Degree
Major Code, CSU GE: 011535A01
Major Code, IGETC: 011535A02

The Associate in Arts in Geography for 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.

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

In addition to fulfilling transfer requirements, this degree exposes students to the core principles and practices of Geography. Students interested in transferring to a CSU campus to pursue a bachelor's degree in geography should meet with a counselor to confirm the courses required for lower division preparation in the major. Although additional preparatory courses are not required for this degree, a careful review of the requirements at your chosen CSU will increase the likelihood that your transfer experience is smooth and successful.
American River College Catalog 2019-2020

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 Opportunities
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.

Requirements for Degree 19 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 300</td>
<td>Physical Geography: Exploring Earth's Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 301</td>
<td>Physical Geography Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 310</td>
<td>Human Geography: Exploring Earth's Cultural Landscapes</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 6 units from the following: 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 306</td>
<td>Weather and Climate</td>
</tr>
<tr>
<td>GEOG 320</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>GEOG 322</td>
<td>Geography of California</td>
</tr>
<tr>
<td>GEOG 331</td>
<td>Exploring Maps and Geographic Technologies</td>
</tr>
<tr>
<td>GEOG 391</td>
<td>Field Studies in Geography: Mountain Landscapes</td>
</tr>
<tr>
<td>GEOG 392</td>
<td>Field Studies in Geography: Coastal Landscapes</td>
</tr>
<tr>
<td>GEOG 393</td>
<td>Field Studies in Geography: Arid Landscapes</td>
</tr>
<tr>
<td>GEOG 394</td>
<td>Field Studies in Geography: Volcanic Landscapes</td>
</tr>
</tbody>
</table>

A minimum of 6 units from the following: 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>GEOG 305</td>
<td>Global Climate Change</td>
</tr>
<tr>
<td>GEOG 307</td>
<td>Environmental Hazards and Natural Disasters</td>
</tr>
<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems</td>
</tr>
<tr>
<td>GEOG 300</td>
<td>Physical Geology</td>
</tr>
</tbody>
</table>

*Students may also substitute any course from the previous list not already taken to fulfill degree requirements.

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

Geographic Information Systems (GIS) Degree
Major Code: 011364A01

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.

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.
• 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.

(continued on next page)
(Geographic Information Systems (GIS) Degree continued)

**Career Opportunities**

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.

**Requirements for Degree**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
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<tr>
<td>GEOG 334</td>
<td>Introduction to GIS Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 340</td>
<td>Cartographic Design for GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 342</td>
<td>Introduction to Remote Sensing and Digital Image Processing</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 344</td>
<td>Spatial Analysis and Modeling in GIS</td>
<td>3</td>
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<tr>
<td>GEOG 350</td>
<td>Data Acquisition in GIS</td>
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<tr>
<td>GEOG 354</td>
<td>Introduction to the Global Positioning System (GPS)</td>
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<tr>
<td>GEOG 360</td>
<td>Database Design and Management in GIS</td>
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<td>GEOG 362</td>
<td>Advanced Database Design and Management in GIS</td>
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<td>GEOG 375</td>
<td>Introduction to GIS Programming</td>
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<td>GEOG 385</td>
<td>Introduction to Web Based GIS Application Development</td>
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<tr>
<td>GEOG 498</td>
<td>Work Experience in Geography</td>
<td>1 - 4</td>
</tr>
</tbody>
</table>

**Associate Degree Requirements:** The Geographic Information Systems (GIS) Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

**General Science Degree**

**Major Code:** 011364C01

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.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

- 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.

**Requirements for Degree**

A minimum of 18 units from the following: .................................................. 18

**Physical Science Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
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**Biological Science Courses:**

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<td>ANTH 301</td>
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<tr>
<td>ANTH 303</td>
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<td>ANTH 490</td>
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</table>

**Geographic Information Systems (GIS) - Certificate**

**Major Code:** 011364C01

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.

**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 Opportunities
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.

See losrios.edu/gainful-emp-info/gdct.php?major=011364C01 for Gainful Employment Disclosure.

Requirements for Certificate  29.5-32.5 Units

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<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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<tbody>
<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 334</td>
<td>Introduction to GIS Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 340</td>
<td>Cartographic Design for GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 342</td>
<td>Introduction to Remote Sensing and Digital Image Processing</td>
<td>3</td>
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</table>

GEOG 344 Spatial Analysis and Modeling in GIS ................................. 3
GEOG 350 Data Acquisition in GIS .................................................. 3
GEOG 354 Introduction to the Global Positioning System (GPS) ............. 1.5
GEOG 360 Database Design and Management in GIS ................................ 3
GEOG 498 Work Experience in Geography ........................................... 1 - 4

And 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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GEOG 300</td>
<td>Physical Geography: Exploring Earth’s Environmental Systems 3 Units</td>
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</tr>
<tr>
<td>GEOG 301</td>
<td>Physical Geography Laboratory 1 Unit</td>
<td></td>
</tr>
<tr>
<td>GEOG 305</td>
<td>Global Climate Change 3 Units</td>
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</tr>
</tbody>
</table>

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GEOG 306 Weather and Climate 3 Units
Advisory: MATH 32 or 42; and Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferrable to UC/CSU
Hours: 54 hours LEC
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. (C-ID GEOG 130)

GEOG 307 Environmental Hazards and Natural Disasters 3 Units
Same As: GEOL 325
Advisory: MATH 100, 104, or 132; AND eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300, OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferrable to UC/CSU
Hours: 54 hours LEC
This course covers the environmental effects and applications of Earth-related processes. It focuses on earthquakes, volcanic eruptions, landslides, flooding, hurricanes, as well as covering related current events. Topics also 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. One field trip is required. This course is not open to students who have completed GEOL 325.

GEOG 308 Introduction to Oceanography 3 Units
Same As: GEOL 330
Advisory: GEOG 301 or GEOL 301
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferrable to UC/CSU
Hours: 54 hours LEC
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 its biosystems. Humans have impacted nearly all aspects of the oceans, which are critical to our species. Regional oceanographic features are emphasized and a field trip to gain familiarity with regional physical shoreline features is required. This course is not open to students who have completed GEOL 330.

GEOG 309 Introduction to Oceanography Lab 1 Unit
Same As: GEOL 331
Corequisite: GEOG 308 or GEOL 330
Advisory: GEOG 301 and GEOL 301
General Education: CSU Area B3; IGETC Area 5C
Course Transferrable to UC/CSU
Hours: 54 hours LAB
This course is a laboratory investigation of Earth’s oceans, emphasizing coastal processes of California. Most laboratory exercises are incorporated into field studies of California’s coast, which involves visiting and comparing several distinct coastal environments. Camping is required, and a small fee is to be paid by the student. This course is not open to students who have completed GEOL 331.

GEOG 310 Human Geography: Exploring Earth’s Cultural Landscapes 3 Units
Advisory: MATH 32 or 42 with a grade of “C” or better or placement through the assessment process; AND eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4E
Course Transferrable to UC/CSU
Hours: 54 hours LEC
This course investigates the diverse patterns of human settlement, development, and movement on earth, which evolved as a result of cultural and environmental factors. Emphasis is placed on understanding global population and migration patterns, language, religion, ethnicity, political and economic systems, development issues, agriculture, and urbanization. (C-ID GEOG 120)

GEOG 312 World Regional Geography 3 Units
Advisory: MATH 32 or 42; and eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300, OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4E
Course Transferrable to UC/CSU
Hours: 54 hours LEC
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. Historical, political, and economic development within this diverse environment is presented. 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, forms an integral part of this course. (C-ID GEOG 140)

GEOG 316 Introduction to Geographic Information Systems 3 Units
Advisory: CISC 300
General Education: AA/AS Area I(b)
Course Transferrable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Advisory: CISC 300 and GEOG 300
General Education: AA/AS Area IV (effective Summer 2017)
Course Transferable to UC/CSU
Hours: 50 hours LEC; 12 hours LAB
This course introduces students to the world of maps (both hard-copy and digital) and the geographic techniques and technologies that are utilized in the creation of modern cartographic documents. Examination of cartographic design, basic statistics, the Global Positioning System (GPS), Internet mapping, remote sensing, and Geographic Information Systems (GIS) are covered. (C-ID GEOG 150)

GEOG 334 Introduction to GIS Software Applications 3 Units
Advisory: CISC 300 and GEOG 330
Course Transferable to CSU
Hours: 50 hours LEC; 12 hours LAB
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. (C-ID GEOG 155)

GEOG 340 Cartographic Design for GIS 3 Units
Prerequisite: GEOG 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Prerequisite: GEOG 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 50 hours LEC; 12 hours LAB
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 3 Units
Prerequisite: GEOG 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
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 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 3 Units
Prerequisite: GEOG 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the techniques, theory, and practical experience 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 utilizing digital cameras and scanners, utilization of remotely sensed data, and use of the Global Positioning System (GPS). Field trips may be required.

GEOG 354 Introduction to the Global Positioning System (GPS) 1.5 Units
Advisory: GEOG 300 and 301
Course Transferable to CSU
Hours: 27 hours LEC
This course introduces the Global Positioning System (GPS). Topics include the basic concepts of GPS and hands-on operation of the technology, computer interfaces, Geographic Information Systems (GIS) software, and its use in real-world applications.

GEOG 360 Database Design and Management in GIS 3 Units
Prerequisite: GEOG 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course examines principles of Geographic Information Systems (GIS) database management and design including conversion fundamentals, modeling techniques, and strategic planning. Topics include the needs, alternatives, and pitfalls of spatial database development and conversion. It examines various types of spatial and tabular data applicable to GIS, as well as relevant issues such as hardware and software requirements. Particular attention is paid to determining an appropriate methodology, conversion plan, and data quality assurance procedure.

GEOG 362 Advanced Database Design and Management in GIS 3 Units
Prerequisite: GEOG 360 with a grade of “C” or better
Advisory: CISA 320 and CISC 300
Course Transferable to CSU
Hours: 54 hours LEC
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 data engine service management, spatial functions, multi-user editing, replication, and data organization. It involves the rigorous examination of traditional spatial database topics in a GIS context including data integration, warehousing, complex Structured Query Language (SQL) spatial coding, and system integration.

GEOG 375 Introduction to GIS Programming 3 Units
Prerequisite: GEOG 330 with a grade of “C” or better
Advisory: GEOG 334
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
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 3 Units
Prerequisite: GEOG 330 with a grade of "C" or better
Advisory: CISW 300
Course Transferable to CSU
Hours: 6-24 hours LEC; 36-144 hours LAB
This course introduces the development of Web-based Geographic Information Systems (GIS) solutions. Map authoring and Web service management tools are used to teach the techniques of creating, managing, maintaining, and deploying 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 1-4 Units
Course Transferable to UC/CSU
Hours: 6-24 hours LEC; 36-144 hours LAB
This course introduces the development of Web-based Geographic Information Systems (GIS) solutions. Map authoring and Web service management tools are used to teach the techniques of creating, managing, maintaining, and deploying Web map services. It also introduces several options for using published Web map services for Web-based and mobile mapping applications.

GEOG 392 Field Studies in Geography: Coastal Landscapes 1-4 Units
Course Transferable to UC/CSU
Hours: 6-24 hours LEC; 36-144 hours LAB
This course introduces the development of Web-based Geographic Information Systems (GIS) solutions. Map authoring and Web service management tools are used to teach the techniques of creating, managing, maintaining, and deploying Web map services. It also introduces several options for using published Web map services for Web-based and mobile mapping applications.

GEOG 393 Field Studies in Geography: Arid Landscapes 1-4 Units
Course Transferable to UC/CSU
Hours: 6-24 hours LEC; 36-144 hours LAB
This course introduces the development of Web-based Geographic Information Systems (GIS) solutions. Map authoring and Web service management tools are used to teach the techniques of creating, managing, maintaining, and deploying Web map services. It also introduces several options for using published Web map services for Web-based and mobile mapping applications.

GEOG 394 Field Studies in Geography: Volcanic Landscapes 1-4 Units
Course Transferable to UC/CSU
Hours: 6-24 hours LEC; 36-144 hours LAB
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. (C-ID GEOG 160)

GEOG 395 Independent Studies in Geography 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to geography or geographic information systems (GIS) with a cooperating site supervisor. Students are advised to consult with the Geography Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
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.

**Career Opportunities**

- Geologist • Geophysicist • Groundwater Geologist
- Oil and Gas Geologist • Mineralogist • Paleontologist
- Marine Geologist • Environmental Geologist
- Photogeologist • Seismologist • Consulting Geologist
- Soils Engineer • Land Use Planner • Volcanologist
- Planetary Geologist • Geochemist • Economic Geologist
- Mining Geologist • Hydrologist • Government Geologist
- Coal Geologist • Glacial Geologist
- Vertebrate Paleontologist • Geology Professor
- Earth Science Teacher • Forensic Geologist

This transfer degree can only be awarded using the IGETC pattern.

**Geology A.S. for Transfer Degree**

**Major Code, IGETC: 010642A02**

Geology is an interdisciplinary science that combines geological observations and concepts with those of biology, chemistry, physics, and mathematics. Its goals are to study rocks, minerals, fossils, energy and water resources, and to understand geologic principles and processes that shape Earth and its environments.

The Associate in Science in Geology for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

The Associate in Science in Geology for Transfer (A.S.T.) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and (b) the Intersegmental General Education Transfer Curriculum (IGETC). (continued on next page)
Partial Catalog Entry:

**GEOL 300 Physical Geology** 3 Units
Advisory: MATH 100, 104 or 132; and eligible for ENGRD 310 or ENGRD 312 AND ENGW 300, OR ESLR 340 AND ESLW 340.
General Education: AAAS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an understanding of the dynamic nature of the 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 trips may be required. (C-ID GEOL 100)

**GEOL 301 Physical Geology Laboratory** 1 Unit
Corequisite: GEOL 300
General Education: CSU Area B3; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 trips may be required. (C-ID GEOL 100L)

**GEOL 305 Earth Science** 3 Units
Advisory: MATH 32 or 42; and eligible for ENGRD 310 or ENGRD 312 AND ENGW 300, OR ESLR 340 AND ESLW 340.
General Education: AAAS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is an introductory science course covering 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. (C-ID GEOL 120L)

**GEOL 306 Earth Science Laboratory** 1 Unit
Corequisite: GEOL 305
Advisory: MATH 32 or 42; Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300, OR ESLR 340 AND ESLW 340.
General Education: CSU Area B3; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LAB
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. (C-ID GEOL 120L)

**GEOL 310 Historical Geology** 3 Units
Advisory: MATH 100, MATH 104, or MATH 132; AND eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers geologic history of the Earth as shown by the rock record and by the succession of life 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 rock record and by the succession of fauna and flora through the processes of evolution and extinction. Plate tectonics and the geologic time scale are covered. Field trips may be required. (C-ID GEOL 110)

**GEOL 311 Historical Geology Laboratory** 1 Unit
Corequisite: GEOL 310
Advisory: GEOL 300 and 301
General Education: CSU Area B3; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 trips are required. (C-ID GEOL 110L)
GEOL 320  Global Climate Change  3 Units
Same As: GEOG 305
Advisory: MATH 100 or 104 with a grade of “C” or better; and eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the 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 discusses possible technological and political solutions to this vast and increasingly important problem, and how societies may adapt to the changes. Field trips may be required. This course is not open to students who have completed GEOG 305.

GEOL 325  Environmental Hazards and Natural Disasters  3 Units
Same As: GEOG 307
Advisory: MATH 100, 104, or 132; AND eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the environmental effects and applications of Earth-related processes. It focuses on earthquakes, volcanic eruptions, landslides, flooding, hurricanes, as well as covering related current events. Topics also 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. One field trip is required. This course is not open to students who have completed GEOG 307.

GEOL 330  Introduction to Oceanography  3 Units
Same As: GEOG 308
Advisory: GEOG 300 or GEOG 300
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an 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 its biosystems. Humans have impacted nearly all aspects of the oceans, which are critical to our species. Regional oceanographic features are emphasized and a field trip to gain familiarity with regional physical shoreline features is required. This course is not open to students who have completed GEOG 308.

GEOL 331  Introduction to Oceanography Lab  1 Unit
Same As: GEOG 309
Corequisite: GEOG 308 or GEOG 330
Advisory: GEOG 301 or GEOG 301
General Education: CSU Area B3; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is a laboratory investigation of Earth’s oceans, emphasizing coastal processes of California. Most laboratory exercises are incorporated into field studies of California’s coast, which involves visiting and comparing several distinct coastal environments. Camping is required, and a small fee is to be paid by the student. This course is not open to students who have completed GEOG 309.

GEOL 345  Geology of California  3 Units
Advisory: MATH 32 or MATH 42, AND eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 trips may be required. (C-ID GEOL 200)

GEOL 390  Field Studies in Geology  1-4 Units
Course Transferable to UC/CSU
Course Transferable to UC/CSU
Hours: 6-24 hours LEC; 36-144 hours LAB
This course involves field study of selected locations of geologic interest. Course content varies according to field trip destination but may include topics in physical geology, environmental geology, economic geology, and/or introduction to tools and techniques used for geosciences field research (e.g. map and compass, the Global Positioning System (GPS), Geographic Information Systems (GIS), etc.). Field excursions are required and field trip expense fees may be required. A portion of this course may be offered in a TBA component of 18-144 hours which may include composing field notes, making field sketches, collecting various forms of field data, analysis of field data, and use of maps, compass, and/or the Global Positioning System.

GEOL 495  Independent Studies in Geology  1-3 Units
Prerequisite: None
Course Transferable to CSU
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
Gerontology is the study of human growth and development during adulthood. It includes the psychological and physiological changes that touch each individual, as well as, the social implications that flow from these changes.

The Gerontology program at American River College offers continuing education credit for specific courses for RNs, LVNs, CNAs, RCFE Administrators, LMFTs, LCSWs, and Nursing Home Administrators.

ARC has gained a reputation as a leader in gerontology studies and has been awarded National Program of Merit Status by the Association for Gerontology in Higher Education. The program co-sponsors events with AARP and California Council on Gerontology and Geriatrics. This leadership has enriched its offerings and enhanced the career value of an ARC gerontology degree or certificate.

### DEGREES AND CERTIFICATES

#### Gerontology Degrees/Certificates

**Core Requirements for Degree or Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GERON 300</td>
<td>Sociology of Aging (3)</td>
<td>3</td>
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<tr>
<td>or SOC 335</td>
<td>Sociology of Aging (3)</td>
<td>3</td>
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<tr>
<td>GERON 302</td>
<td>Psychology of Aging: Adult Development and Aging (3)</td>
<td>3</td>
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<td>3</td>
</tr>
<tr>
<td>GERON 334</td>
<td>Reminiscence Therapy (3)</td>
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</tr>
<tr>
<td>or PSYC 379</td>
<td>Reminiscence Therapy (3)</td>
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</tr>
<tr>
<td>GERON 335</td>
<td>Wellness for Older Adults</td>
<td>3</td>
</tr>
<tr>
<td>GERON 360</td>
<td>Ethnic Diversity and Aging</td>
<td>3</td>
</tr>
<tr>
<td>GERON 362</td>
<td>Biology of Aging</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 366</td>
<td>Coping with Death and Related Bereavement</td>
<td>0.5</td>
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<tr>
<td>GERON 368</td>
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<tr>
<td>GERON 490</td>
<td>Aging Policy and Practice</td>
<td>3</td>
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<tr>
<td>HSER 340</td>
<td>Introduction to Chemical Dependency (3)</td>
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</tr>
<tr>
<td>or PSYC 400</td>
<td>Introduction to Chemical Dependency (3)</td>
<td>3</td>
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</tbody>
</table>

**A.A. Gerontology Degree and Certificate concentrations:**

- Business
- Case Management/Social Services
- Environmental Design
- Health Care
- Recreation
- Social Policy/Advocacy

#### Department Certificates:

- Activity Leader Certification
- Dementia Care
- Elder Care
- Ethnicity and Aging
- Leadership in Assisted Living Communities
- Senior Fitness
- Social Service Designee

### Gerontology: Business Degree

**Major Code: 011300A01**

This degree provides a broad overview of the biological, psychological, and social aspects of aging along with introductory business courses emphasizing the impact of an aging population on business. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing goods and services to senior adults and/or preparation for further gerontology/business study at a four-year college or university.

#### Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
- evaluate the biological, psychological, and social aging changes in terms of optimal aging and the impact of lifestyle choices.
- analyze legal and ethical issues relating to aging and end-of-life decisions.
- demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
- evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
- analyze the role of nutrition in the aging process and its impact on health.
- evaluate care for the dying in different environments.
- assess common mental health issues of aging and evaluate interventions and resources.
- survey services for seniors available within a community and define eligibility requirements.
- apply knowledge of gerontology to real-life business situations.

#### Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing goods and services to senior adults.

#### Gerontology: Business Degree Requirements

**36 Units**

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<tbody>
<tr>
<td>GERON 498</td>
<td>Work Experience in Gerontology (1 - 4)</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
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<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
<td>4</td>
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<tr>
<td>BUS 105</td>
<td>Business Mathematics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 110</td>
<td>Business Economics (3)</td>
<td>3</td>
</tr>
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</table>

And a minimum of 3 units from the following:

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<td>or PSYC 400</td>
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</tbody>
</table>
BUS 320 Concepts in Personal Finance (3) 
or ECON 320 Concepts in Personal Finance (3)
BUS 330 Managing Diversity in the Workplace (3)
BUS 340 Business Law (3)
GERON 304 Ethical Issues and Client's Rights (3)
MGMT 300 Introduction to Leadership in Action (3)
MGMT 304 Principles of Management (3)

Core Requirements 24

And a minimum of 3 units from the following: 3
GERON 498 Work Experience in Gerontology (1 - 4)

And a minimum of 9 units from the following: 9
GERON 310 Social Service Designer: Role and Responsibility (2.5) 
GERON 312 Social Services Designer: Fieldwork (1)
HSER 300 Introduction to Human Services (3)
HSER 310 Ethical Issues and Client's Rights (3)

GERON 304 Ethical Issues and Client's Rights (3)

Associate in Arts Degree: The Gerontology: Case Management/Social Services Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Gerontology: Environmental Design Degree

Major Code: 011297A01

This degree provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory human services and psychology courses emphasizing the diverse needs of an aging population. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing case management and/or social services to senior adults and/or preparation for further gerontology/case management/social services study at a four-year college or university.

Student Learning Outcomes

Upon completion of this program, the student will be able to:
• assess social and cultural attitudes on aging and how they impact social policy regarding the senior population
• evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices
• analyze legal and ethical issues relating to aging and end-of-life decisions
• demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels
• evaluate cognitive levels of seniors and utilize appropriate interational activities and techniques for communication
• analyze the role of nutrition in the aging process and its impact on health
• evaluate care for the dying in different environments
• assess common mental health issues of aging and evaluate interventions and resources
• survey services for seniors available within a community and define eligibility requirements
• apply knowledge of gerontology to real-life case management and social services situations.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing design services to senior adults.

Gerontology: Environmental Design Degree Requirements 36 Units

Core Requirements 24

And a minimum of 3 units from the following: 3
GERON 498 Work Experience in Gerontology (1 - 4)

And a minimum of 9 units from the following: 9
ART 320 Design: Fundamentals (3)
IDES 300 Fundamentals of Interior Design (3)
IDES 330 Beginning Interior Design Studio (3)
IDES 334 Interior Environment and Space Planning (3)

Prerequisite is required for IDES 334

Associate in Arts Degree: The Gerontology: Environmental Design Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Gerontology: Health Care Degree

Major Code: 01X1298A01

This degree provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory coursework work emphasizing the health needs of an aging population. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing health services to senior adults and/or preparation for further gerontology/health care study at a four-year college or university.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
- evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices.
- analyze legal and ethical issues relating to aging and end-of-life decisions.
- demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
- evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
- analyze the role of nutrition in the aging process and its impact on health.
- evaluate care for the dying in different environments.
- assess common mental health issues of aging and evaluate interventions and resources.
- survey services for seniors available within a community and define eligibility requirements.
- apply knowledge of gerontology to real-life health care situations.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing health services to senior adults.

Gerontology: Health Care Degree Requirements 36 Units

Core Requirements .......................................................... 24
And a minimum of 3 units from the following: .......................................................... 3
GERON 498 Work Experience in Gerontology (1 - 4)
And a minimum of 9 units from the following: .......................................................... 9
AH 110 Medical Language for Health-Care Providers (3)
BIOL 102 Essentials of Human Anatomy and Physiology (4)
GERON 304 Ethical Issues and Client’s Rights (3)
OR HSER 310 Ethical Issues and Client’s Rights (3)
NURSE 100 Nurse Assistant (6)
NURSE 101 Home Health Aide (2)
PSYC 390 Psychology of Death and Dying (3)
SLPA 300 Introduction to Communication Disorders (3)

1Prerequisite required for NURSE 101.

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

Gerontology: Recreation Degree

Major Code: 011301A01

This degree provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory recreation and physical education courses emphasizing the recreational needs of an aging population. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing recreational services to senior adults and/or preparation for further gerontology/recreation study at a four-year college or university.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
- evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices.
- analyze legal and ethical issues relating to aging and end-of-life decisions.
- demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
- evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
- analyze the role of nutrition in the aging process and its impact on health.
- evaluate care for the dying in different environments.
- assess common mental health issues of aging and evaluate interventions and resources.
- survey services for seniors available within a community and define eligibility requirements.
- apply knowledge of gerontology to real-life recreation situations.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing recreational services to senior adults.

Gerontology: Recreation Degree Requirements 36 Units

Core Requirements .......................................................... 24
And a minimum of 3 units from the following: .................................................. 3
GERON 498 Work Experience in Gerontology (1 - 4)
And a minimum of 9 units from the following: .................................................. 9
GERON 430 Activity Leader (6.5)
KINES 300 Introduction to Kinesiology (3)
KINES 405 Effects of Exercise on Special Populations (2)
KINES 408 Administration of Fitness Programs (2)

Associate in Arts Degree: The Gerontology: Recreation Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Gerontology: Social Policy/Advocacy Degree

Major Code, Social Policy: 011302A02
Major Code, Advocacy: 011302A03

This degree provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory human services, speech, management, and political science courses emphasizing the social policy and advocacy needs of an aging population. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing input to social policy and advocacy for senior adults and/or preparation for further gerontology/social policy/advocacy study at a four-year college or university.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
- evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices.
- analyze legal and ethical issues relating to aging and end-of-life decisions.
- demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
- evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
- analyze the role of nutrition in the aging process and its impact on health.
- evaluate care for the dying in different environments.
- assess common mental health issues of aging and evaluate interventions and resources.
- survey services for seniors available within a community and define eligibility requirements.
- apply knowledge of gerontology to real-life social policy/advocacy situations.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing input to social policy and advocacy for senior adults.

Gerontology: Advocacy Concentration Requirements 36 Units

Core Requirements ............................................................................................................. 24

And a minimum of 3 units from the following: .......................................................... 3
GERON 498 Work Experience in Gerontology (1 - 4)

And a minimum of 9 units from the following: .......................................................... 9
GERON 304 Ethical Issues and Client’s Rights (3)
or HSER 310 Ethical Issues and Client's Rights (3)
MGMT 362 Techniques of Management (3)
POLS 304 Introduction to Government: California (3)
SPEECH 301 Public Speaking (3)

Gerontology: Social Policy Concentration Requirements 36 Units

Core Requirements ............................................................................................................. 24

And a minimum of 3 units from the following: .......................................................... 3
GERON 498 Work Experience in Gerontology (1 - 4)

And a minimum of 9 units from the following: .......................................................... 9
GERON 304 Ethical Issues and Client’s Rights (3)
or HSER 310 Ethical Issues and Client's Rights (3)
POLS 301 Introduction to Government: United States (3)
HSER 330 Issues of Diverse Populations (3)
or PSYC 365 Issues of Diverse Populations (3)
SPEECH 301 Public Speaking (3)

Associate Degree Requirements: The Gerontology: Social Policy/Advocacy Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Gerontology: Business Certificate

Major Code: 011300C01

This certificate provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory business courses emphasizing the impact of an aging population on business. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing goods and services to senior adults.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
- evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices.
- analyze legal and ethical issues relating to aging and end-of-life decisions.
- demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
- evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
- analyze the role of nutrition in the aging process and its impact on health.
- evaluate care for the dying in different environments.
- assess common mental health issues of aging and evaluate interventions and resources.
- survey services for seniors available within a community and define eligibility requirements.
- apply knowledge of gerontology to real-life business situations.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing goods and services to senior adults.

See losrios.edu/gainful-emp-info/gedt.php?major=011300C01 for Gainful Employment Disclosure.

Gerontology: Business Certificate 36 Units

Core Requirements ............................................................................................................. 24

And a minimum of 3 units from the following: .......................................................... 3
GERON 498 Work Experience in Gerontology (1 - 4)

And a minimum of 9 units from the following: .......................................................... 9
ACCT 101 Fundamentals of College Accounting (3)
or ACCT 301 Financial Accounting (4)
BUS 105 Business Mathematics (3)
or BUS 110 Business Economics (3)
BUS 320 Concepts in Personal Finance (3)
or ECON 320 Concepts in Personal Finance (3)
BUS 330 Managing Diversity in the Workplace (3)
BUS 340 Business Law (3)
GERON 304 Ethical Issues and Client’s Rights (3)
or HSER 310 Ethical Issues and Client's Rights (3)
MGMT 300 Introduction to Leadership in Action (3)
or MGMT 362 Techniques of Management (3)
MGMT 304 Introduction to Management Functions (3)
Gerontology: Case Management/Social Services Certificate

Major Code: 011299C01

This certificate provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory human services and psychology courses emphasizing the diverse needs of an aging population. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing case management and/or social services to senior adults.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
- evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices.
- analyze legal and ethical issues relating to aging and end-of-life decisions.
- demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
- evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
- analyze the role of nutrition in the aging process and its impact on health.
- evaluate care for the dying in different environments.
- assess common mental health issues of aging and evaluate interventions and resources.
- survey services for seniors available within a community and define eligibility requirements.
- apply knowledge of gerontology to real-life case management and social services situations.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing case management and/or social services to senior adults.

See losrios.edu/gainful-emp-info/gedt.php?major=011299C01 for Gainful Employment Disclosure.

Gerontology: Case Management/Social Services Certificate 36 Units

Core Requirements .............................................................................. 24
And a minimum of 3 units from the following: .................................. 3
GERON 498 Work Experience in Gerontology (1 - 4)
And a minimum of 9 units from the following: ..................................... 9
GERON 310 Social Service Designee: Role and Responsibility (2.5)
GERON 312 Social Service Designee: Fieldwork (1)
HSER 300 Introduction to Human Services (3)
HSER 310 Ethical Issues and Client’s Rights (3)
GERON 304 Ethical Issues and Client’s Rights (3)
HSER 330 Issues of Diverse Populations (3)
OR PSYC 365 Issues of Diverse Populations (3)
PSYC 390 Psychology of Death and Dying (3)

Gerontology: Environmental Design Certificate

Major Code: 011297C01

This certificate provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory art and interior design courses emphasizing the environmental needs of an aging population. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing design services to senior adults.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
- evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices.
- analyze legal and ethical issues relating to aging and end-of-life decisions.
- demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
- evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
- analyze the role of nutrition in the aging process and its impact on health.
- evaluate care for the dying in different environments.
- assess common mental health issues of aging and evaluate interventions and resources.
- survey services for seniors available within a community and define eligibility requirements.
- apply knowledge of gerontology and environmental design to real-life design situations.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing environmental design services to senior adults.

See losrios.edu/gainful-emp-info/gedt.php?major=011297C01 for Gainful Employment Disclosure.

Gerontology: Environmental Design Certificate 36 Units

Core Requirements .............................................................................. 24
And a minimum of 3 units from the following: .................................. 3
GERON 498 Work Experience in Gerontology (1 - 4)
And a minimum of 9 units from the following: ..................................... 9
ART 320 Design: Fundamentals (3)
IDES 300 Fundamentals of Interior Design (3)
IDES 330 Beginning Interior Design Studio (3)
IDES 334 Interior Environment and Space Planning (3)

1Prerequisite required for IDES 334
Gerontology: Health Care Certificate
Major Code: 011298C01
This certificate provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory course work emphasizing the health needs of an aging population. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing health services to senior adults.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
• evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices.
• analyze legal and ethical issues relating to aging and end-of-life decisions.
• demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
• evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
• analyze the role of nutrition in the aging process and its impact on health.
• evaluate care for the dying in different environments.
• assess common mental health issues of aging and evaluate interventions and resources.
• survey services for seniors available within a community and define eligibility requirements.
• apply knowledge of gerontology to real-life health care situations.

Career Opportunities
Entry-level positions with private industry, government and non-profit agencies providing health services to senior adults.

See losrios.edu/gainful-emp-info/gedt.php?major=011298C01 for Gainful Employment Disclosure.

Gerontology: Health Care Certificate 36 Units
Core Requirements .................................................................................................... 24
And a minimum of 3 units from the following: ......................................................... 3
GERON 498 Work Experience in Gerontology (1 - 4)
And a minimum of 9 units from the following: ........................................................ 9
AH 110 Medical Language for Health-Care Providers (3)
BIOL 102 Essentials of Human Anatomy and Physiology (4)
GERON 304 Ethical Issues and Client's Rights (3)
or HSER 310 Ethical Issues and Client's Rights (3)
NURSE 100 Nurse Assistant (6)
NURSE 101 Home Health Aide (2)
PSYC 390 Psychology of Death and Dying (3)
SLPA 300 Introduction to Communication Disorders (3)
1Prerequisite required for NURSE 101.

Gerontology: Recreation Certificate
Major Code: 011301C01
This certificate provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory recreation and physical education courses emphasizing the recreational needs of an aging population. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing recreational services to senior adults.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
• evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices.
• analyze legal and ethical issues relating to aging and end-of-life decisions.
• demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
• evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
• analyze the role of nutrition in the aging process and its impact on health.
• evaluate care for the dying in different environments.
• assess common mental health issues of aging and evaluate interventions and resources.
• survey services for seniors available within a community and define eligibility requirements.
• apply knowledge of gerontology to real-life recreation situations.

Career Opportunities
Entry-level positions with private industry, government and non-profit agencies providing recreational services to seniors.

See losrios.edu/gainful-emp-info/gedt.php?major=011301C01 for Gainful Employment Disclosure.

Gerontology: Recreation Certificate 36 Units
Core Requirements .................................................................................................... 24
And a minimum of 3 units from the following: ......................................................... 3
GERON 498 Work Experience in Gerontology (1 - 4)
And a minimum of 9 units from the following: ........................................................ 9
GERON 430 Activity Leader (6.5)
KINES 300 Introduction to Kinesiology (3)
KINES 405 Effects of Exercise on Special Populations (2)
KINES 408 Administration of Fitness Programs (2)
**Gerontology:**

**Social Policy/Advocacy Certificate**

Major Code, Social Policy: 011302C02  
Major Code, Advocacy: 011302C03

This certificate provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory human services, speech, management, and political science courses emphasizing the social policy and advocacy needs of an aging population. It focuses on preparation for entry-level positions with private industry, government, and non-profit agencies providing input to social policy and advocacy for senior adults.

**Student Learning Outcomes**

*Upon completion of this program, the student will be able to:*

- assess social and cultural attitudes on aging and how they impact social policy regarding the senior population.
- evaluate the biological, psychological and social aging changes in terms of optimal aging and the impact of lifestyle choices.
- analyze legal and ethical issues relating to aging and end-of-life decisions.
- demonstrate skill, ease, confidence, rapport, and listening skills when interacting with seniors at different cognitive levels.
- evaluate cognitive levels of seniors and utilize appropriate interactional activities and techniques for communication.
- analyze the role of nutrition in the aging process and its impact on health.
- evaluate care for the dying in different environments.
- assess common mental health issues of aging and evaluate interventions and resources.
- survey services for seniors available within a community and define eligibility requirements.
- apply knowledge of gerontology to real-life social policy and advocacy situations.

**Career Opportunities**

Entry-level positions with private industry, government and non-profit agencies providing input to social policy and advocacy for senior adults.

See losrios.edu/gainful-emp-info/gedt.php?major=011302C01 for Gainful Employment Disclosure.

**Gerontology: Advocacy Concentration Certificate**  
36 Units

- Core Requirements: 24 units
- And a minimum of 3 units from the following: GERON 498: Work Experience in Gerontology (1 - 4) 3 units
- And a minimum of 9 units from the following: GERON 304: Ethical Issues and Client’s Rights (3)  or HSER 310: Ethical Issues and Client’s Rights (3) or MGMT 362: Techniques of Management (3) or POLS 304: Introduction to Government: California (3) or SPEECH 301: Public Speaking (3)

**Gerontology: Social Policy Concentration Certificate**  
36 Units

- Core Requirements: 24 units
- And a minimum of 3 units from the following: GERON 498: Work Experience in Gerontology (1 - 4) 3 units
- And a minimum of 9 units from the following: GERON 304: Ethical Issues and Client’s Rights (3)  or HSER 310: Ethical Issues and Client’s Rights (3) or HSER 330: Issues of Diverse Populations (3)  or PSYC 365: Issues of Diverse Populations (3) or POLS 301: Introduction to Government: United States (3) or SPEECH 301: Public Speaking (3)

**DEPARTMENT CERTIFICATES**

**Activity Leader Certificate**

This certificate provides a comprehensive overview of the role and duties of an activity leader in a long-term care facility. The certificate meets State of California, Title 22 (Department of Social Service) requirements for activity leader certification.

**Student Learning Outcomes**

*Upon completion of this program, the student will be able to:*

- articulate the role and responsibilities of the activity leader in a long-term care facility.
- demonstrate effective communication skills in interviewing long-term care residents.
- analyze normal and disease process changes in hearing and speech.
- generate required documentation to comply with State and Federal regulations.
- create activities which meet physical and emotional needs of residents in long-term care.
- assess effects of institutionalization and possible impact on mental health and family relationships.
- identify types of dementia and appropriate communication and behavior management strategies.
- demonstrate effective problem solving, motivation, and communication skills involved in leadership of an activity program.
- compare and contrast community services available and their relevancy to an activity program.
- develop appropriate activities and monthly activity calendars to meet the needs of individual residents in long-term care.

**Career Opportunities**

Activity Leader in long-term care, assisted living, and retirement facilities.

**Requirements for Certificate**  
6.5 Units

- GERON 430: Activity Leader

**Dementia Care Certificate**

This certificate provides a comprehensive overview of dementias, behavior management, and communication. It expands the knowledge of students to enter the workforce where they will be dealing with seniors diagnosed with a form of dementia.

**Student Learning Outcomes**

*Upon completion of this program, the student will be able to:*

- differentiate between reversible and irreversible dementias.
- develop strategies for care for those with dementia.
- create a safe environment for those with dementia.
- evaluate a specific problem to decide if the problem is the patient’s or the caregiver’s.
- assess specific dementia behavior problems and select appropriate responses.
- demonstrate appropriate responses to dementia behaviors.
- analyze various types of dementia and their characteristics.
- identify communication strategies for enhanced understanding by the dementia patient.
- identify principles of behavior management.
- define caregiver issues.
- assess elements of communication that relate to Validation theory.
• analyze the theory behind Validation and describe the benefits of using Validation techniques
• demonstrate Validation techniques
• analyze dementia stages and select appropriate Validation techniques

**Career Opportunities**

Direct care of dementia patients. Supervision and inservice for dementia patients’ caregivers.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 204</td>
<td>Alzheimer’s Disease and Other Dementias</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 205</td>
<td>Validation: Theory and Practice</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 206</td>
<td>Dementia: Behavior Management</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 271</td>
<td>Dementia: Behaviors and Activity</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Elder Care Certificate**

This Certificate provides a comprehensive overview of the caregiving experience. It expands the knowledge of students to enter the workforce where they will be dealing with seniors and their caregivers.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

• design caregiving strategies based on the elders’ needs and available resources
• explain the concept of “Caring for the Caregiver”
• describe effective procedures for caring for elderly people with memory impairments
• analyze role reversal and sources of guilt within families
• define what constitutes elder abuse, including different types of abuse.
• assess causes of elder abuse.
• evaluate prevention approaches and resources to intervene before abuse occurs.
• identify elder abuse reporting steps and forms.
• evaluate the different causes of stress in caregiving situations
• analyze aspects of belief systems which enhance stress in caregiving.
• apply new talking and listening skills for reducing stress in self and others.
• assess elements of communication that relate to Validation theory
• analyze theory of Validation.
• demonstrate Validation techniques.
• analyze dementia stages and select appropriate Validation techniques.

**Career Opportunities**

Direct care of seniors from diverse backgrounds. Supervision and inservice for caregivers.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 205</td>
<td>Validation: Theory and Practice</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 207</td>
<td>Elder Abuse</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 208</td>
<td>Stress Management: New Approaches</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 209</td>
<td>Strategies for Caregivers: Effectively Caring for the Elderly in the Community</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Ethnicity and Aging Certificate**

This Certificate provides a comprehensive overview of how ethnicity affects the aging experience. It expands the knowledge of students to enter the workforce where they will be dealing with seniors from different cultures and ethnic groups.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

• synthesize and discuss the importance of cultural sensitivity as it relates to working with older people.
• evaluate and discuss differences among ethnic groups in life expectancy, mortality, mobility, family dynamics, work/retirements, mental health, views on death, and use of senior services.
• define and discuss ways of overcoming barriers to understanding and using senior services.
• evaluate the impact of culture and society on the aging process.
• compare and contrast values and beliefs of Asian, Hispanic, African-American cultures and the dominant Western culture.
• develop strategies for assessing and assisting aging Asians, Hispanics, and African-Americans and their families.
• describe historical events or institutions that have influenced African-American elderly.
• describe the economic, educational, and social groups found among the African-American elderly.
• discuss the health conditions found most frequently among the Asian, Hispanic, and African-American elderly.

**Career Opportunities**

Direct care of seniors from diverse backgrounds. Supervision and inservice for caregivers.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 270</td>
<td>Aging Experience in Asian Families</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 271</td>
<td>Aging Experience in Hispanic Families</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 272</td>
<td>Aging Experience in African-American Families</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 360</td>
<td>Ethnic Diversity and Aging</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Leadership in Assisted Living Communities Certificate**

This certificate provides a comprehensive overview of leadership, communication, and professionalism and ethics required for effective leadership and supervision in assisted living communities.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

• analyze three categories of leadership.
• compare and apply four facets of problem solving in regards to long-term care facilities.
• analyze the essential elements in team building and being a part of the team in long-term care facilities.
• identify and exhibit effective communication techniques.
• demonstrate effective motivational practices.
• differentiate between ethics and morals as related to working with seniors.
• evaluate professional conduct in long-term care facilities.
• demonstrate listening skills when working with the elderly.
• describe the parameters of confidentiality.

(continued on next page)
GERONTOLOGY

(Leadership in Assisted Living Communities Certificate continued)

- describe professional boundaries.
- analyze patterns of communication.
- demonstrate validation of feelings and viewpoints.
- evaluate adaptive behaviors in long-term care settings.
- compare different types of staff support systems.

Career Opportunities

Administrative positions in long-term care communities, such as staff coordinator, marketing specialist, resident coordinator, facility administrator.

Requirements for Certificate 1.5 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 201</td>
<td>Leadership and Team Building in Long-term Care Facilities</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 202</td>
<td>Professionalism and Ethics in Long-term Care</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 203</td>
<td>Communication for Supervision in Long-term Care</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Senior Fitness Certificate

This program prepares students for employment as a fitness leader for seniors and equips them with the knowledge and hands-on experience necessary to begin a career in the growing field of fitness for older adults.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recommend beneficial exercises for seniors and individuals with disabilities or medical conditions.
- behave responsibly at work, exhibiting initiative and self-management in situations where it is needed.
- create an individualized fitness plan to promote functional independence throughout the remainder of life.
- analyze how nutrition plays a part in overall health and aging.
- compare and contrast different self and group motivational techniques for staying active.
- identify and respond to life-threatening conditions (including breathing emergencies, cardiac emergencies, and severe bleeding).
- evaluate physical activities relative to risk factors.
- design and lead a group exercise activity, and provide modifications and variations to exercises when necessary.
- identify basic principles of body mechanics and posture.
- design an individualized exercise prescription program that includes muscular strength and muscular endurance development.
- explain the normal aging changes and analyze how lifestyle choices influence the aging process.
- demonstrate Validation techniques.

Career Opportunities

The senior fitness certificate program is ideal for anyone desiring an entry-level position as a fitness leader for seniors in a recreation center, senior center, senior community, assisted living facility, or another site for seniors.

Requirements for Certificate 16 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>FITNS 351</td>
<td>Exercise, Balance and Mobility</td>
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<tr>
<td>GERON 205</td>
<td>Validation: Theory and Practice</td>
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<tr>
<td>GERON 230</td>
<td>Motivating Older Adults to Stay Active</td>
<td>0.5</td>
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<tr>
<td>GERON 302</td>
<td>Psychology of Aging: Adult Development and Aging (3)</td>
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<tr>
<td>GERON 378</td>
<td>Body Mechanics and Safety</td>
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<tr>
<td>GERON 380</td>
<td>Nutrition and Aging</td>
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<td>HEED 310</td>
<td>Community CPR and Adult AED</td>
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<td>KINES 403</td>
<td>Fitness and Exercise Assessment</td>
<td>2</td>
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<tr>
<td>KINES 405</td>
<td>Effects of Exercise on Special Populations</td>
<td>2</td>
</tr>
<tr>
<td>KINES 406</td>
<td>Techniques of Strength Training Instruction</td>
<td>2</td>
</tr>
<tr>
<td>KINES 407</td>
<td>Techniques of Group Fitness Instruction</td>
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</tbody>
</table>

A minimum of 1 unit from the following: 1

WEXP 498 Work Experience in (Subject) (1 - 4)

Social Service Designee Certificate

The Social Services Designee certificate provides a comprehensive overview of the role and duties of a social services designee in a long-term care facility.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- articulate the role and responsibilities of the social services designee in a long-term care facility.
- analyze normal age changes and their impact on residents.
- incorporate resident rights and responsibilities into daily practice.
- apply Omnibus Budget Reconciliation Act (OBRA)/Title 22 (State of California Department of Social Services) regulations to work environment.
- evaluate legal and ethical issues relating to powers of attorney, long-term care financing, and end-of-life decisions.
- evaluate long-term care facility environments.
- interview and assess long-term care residents to assure needs are being met.

Career Opportunities

Social Services Designee in long-term care, assisted living, and retirement facilities.

Requirements for Certificate 4.5 Units

<table>
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<th>Course</th>
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<td>GERON 310</td>
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<tr>
<td>GERON 311</td>
<td>Social Services Designee: Legal Issues and End-of-Life Decisions</td>
<td>1</td>
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<tr>
<td>GERON 312</td>
<td>Social Services Designee: Fieldwork</td>
<td>1</td>
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</table>
GERON 201 Leadership and Team Building in Long-term Care Facilities .5 Units
Hours: 9 hours LEC
This course is an overview of the fundamentals of leadership, focusing on team building, communication, motivation, and problem solving in long-term care facilities. Pass/No Pass only.

GERON 202 Professionalism and Ethics in Long-term Care .5 Units
Hours: 9 hours LEC
This course explores professionalism and ethical conduct for those working with seniors in long-term care facilities. Topics include ethics, morals, professional conduct, confidentiality, boundaries, and listening skills. Pass/No Pass only.

GERON 203 Communication for Supervision in Long-term Care .5 Units
Hours: 9 hours LEC
This course explores effective communication skills for supervisors in long-term care facilities. Topics include emotions, validation of staff and residents, adaptive behavior, and staff support systems. Pass/No Pass only.

GERON 204 Alzheimer’s Disease and Other Dementias .5 Units
Hours: 9 hours LEC
This course is an introduction to dementia, including Alzheimer’s Disease. Topics include types of dementia, patient care, environmental issues, and strategies for understanding and responding to associated behaviors. Pass/No Pass only.

GERON 205 Validation: Theory and Practice .5 Units
Hours: 9 hours LEC
This course presents Validation theory as a communication technique used with individuals with differing levels of cognitive ability. Criteria for evaluating stages of dementia and the selection of appropriate techniques are covered. Pass/No Pass only.

GERON 206 Dementia: Behavior Management .5 Units
Hours: 9 hours LEC
This course explores the many facets of behavior management as they apply to those diagnosed with a form of dementia. Topics include defining the problem, determining whose problem it is, problem-solving principles, environmental triggers, caregiver response, and techniques (such as timing, validation, noise regulation) for specific problem behaviors. Pass/No Pass only.

GERON 207 Elder Abuse .5 Units
Hours: 9 hours LEC
This course is an overview of elder abuse. It focuses on occurrence, prevention strategies, and resources to prevent elder abuse. Pass/No Pass only.

GERON 208 Stress Management: New Approaches .5 Units
Hours: 9 hours LEC
This course examines stress from a communication perspective, focusing specifically on caregivers. The concept of high-risk messages is introduced focusing on how stress reactions affect behavior and morale in residential care facilities and other systems of care for the elderly. Emphasis is on how a message is translated and how this translation affects stress, overload, and spill-over effects. Stress management skills are demonstrated. Pass/No Pass only.

GERON 209 Strategies for Caregivers: Effectively Caring for the Elderly in the Community .5 Units
Hours: 9 hours LEC
This course covers strategies for providing effective care for the elderly, including how it is complicated by dementia, role reversal, and guilt. Common sense strategies for caregiving that not only meet the needs of the elderly but also lessen the caregiving burden are explained. Pass/No Pass only.

GERON 210 Aging Experience in Asian Families .5 Units
Hours: 9 hours LEC
This course examines the aging experience characteristic to Asian families. The impact of culture, societal expectations and their effect on family roles, values and beliefs and how these affect caregiving on that aging experience are discussed. Focus is on strategies for dealing with stress and social support services for Asian families. Pass/No Pass only.

GERON 211 Aging Experience in Hispanic Families .5 Units
Hours: 9 hours LEC
This course examines the aging experience characteristic to Hispanics and the impact of culture, societal expectations, family roles, values, beliefs, and caregiving on that aging experience. Focus is on social support systems and strategies for assisting aging Hispanics and their families. Pass/No Pass only.

GERON 212 Aging Experience in African-American Families .5 Units
Hours: 9 hours LEC
This course examines the economic, social, and health status of elderly African-Americans. It focuses on their unique relationship to the dominant American culture, their vulnerability to specific diseases, and their history with the health care system. It also covers family structures in the African-American community and their implications for family relationships and caregiving. Pass/No Pass only.

GERON 213 Aging Experience in Native American Families .5 Units
Hours: 9 hours LEC
This course examines the economic, social, and health status of elderly Native Americans. It focuses on their unique relationship to the dominant American culture, being members of sovereign nations, and tribal and governmental institutions that impact their lives, family relationships, and caregiving. Pass/No Pass only.

GERON 220 RCFE Administrator Training 4.5 Units
Hours: 81 hours LEC
This course meets the educational requirements necessary to take for state licensure as an administrator of a residential care facility for the elderly (RCFE). Topics include philosophy, mission, and operations of a RCFE; regulations, rights and responsibilities of licensees; fingerprinting and criminal record clearances; psychosocial needs of residents; physical plant requirements; resident assessment, retention, and eviction; resident records and services; food service regulations; admission agreement; special diets; medications; abuse reporting; residents’ rights; and community resources. Pass/No Pass only.

GERON 230 Motivating Older Adults to Stay Active .5 Units
Hours: 9 hours LEC
This course focuses on how to motivate healthy older adults to stay independent, active, and mobile. Topics include wellness, aerobic fitness, nutrition, stress, self- and group-motivation techniques, and cognition as they affect seniors. Credit/No Credit only.
GERON 271 Dementia: Behaviors and Activity .5 Units
Hours: 9 hours LEC
This course is an overview of dementia and memory loss. Topics focus on types, characteristics, communications, behavior management, and caregiving of dementia patients. Pass/No Pass only.

GERON 280 Home Adaptations for Safety and Independence .5 Units
Hours: 9 hours LEC
This course explores adaptations to the home environment to promote safety and independence for those with disabilities. Topics include assessment, durable equipment, home modifications and resources. Pass/No Pass only.

GERON 300 Sociology of Aging 3 Units
Same As: SOC 335
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.
General Education: AAAS Area III(b); CSU Area E1
Course Transferable to UCI/CSU
Hours: 54 hours LEC
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 SOC 335.

GERON 302 Psychology of Aging: Adult Development and Aging 3 Units
Same As: PSYC 374
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESIW 340
General Education: AAAS Area V(b); CSU Area D; CSU Area E1; IGETC Area 4
Course Transferable to UCI/CSU
Hours: 54 hours LEC
This course covers the physical, psychological, and social aspects of the aging process including the interactions between the elderly and the rest of society. Topics include an analysis of stereotypes, social bonds, environmental factors, sexuality, physical health, mental health, death, and bereavement. This course is not open to students who have completed PSYC 374.

GERON 304 Ethical Issues and Client’s Rights 3 Units
Same As: HSER 310
Corequisite: HSER 300
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESIW 320 with a grade of "C" or better; OR placement through assessment process.
Course Transferable to CSU
Hours: 54 hours LEC
This course is a comprehensive exploration of the basic ethical issues involving human services delivery. Topics include professional ethics, confidentiality, counselor and clients’ rights, and other areas involving ethical controversies. This course is not open to students who have completed HSER 310.

GERON 310 Social Service Designee: Role and Responsibility 2.5 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESIW 340.
Course Transferable to CSU
Hours: 45 hours LEC
This course covers the role of the Social Services Designee in long-term care. The focus is on family, patient adjustment, and dementia. It also covers documentation for the Social Services Designee working in long-term care.

GERON 311 Social Services Designee: Legal Issues and End-of-Life Decisions 1 Unit
Advisory: ENGWR 102 and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESIW 320 with a grade of "C" or better.
Course Transferable to CSU
Hours: 18 hours LEC
This course covers legal issues involved with long-term care. The focus is on probate, conservatorships, wills, trusts, power of attorney for financial management, and the California Advanced Health Care Directives, and right-to-die issues.

GERON 312 Social Services Designee: Fieldwork 1 Unit
Prerequisite: GERON 310 and 311 with grades of "C" or better
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESIW 320 with a grade of "C" or better.
Course Transferable to CSU
Hours: 18 hours LEC
This course provides an opportunity to explore the social services designee role in a long-term care facility and to apply knowledge gained to long-term care experience in the area of social services.

GERON 330 Communicating with and Validating Older Adults 3 Units
Same As: PSYC 378
Prerequisite: GERON 302 or PSYC 374 with a grade of "C" or better
Advisory: ENGWR 102 and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESIW 320 with a grade of "C" or better.
Enrollment Limitation: Current tuberculosis clearance
General Education: AAAS Area III(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the basic theory, techniques, and experiences for communication with, validation of, and stimulation of the elderly at different cognitive levels in long-term care. After the first class session, this course is held off campus in a long-term care setting. Supervision by a professor in a long-term care setting is required. This course is not open to students who have completed PSYC 378.

GERON 334 Reminiscence Therapy 3 Units
Same As: PSYC 379
Prerequisite: GERON 302 or PSYC 374 with a grade of "C" or better
Advisory: ENGWR 102 and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESIW 320 with a grade of "C" or better.
Enrollment Limitation: Current tuberculosis clearance
General Education: AAAS Area III(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the basic theory and techniques of reminiscence therapy and provides experience in planning, facilitating, and evaluating reminiscence groups with the elderly in an institutional setting. After the first class session, this course is held off campus in a long-term care setting. This course is not open to students who have completed PSYC 379.
GERON 335 Wellness for Older Adults 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
This course explores positive lifestyle choices throughout life which have a positive effect on health and well-being. Topics include exercise, nutrition, stress management, chronic disease, and adaptations for disability.

GERON 340 Nutrition for Healthy Aging 3 Units
Same As: NUTRI 324
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on the nutrition of older adults. Topics include the effects of nutrition on health and well-being and the 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, and cancer and nutrition. This course is not open to students who have completed NUTRI 324.

GERON 360 Ethnic Diversity and Aging .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of ethnicity and culture as factors in the aging process. It focuses on values, beliefs, and culture, and their impact on the design and delivery of senior services with an emphasis on health and residential care services. Pass/No Pass only.

GERON 362 Biology of Aging .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of the biology of aging and health of the older adult. The focus is on chronic and acute illnesses, normal aging changes, sexuality, nutrition, and strategies for good health. Pass/No Pass only.

GERON 366 Coping with Death and Related Bereavement .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course explores our societal/cultural and personal views of death, dying, and bereavement. Topics include the processes of dying and grieving from the perspectives of the patient, family, friends, and caregivers; the dynamics of loss, grief, and bereavement; and the needs of the bereaved. Pass/No Pass only.

GERON 368 Mental Health and Aging .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of mental health as it is impacted by the aging process. Emphasis is on correlates of mental health, incidence of mental illness, depression, dementia, substance abuse, intervention, and mental health resources for seniors. Pass/No Pass only.

GERON 378 Body Mechanics and Safety .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of body mechanics, emphasizing a problem-solving approach. The focus is on basic methods and techniques of positioning, transfer, and ambulation, as well as personal safety, adaptive exercise, and assistive devices. Pass/No Pass only.

GERON 380 Nutrition and Aging .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course concentrates on the practical aspects of nutrition and aging. Cost-effective directions for meeting nutritional needs are included. Information regarding environmental factors implicated in the aging process is discussed. Pass/No Pass only.

GERON 430 Activity Leader 6.5 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 117 hours LEC
This course covers the roles and responsibilities of an Activity Leader in long-term care facilities. Topics include interviewing and counseling techniques, hearing and speech changes, social and psychological forces of aging, effective leadership skills, dementia behaviors, etiology of illness, community agencies and resources, needs-based programming, documentation at state and federal levels, and creating an activity program.

GERON 490 Aging Policy and Practice 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to gerontology with a cooperating site supervisor. Students are advised to consult with the Gerontology Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.

GERON 1065 Movement Matters .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course introduces the importance of movement for seniors and provides examples adapted to specific chronic conditions. Topics include movement related to Parkinson’s, multiple sclerosis, osteoarthritis, osteoporosis, and Alzheimer’s and other dementias. Credit/No Credit only.
The college program in health education is designed to provide students the essential information for the evaluation and maintenance of individual health.

**HEALTH EDUCATION**

HEED 300 Health Science 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340

General Education: AA/AS Area III(b); CSU Area E1

Course Transferable to UC/CSU

Hours: 54 hours LEC

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 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340

General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B

Course Transferable to UC/CSU

Hours: 54 hours LEC

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 Community CPR and Adult AED 1 Unit

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340

Course Transferable to UC/CSU

Hours: 18 hours LEC

This course provides knowledge and skills for emergency life-saving techniques involving infants, children, and adults. Respiratory and cardiovascular distress, non-breathing, unconsciousness, choking, and cardiac arrest are addressed. The infant and child and the adult cardiopulmonary resuscitation (CPR)/Automatic External Defibrillator (AED) certification examinations are included.

HEED 311 CPR and Pediatric First Aid 1.5 Units

Same As: ECE 414

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.

Course Transferable to UC/CSU

Hours: 27 hours LEC

This course meets the requirements for American Red Cross certification in California Child Care Health & Safety Training which includes adult, child, and infant CPR and pediatric first aid. It also includes legal considerations, avoiding disease transmission, responding to sudden illnesses and injuries, and recognition of common childhood diseases. This course is not open to students who have completed ECE 414.

HEED 315 First Aid .5 Units

Advisory: ENGRD 116 or ESLR 320; or placement through the assessment process.

Course Transferable to CSU

Hours: 9 hours LEC

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 Cardio Pulmonary Resuscitation (CPR)/Automated External Defibrillators (AED) for the Professional R .5 Units

Prerequisite: HEED 310 with a grade of “C” or better, or current American Red Cross or American Heart Association Community or Professional Rescuer CPR certification

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.

Course Transferable to CSU

Hours: 9 hours LEC

This course meets the requirements for Red Cross certification as a professional rescuer. It includes legal considerations, avoiding disease transmission, controlling severe bleeding, and moving victims, as well as professional rescuer situation practice sessions.

HEED 495 Independent Studies in Health Education 1-3 Units

Prerequisite: None

Course Transferable to CSU

Hours: 54-162 hours LAB

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.
Healthcare Interpreting Certificate

Major Code: 011538C01

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.

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 Opportunities

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011538C01 for Gainful Employment Disclosure.

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.

Requirements for Certificate 22.5-28.5 Units

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<th>22.5-28.5 Units</th>
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### Healthcare Interpreting

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<td>Healthcare Interpreting Introduction</td>
<td>.5</td>
<td>Course Transferable to CSU. Hours: 9 hours LEC. 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.</td>
</tr>
<tr>
<td>HCI 310</td>
<td>Healthcare Interpreting I</td>
<td>3</td>
<td>Prerequisite: HCI 300 with a grade of &quot;C&quot; or better. Corequisite: AH 110 and BIOL 102; or BIOL 115 &amp; 116 or BIOL 430 &amp; 431. Advisory: SPEECH 301. Course Transferable to CSU. Hours: 48 hours LEC; 18 hours LAB. 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 in the art of interpretation.</td>
</tr>
<tr>
<td>HCI 320</td>
<td>Healthcare Interpreting II</td>
<td>3</td>
<td>Prerequisite: HCI 310 with a grade of &quot;C&quot; or better. Advisory: SPEECH 301. Course Transferable to CSU. Hours: 48 hours LEC; 18 hours LAB. 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 musculoskeletal, respiratory, immunologic, and obstetric specialties. It focuses on insight into language and cultural nuances for specific communities necessary in the art of interpretation.</td>
</tr>
<tr>
<td>HCI 330</td>
<td>Healthcare Interpreting III</td>
<td>3</td>
<td>Prerequisite: HCI 320 with a grade of &quot;C&quot; or better. Advisory: SPEECH 301. Course Transferable to CSU. Hours: 48 hours LEC; 18 hours LAB. This course is designed for bilingual individuals preparing to become an integral member of the health care team, bridging the language and cultural gap between clients and providers. It further develops interpreting skills covered in HCI 320. Topics include specialized health care service areas, such as genetics, pediatrics, and endocrinology. It also emphasizes the development of cultural competency in the community and workplace.</td>
</tr>
<tr>
<td>HCI 340</td>
<td>Healthcare Interpreting IV</td>
<td>3</td>
<td>Prerequisite: HCI 330 with a grade of &quot;C&quot; or better. Advisory: SPEECH 301. Course Transferable to CSU. Hours: 48 hours LEC; 18 hours LAB. This course is designed for bilingual individuals completing their preparation to become an integral member 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 health care service areas such as men's and women's health, mental health, neonatal intensive care, and death and dying. The course also focuses on careers in interpreting and career preparation.</td>
</tr>
<tr>
<td>HCI 350</td>
<td>Healthcare Interpreting Fieldwork</td>
<td>3</td>
<td>Prerequisite: HCI 330 with a grade of &quot;C&quot; or better. Advisory: SPEECH 301. Course Transferable to CSU. Hours: 18 hours LEC; 108 hours LAB. 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 50 - 60 hours which may include directed practice in precepted clinical settings and fieldwork or workplace experience.</td>
</tr>
</tbody>
</table>
The study of history equips the student with cultural literacy and promotes critical thinking and well-informed perspectives on today's world.

**History A.A. for Transfer Degree**

**Major Code, CSU GE: 010746A01**

**Major Code, IGETC: 010746A02**

The Associate in Arts degree in History for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of history. Additionally, this degree exposes students to the core principles and practices of the study of history in order to build a foundation for their future personal, academic, and professional paths.

The degree is designed to facilitate students’ successful transfer to certain CSU four-year programs that prepare them for advanced study in graduate and professional programs, as well as a variety of careers including teaching, archival research, public history, government service, journalism, business, and the law. History graduates are well suited to many fields of endeavor that require effective reading, writing, and critical thinking skills, as well historically informed perspectives on today’s global societies.

The Associate in Arts degree in History for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

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

**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 Opportunities**

This 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.

<table>
<thead>
<tr>
<th>Requirements for Degree</th>
<th>18 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 310</td>
<td>History of the United States (3)</td>
</tr>
<tr>
<td>or HIST 483</td>
<td>History of the United States - Honors (3)</td>
</tr>
<tr>
<td>HIST 311</td>
<td>History of the United States (3)</td>
</tr>
<tr>
<td>or HIST 484</td>
<td>History of the United States - Honors (3)</td>
</tr>
<tr>
<td>HIST 300</td>
<td>History of Western Civilization (3)</td>
</tr>
<tr>
<td>or HIST 480</td>
<td>History of Western Civilization - Honors (3)</td>
</tr>
<tr>
<td>HIST 307</td>
<td>History of World Civilizations to 1500 (3)</td>
</tr>
<tr>
<td>HIST 302</td>
<td>History of Western Civilization (3)</td>
</tr>
<tr>
<td>or HIST 481</td>
<td>History of Western Civilization - Honors (3)</td>
</tr>
<tr>
<td>or HIST 308</td>
<td>History of World Civilizations, 1500 to Present (3)</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
<td>3</td>
</tr>
<tr>
<td>HIST 305</td>
<td>Women in Western Civilization (3)</td>
</tr>
<tr>
<td>HIST 320</td>
<td>History of the United States: African-American Emphasis (3)</td>
</tr>
<tr>
<td>HIST 321</td>
<td>History of the United States: African-American Emphasis (3)</td>
</tr>
<tr>
<td>HIST 325</td>
<td>History of Asian/Pacific Americans (3)</td>
</tr>
<tr>
<td>HIST 327</td>
<td>History of the Chicano/Mexican American (3)</td>
</tr>
<tr>
<td>HIST 330</td>
<td>Women in American History (3)</td>
</tr>
<tr>
<td>HIST 364</td>
<td>Asian Civilization (3)</td>
</tr>
<tr>
<td>HIST 365</td>
<td>Asian Civilization (3)</td>
</tr>
<tr>
<td>HIST 373</td>
<td>History of Mexico (3)</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
<td>3</td>
</tr>
<tr>
<td>HIST 305</td>
<td>Women in Western Civilization (3)</td>
</tr>
<tr>
<td>HIST 307</td>
<td>History of World Civilizations to 1500 (3)</td>
</tr>
<tr>
<td>HIST 308</td>
<td>History of World Civilizations, 1500 to Present (3)</td>
</tr>
<tr>
<td>HIST 318</td>
<td>American Intellectual and Cultural History (3)</td>
</tr>
<tr>
<td>HIST 320</td>
<td>History of the United States: African-American Emphasis (3)</td>
</tr>
<tr>
<td>HIST 321</td>
<td>History of the United States: African-American Emphasis (3)</td>
</tr>
<tr>
<td>HIST 323</td>
<td>History of the United States: The American Indian Experience (3)</td>
</tr>
<tr>
<td>HIST 325</td>
<td>History of Asian/Pacific Americans (3)</td>
</tr>
<tr>
<td>HIST 327</td>
<td>History of the Chicano/Mexican American (3)</td>
</tr>
<tr>
<td>HIST 330</td>
<td>Women in American History (3)</td>
</tr>
<tr>
<td>HIST 340</td>
<td>History of California through 1879 (3)</td>
</tr>
<tr>
<td>HIST 341</td>
<td>History of California: 1879 to Present (3)</td>
</tr>
<tr>
<td>HIST 364</td>
<td>Asian Civilization (3)</td>
</tr>
<tr>
<td>HIST 365</td>
<td>Asian Civilization (3)</td>
</tr>
<tr>
<td>HIST 367</td>
<td>History of Russia (3)</td>
</tr>
<tr>
<td>HIST 373</td>
<td>History of Mexico (3)</td>
</tr>
<tr>
<td>HIST 374</td>
<td>History of Latin America to 1830 (3)</td>
</tr>
<tr>
<td>HIST 375</td>
<td>The History of Modern Latin America and Caribbean (3)</td>
</tr>
</tbody>
</table>

*Student may choose any course from this last list if not previously used.

**Associate in Arts for Transfer Degree Requirements:**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Advisory</th>
<th>General Education</th>
<th>Course Transferable to UC/CSU</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 300</td>
<td>History of Western Civilization</td>
<td>3</td>
<td>Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.</td>
<td>AA/AS Area V(b); CSU Area C2; IGETC Area 3B; IGETC Area 4F</td>
<td>UC/CSU</td>
<td>54</td>
</tr>
<tr>
<td>HIST 302</td>
<td>History of Western Civilization</td>
<td>3</td>
<td>Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.</td>
<td>AA/AS Area V(b); CSU Area C2; IGETC Area 3B; IGETC Area 4F</td>
<td>UC/CSU</td>
<td>54</td>
</tr>
<tr>
<td>HIST 305</td>
<td>Women in Western Civilization</td>
<td>3</td>
<td>Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.</td>
<td>AA/AS Area V(b); CSU Area C2; IGETC Area 3B; IGETC Area 4F</td>
<td>UC/CSU</td>
<td>54</td>
</tr>
<tr>
<td>HIST 307</td>
<td>History of World Civilizations to 1500</td>
<td>3</td>
<td>Eligible for ENGRD 102 and ENGRD 116 with a grade of &quot;C&quot; or better; OR ESLR 320 and ESLW 320 with a grade of &quot;C&quot; or better.</td>
<td>AA/AS Area V(b); CSU Area C2; IGETC Area 3B; IGETC Area 4F</td>
<td>UC/CSU</td>
<td>54</td>
</tr>
<tr>
<td>HIST 308</td>
<td>History of World Civilizations, 1500 to Present</td>
<td>3</td>
<td>Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.</td>
<td>AA/AS Area V(b); CSU Area C2; IGETC Area 3B; IGETC Area 4F</td>
<td>UC/CSU</td>
<td>54</td>
</tr>
<tr>
<td>HIST 310</td>
<td>History of the United States</td>
<td>3</td>
<td>Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.</td>
<td>CSU Area C2; IGETC Area 4F</td>
<td>UC/CSU</td>
<td>54</td>
</tr>
<tr>
<td>HIST 311</td>
<td>History of the United States</td>
<td>3</td>
<td>Eligible for ENGRD 102 and ENGRD 116 with a grade of &quot;C&quot; or better; OR ESLR 320 and ESLW 320 with a grade of &quot;C&quot; or better.</td>
<td>CSU Area C2; IGETC Area 4F</td>
<td>UC/CSU</td>
<td>54</td>
</tr>
</tbody>
</table>

This course surveys world civilizations from antiquity 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 shaped major world civilizations. (C-ID HIST 150)
HIST 318  American Intellectual and Cultural History  3 Units
Advisory: ENGRD 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320
General Education: AAAS Area V(a); CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a 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  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 and ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area V(a); AAAS Area VI; CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers U.S. history from the founding of Jamestown in 1607 through the Civil War. This course begins with a brief overview of the Black American's African heritage. It continues with the role played by African-Americans, their relationships to other groups, and their specific contributions in the growth and development of the nation.

HIST 321  History of the United States: African-American Emphasis  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area V(a); AAAS Area VI; CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers U.S. history from 1865 to present, including coverage of state and local government with an emphasis on the role of African Americans, their relationships to other groups, and their specific contributions in the growth and development of the nation.

HIST 323  History of the United States: The American Indian Experience  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area V(a); AAAS Area VI; CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
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  3 Units
Advisory: ENGRD 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
General Education: AAAS Area V(a); AAAS Area VI; CSU Area D3; CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is a survey lecture course that examines the history of Asian immigrants and Asian 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, Hispanic, and Native descent.

HIST 327  History of the Chicano/Mexican American  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area V(a); AAAS Area VI (effective Summer 2016); CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a study of the relationship between the development of American 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. Emphasis is placed on socio-cultural contributions of Mexican Americans to American institutions. Field trips may be required.

HIST 330  Women in American History  3 Units
Advisory: ENGRW 102 and ENGRD 116 with a “C” or better; OR ESLR 320 AND ESLW 320, with a grade of “C” or better
General Education: AAAS Area V(a); AAAS Area VI; CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. The diverse roles and contributions of European American, Native American, African American, Mexican American, and Asian American women are emphasized throughout the course.

HIST 340  History of California through 1879  3 Units
Advisory: ENGRW 102 and ENGRD 116 with a “C” or better; OR ESLR 320 and ESLW 320, with a grade of “C” or better
General Education: AAAS Area V(b); CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of the early history of California, starting with the original people of California, the discovery and settlement of California by the Spanish, the Mexican period, American conquest and occupation, the Gold Rush, and ending with events through the Constitution of 1879.
HIST 341  History of California: 1879 to Present  3 Units
Advisory: ENGWR 102 and ENGRD 116 with a “C” or better; OR ESLR 320 and ESLW 320, with a grade of “C” or better.
General Education: AA/AAS Area V(b); CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of California history from 1879 to the present. Topics include the economic, social, cultural, and political developments, including 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  .5-3 Units
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.
General Education: AA/AAS Area V(b); CSU Area D6
Course Transferable to CSU
Hours: 9-54 hours LEC
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 344  Asian Civilization  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AAS Area V(b); AA/AAS Area I; CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 345  Asian Civilization  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AAS Area V(b); AA/AAS Area I; CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of the history of Asian Civilizations from the 15th century to the present, with focus on social, political, economic, and cultural developments. Issues include Latin America and 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  4 Units
General Education: AA/AS Area I; AA/AS Area III(b); CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 72 hours LEC
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  3 Units
Prerequisite: Placement into ENGWR 480 through the assessment process.
General Education: AA/AS Area V(b); AA/AS Area I; CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (Part of C-ID HIST 170)

HIST 481   History of Western Civilization - Honors  3 Units
Prerequisite: Placement into ENGWR 480 through the assessment process.
General Education: AA/AS Area V(b); AA/AS Area I; CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of western civilization from the Colonial through the American Civil War eras. This seminar-style honors course utilizes class discussion based on the reading of selected monographs and primary documents. Particular emphasis is placed on the interrelationships of the developing American political, economic, social, and cultural institutions. Critical thinking skills are emphasized in responding to these issues. This course is not open to students who have completed HIST 310. (C-ID HIST 130)

HIST 483   History of the United States - Honors  3 Units
Prerequisite: Placement into ENGWR 480 through the assessment process.
General Education: AA/AS Area V(a); CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an in-depth study of American history from the Colonial through the American Civil War eras. This seminar-style honors course utilizes class discussion based on the reading of selected monographs and primary documents. Particular emphasis is placed on the interrelationships of the developing American political, economic, social, and cultural institutions. Critical thinking skills are emphasized in responding to these issues. This course is not open to students who have completed HIST 311. (C-ID HIST 140)

HIST 484   History of the United States - Honors  3 Units
Prerequisite: Placement into ENGWR 480 through the assessment process.
General Education: AA/AS Area V(a); CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the study of American history from 1865 to the present day. This seminar-style honors course utilizes class discussion based on the reading of selected monographs and primary documents. Particular emphasis will be placed on the interrelationships of American political, economic, social, and cultural developments. Critical thinking skills are emphasized in responding to these issues. This course is not open to students who have completed HIST 311. (C-ID HIST 140)

HIST 495   Independent Studies in History  1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
DEPARTMENT CERTIFICATE

Homeland Security

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.

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.

Requirements for Certificate 9 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLS 300</td>
<td>Introduction to Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>HLS 302</td>
<td>Intelligence Analysis and Security Management</td>
<td>3</td>
</tr>
<tr>
<td>HLS 304</td>
<td>Transportation and Border Security</td>
<td>3</td>
</tr>
</tbody>
</table>

Homeland Security

HLS 300  Introduction to Homeland Security  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC

This course introduces the vocabulary and various components of homeland security. Emphasis is placed on the agencies associated with homeland security and their interrelated duties and relationships. Critical threats confronting homeland security, historical events impacting homeland security, and related state, national, and international laws are examined.

HLS 302  Intelligence Analysis and Security Management  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC

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. Emphasis is placed on ethical principles and how the intelligence community operates in support of federal, state, and local homeland security agencies.

HLS 304  Transportation and Border Security  3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC

This course provides an overview of modern border and transportation security challenges, as well as presenting 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. Emphasis is placed on technological solutions employed to enhance security of borders and transportation systems.
**Honors Transfer Certificate**  
**Major Code:** 011133C01

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. A total of 12 units of degree-applicable coursework must be earned at ARC to meet residency requirements. Most courses in the certificate fulfill requirements for the ARC A.A., A.S., A.A.-T., A.S.-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 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.

**Student Learning Outcomes**

Upon completion of this certificate 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

### Requirements for Certificate  
**15 Units**

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ANTH 480</td>
<td>Honors Biological Anthropology (3)</td>
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<td>ANTH 481</td>
<td>Honors Cultural Anthropology (3)</td>
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<tr>
<td>ASTR 481</td>
<td>Honors Astronomy: Stars, Galaxies, and Cosmology (4)</td>
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<tr>
<td>BIOL 482</td>
<td>Honors Marine Biology (4)</td>
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<tr>
<td>CISP 480</td>
<td>Honors Introduction to Structured Programming (5)</td>
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<tr>
<td>ENGW 480</td>
<td>Honors College Composition (3)</td>
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<tr>
<td>ENGW 481</td>
<td>Honors College Composition and Literature (3)</td>
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<tr>
<td>ENGW 482</td>
<td>Honors Advanced Composition and Critical Thinking (3)</td>
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<tr>
<td>HIST 480</td>
<td>History of Western Civilization - Honors (3)</td>
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<td>HIST 481</td>
<td>History of Western Civilization - Honors (3)</td>
</tr>
<tr>
<td>HIST 483</td>
<td>History of the United States - Honors (3)</td>
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<tr>
<td>HIST 484</td>
<td>History of the United States - Honors (3)</td>
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<tr>
<td>NUTRI 481</td>
<td>Honors - Cultural Foods of the World (3)</td>
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<tr>
<td>POLS 480</td>
<td>Introduction to International Relations - Honors (3)</td>
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<td>POLS 481</td>
<td>Introduction to Government: United States - Honors (3)</td>
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<td>PSYC 480</td>
<td>Honors General Principles (3)</td>
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<td>PSYC 481</td>
<td>Honors Abnormal Behavior (3)</td>
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<tr>
<td>SOC 480</td>
<td>Introductory Sociology - Honors (3)</td>
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</table>

For course information and a description of each Honors course offered at American River College, please refer to the individual sections of the catalog, Anthropology, Astronomy, Biology, Computer Information Science, English-Writing, History, Nutrition, Political Science, Psychology, or Sociology or visit the campus website at [arc.losrios.edu](http://arc.losrios.edu)
DEGREES AND CERTIFICATES

Horticulture Degree
Major Code: 011146A01
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. The focus of the program is to prepare horticulturists 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.

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 Opportunities
Horticulturists 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.

Requirements for Degree  38-41 Units

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>HORT 100</td>
<td>Integrated Pest Management in the Landscape</td>
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<tr>
<td>HORT 143</td>
<td>Horticulture Skills Development</td>
<td>1</td>
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<tr>
<td>HORT 298</td>
<td>Work Experience in Horticulture</td>
<td>1-4</td>
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<td>HORT 300</td>
<td>Introduction to Horticulture</td>
<td>3</td>
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<tr>
<td>HORT 302</td>
<td>Soils, Soil Management, and Plant Nutrition</td>
<td>3</td>
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<tr>
<td>HORT 305</td>
<td>Plant Identification-Fall Selections</td>
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<td>HORT 306</td>
<td>Plant Identification-Spring Selections</td>
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<td>HORT 312</td>
<td>Plant Propagation</td>
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<td>HORT 316</td>
<td>Plant Production, Facilities and Sales</td>
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<td>HORT 320</td>
<td>Sustainable Landscape Construction</td>
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<tr>
<td>HORT 322</td>
<td>Landscape and Irrigation Graphics and Design</td>
<td>3</td>
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<td>HORT 324</td>
<td>Sustainable Landscape Maintenance</td>
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<tr>
<td>HORT 329</td>
<td>Landscape CAD Design</td>
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A minimum of 3 units from the following:

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses (1)</td>
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</tr>
<tr>
<td>BUS 216</td>
<td>Essential Records for the Small Business (1)</td>
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</tr>
<tr>
<td>BUS 218</td>
<td>Management Skills for the Small Business (1)</td>
<td></td>
</tr>
<tr>
<td>HORT 105</td>
<td>Pest Control Licensing For Certification (2)</td>
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</tr>
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<td>HORT 200</td>
<td>Introduction to Retail Floristry (2)</td>
<td></td>
</tr>
<tr>
<td>HORT 308</td>
<td>Viticulture-Vineyard Establishment (1)</td>
<td></td>
</tr>
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<td>HORT 309</td>
<td>Viticulture - Sustainable Vineyard Management (1)</td>
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</tr>
<tr>
<td>HORT 321</td>
<td>Sustainable and Ecological Landscape Practices (3)</td>
<td></td>
</tr>
<tr>
<td>HORT 326</td>
<td>Landscape Design (3)</td>
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<td>HORT 327</td>
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<td>HORT 330</td>
<td>Small Gas Engines, Outdoor Power Equipment (4)</td>
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<tr>
<td>NATR 330</td>
<td>Native Trees and Shrubs of California (4)</td>
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<tr>
<td>NATR 332</td>
<td>Wildflowers of California (3)</td>
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</tbody>
</table>

Associate Degree Requirements: The Horticulture Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
**Horticulture Certificate**  
**Major Code: 011146C01**

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. The focus of the program is to prepare horticulturists 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.

**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 Opportunities**

Horticulturists 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.


**Requirements for Certificate**  
37 Units

<table>
<thead>
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<tbody>
<tr>
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<td>Plant Identification-Fall Selections</td>
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<td>HORT 306</td>
<td>Plant Identification-Spring Selections</td>
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<td>HORT 312</td>
<td>Plant Propagation</td>
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<tr>
<td>HORT 322</td>
<td>Landscape and Irrigation Graphics and Design</td>
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A minimum of 3 units from the following:

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</thead>
<tbody>
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<td>HORT 324</td>
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</tr>
<tr>
<td>HORT 329</td>
<td>Landscape CAD Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Requirements for Degree and Certificate  
34 Units

**Landscape Design Technology**  
**Degree and Certificate**  
**Major Code, degree: 011145A01**  
**Major Code, certificate: 011152C01**

This program 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.

**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 Opportunities**

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011152C01 for Gainful Employment Disclosure.

**Requirements for Degree and Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses</td>
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<tr>
<td>HORT 308</td>
<td>Viticulture-Vineyard Establishment</td>
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<td>Viticulture - Sustainable Vineyard Management</td>
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<td>Sustainable and Ecological Practices</td>
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<td>Landscape Design</td>
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<tr>
<td>HORT 327</td>
<td>Advanced Landscape Design</td>
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</tr>
<tr>
<td>HORT 330</td>
<td>Small Gas Engines, Outdoor Power Equipment</td>
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<tr>
<td>NATR 330</td>
<td>Native trees and Shrubs of California</td>
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**Requirements for Certificate**

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<tr>
<td>HORT 110</td>
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<td>HORT 305</td>
<td>Plant Identification-Fall Selections</td>
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<td>or HORT 306</td>
<td>Plant Identification-Spring Selections</td>
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<td>HORT 329</td>
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<td>DESIGN 100</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
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<td>DESIGN 302</td>
<td>Technical Documentation with CADD</td>
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<td>DESIGN 300</td>
<td>Introduction to Design Resources</td>
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<tr>
<td>DESIGN 350</td>
<td>Surveying and Land Planning</td>
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</table>
Associate Degree Requirements: The Landscape Design Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

DEPARTMENT 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 prepares students to participate in the varied floral enterprises.

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 Opportunities

Completion of the certificate provides satisfactory qualification for employment in retail and mass market floristry industries. The program also is a means to upgrade qualification for employment in retail and mass market floristry industries.

Requirements for Certificate 17 Units

<table>
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<tr>
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<tbody>
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<td>HORT 320</td>
<td>Sustainable Landscape Construction</td>
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<tr>
<td>HORT 330</td>
<td>Small Gas Engines, Outdoor Power Equipment</td>
<td>4</td>
</tr>
</tbody>
</table>

Landscape Design Certificate

This certificate provides individuals with a basic horticulture background and a broad experience in landscape design, including landscape CADD.

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 Opportunities

Career opportunities exist with design firms and landscape contractors.

Requirements for Certificate 12 Units

<table>
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<tr>
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<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
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<td>HORT 300</td>
<td>Introduction to Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>HORT 322</td>
<td>Landscape and Irrigation Graphics and Design</td>
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<tr>
<td>HORT 326</td>
<td>Landscape Design</td>
<td>3</td>
</tr>
<tr>
<td>HORT 329</td>
<td>Landscape CAD Design</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

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.

(continued on next page)
(Plant Production Certificate continued)

- 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 Opportunities**

Career opportunities exist with plant researchers, wholesale nurseries, and retail nurseries.

**Requirements for Certificate 11 Units**

<table>
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<tr>
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<th>Title</th>
<th>Hours</th>
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<td>Pest Control Licensing For Certification</td>
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<td>Introduction to Horticulture</td>
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<td>HORT 312</td>
<td>Plant Propagation</td>
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</tr>
<tr>
<td>HORT 316</td>
<td>Plant Production, Facilities and Sales</td>
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</tbody>
</table>

**Sustainable Landscape 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.

**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 Opportunities**

Career opportunities include positions with landscape construction and maintenance firms, municipalities, and the state.

**Requirements for Certificate 17 Units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>HORT 110</td>
<td>Irrigation Design</td>
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<tr>
<td>HORT 143</td>
<td>Horticulture Skills Development</td>
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<tr>
<td>HORT 300</td>
<td>Introduction to Horticulture</td>
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<tr>
<td>HORT 305</td>
<td>Plant Identification-Fall Selections (3)</td>
<td>3</td>
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<tr>
<td>or HORT 306</td>
<td>Plant Identification-Spring Selections (3)</td>
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<tr>
<td>HORT 308</td>
<td>Viticulture-Vineyard Establishment</td>
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<td>HORT 309</td>
<td>Viticulture - Sustainable Vineyard Management</td>
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<tr>
<td>HORT 320</td>
<td>Sustainable Landscape Construction</td>
<td>3</td>
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<tr>
<td>HORT 324</td>
<td>Sustainable Landscape Maintenance</td>
<td>3</td>
</tr>
</tbody>
</table>

**HORT 100 Integrated Pest Management in the Landscape**

Hours: 36 hours LEC; 54 hours LAB

This course is a study of local plant pests including weeds, diseases, invertebrates, and vertebrates. It includes recognition of symptoms and causes, life cycle of the pests, host and habitat relationships, and methods of control. Field trips may be required.

**HORT 105 Pest Control Licensing or Certification**

Prerequisite: HORT 300 with a grade of “C” or better
Advisory: HORT 100
Hours: 36 hours LEC

This course 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**

Prerequisite: HORT 300 with a grade of “C” or better
Hours: 36 hours LEC

This course is a study of water hydraulics and irrigation equipment including drip lines, heads, pipes, pumps, clocks, and valves. Irrigation design, which includes preparing plans, dealing with measurement, head layout, pipe sizing and specifications, is covered. Field trips may be required.

**HORT 140 Advanced Student Projects**

Prerequisite: HORT 300 with a grade of “C” or better
Hours: 108 hours LAB

This course provides the student with an opportunity to pursue advanced projects which are selected by the department.

**HORT 143 Horticulture Skills Development**

Corequisite: Completion or current enrollment in a college level horticulture class.
Hours: 54 hours LAB

This course offers the opportunity to develop technical, creative, and business skills learned in other horticulture classes. Participation in assigned, supervised projects to expand and enhance knowledge of horticulture practices is included. Field trips may be required.

**HORT 200 Introduction to Retail Floristry**

Hours: 18 hours LEC; 54 hours LAB

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. Field trips may be required.

**HORT 201 Floral Design**

Hours: 18 hours LEC; 54 hours LAB

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**  2 Units  
*Hours: 18 hours LEC; 54 hours LAB*  
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**  2 Units  
*Hours: 18 hours LEC; 54 hours LAB*  
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 market place in floral design is explored. Field trips may be required.

**HORT 208 Interior Plants**  2 Units  
*Hours: 18 hours LEC; 54 hours LAB*  
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**  1-4 Units  
*Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.*  
*Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the field of horticulture with a cooperating site supervisor. Students are advised to consult with the Horticulture Department faculty to review specific certificate and degree work experience requirements.*  
*General Education: AA/AS Area III(b)*  
*Hours: 60-300 hours LAB*  
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.

**HORT 300 Introduction to Horticulture**  3 Units  
*General Education: AA/AS Area IV*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC*  
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**  3 Units  
*Corequisite: HORT 300*  
*Course Transferable to UC/CSU*  
*Hours: 36 hours LEC; 54 hours LAB*  
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**  3 Units  
*Corequisite: HORT 300*  
*Course Transferable to UC/CSU*  
*Hours: 36 hours LEC; 54 hours LAB*  
This course is a 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 and winter seasons and includes both native and non-native species as well as some plants with an edible use component. Field trips may be required.

**HORT 306 Plant Identification-Spring Selections**  3 Units  
*Corequisite: HORT 300*  
*Course Transferable to UC/CSU*  
*Hours: 36 hours LEC; 54 hours LAB*  
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. Field trips may be required.

**HORT 308 Viticulture-Vineyard Establishment**  1 Unit  
*Course Transferable to CSU*  
*Hours: 18 hours LEC*  
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**  1 Unit  
*Course Transferable to CSU*  
*Hours: 18 hours LEC*  
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**  3 Units  
*Prerequisite: HORT 300 with a grade of “C” or better*  
*Course Transferable to CSU*  
*Hours: 36 hours LEC; 54 hours LAB*  
This course is a study of 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. Field trips may be required.
HORT 316 Plant Production, Facilities and Sales 3 Units
Corequisite: HORT 300
Advisory: ENGWR 102 and ENGRD 116 with grades of “C” or better
OR ESLR 320 and ESLW 320 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required.

HORT 320 Sustainable Landscape Construction 3 Units
Prerequisite: HORT 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required.

HORT 321 Sustainable and Ecolandscape Practices 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Prerequisite: HORT 300 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 CADD for landscape, and the use of a variety of graphics skills and media. Irrigation design for landscapes studies water hydraulics, irrigation equipment, including irrigation heads, pipes, pumps, controllers and valves, and water conservation. The course includes preparing landscape and irrigation plans, plan presentation, and reprographics.

HORT 324 Sustainable Landscape Maintenance 3 Units
Prerequisite: HORT 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a study of 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 3 Units
Prerequisite: HORT 322 with a grade of “C” or better
Advisory: HORT 110, 305, and 306
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Prerequisite: HORT 322 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Prerequisite: HORT 322 with a grade of “C” or better
Advisory: DESGN 100
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is an introduction to computer assisted 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 and irrigation plans, and the generation of materials lists based on the design created for the site. Field trips may be required.

HORT 330 Small Gas Engines, Outdoor Power Equipment 4 Units
Same As: AT 301
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
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 Skills USA 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. (C-ID AG - MA 120L)

HORT 495 Independent Studies in Horticulture 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
DEGREES AND CERTIFICATES

Culinary Arts/Restaurant Management Degree
Major Code: 011149A01

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 Café provides a management training lab for advanced students in the program.

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 Opportunities
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.

Requirements for Degree  45.5 Units

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>HM 100</td>
<td>Calculations in Foodservice Occupations</td>
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<tr>
<td>HM 101</td>
<td>Introductory Culinary Skills</td>
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<tr>
<td>HM 110</td>
<td>Management and Supervision in the Hospitality Industry</td>
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<tr>
<td>HM 115</td>
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<td>HM 120</td>
<td>Beverage Operation</td>
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<tr>
<td>HM 150</td>
<td>Catering</td>
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<td>HM 300</td>
<td>Introduction to Hospitality - Becoming a Chef.</td>
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<td>HM 310</td>
<td>Sanitation, Safety and Equipment</td>
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<td>HM 315</td>
<td>Food Theory and Preparation</td>
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<tr>
<td>HM 320</td>
<td>Breads and Yeast Doughs</td>
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<td>HM 325</td>
<td>Components of Baking and Pastry</td>
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<tr>
<td>HM 340</td>
<td>Cost Control in the Food Service Industry</td>
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<tr>
<td>HM 360</td>
<td>Professional Cooking</td>
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<tr>
<td>HM 370</td>
<td>Dining Room Management</td>
<td>2</td>
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<tr>
<td>HM 380</td>
<td>Restaurant Management and Production</td>
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And a minimum of 5 units from the following: 5
HM 498 Work Experience in Hospitality Management (1 - 4)

And a minimum of 3 units from the following: 3
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)

¹HM 315 is a prequisite for all HM hot-food lab classes
²HM 370 has a co-requisite of HM 498, requiring a minimum of 8 hours per week in the Oak Café
²HM 380 has a co-requisite of HM 498, requiring a minimum of 16 hours per week in the Oak Café
²HM 375 has a corequisite of HM 498, requiring a minimum of 2 days per week in The Oak Café Bakery

Associate Degree Requirements: The Hospitality Management: Culinary Arts/Restaurant Management Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Culinary Arts/Restaurant Management Certificate
Major Code: 011148C01

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 Café is a small, fine dining restaurant that provides a management training lab for advanced students in the program.

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 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 Opportunities
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.

(continued on next page)
(Culinary Arts/Restaurant Management Certificate continued)

See losrios.edu/gainful-emp-info/gedt.php?major=011149C01 for Gainful Employment Disclosure.

Requirements for Certificate 45.5 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
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 350 Professional Cooking ...................................................................................... 3
HM 370 Dining Room Management .............................................................................. 2
HM 380 Restaurant Management and Production ...................................................... 3

And a minimum of 5 units from the following: .......................................................... 5
HM 498 Work Experience in Hospitality Management (1 - 4)

And a minimum of 3 units from the following: .......................................................... 3
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)

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 Café
3 HM 380 has a co-requisite of HM 498, requiring a minimum of 16 hours per week in the Oak Café
4 HM 375 has a corequisite of HM 498, requiring a minimum of two days per week in The Oak Café Bakery

Hospitality Management: Restaurant Management Certificate
Major Code: 011149C01

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 Café is a small, fine dining restaurant that provides management training lab for advanced students in the program.

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 Opportunities
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. See losrios.edu/gainful-emp-info/gedt.php?major=011148C01 for Gainful Employment Disclosure.

Requirements for Certificate 28 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
HM 340 Cost Control in the Food Service Industry .................................................... 2
HM 370 Dining Room Management .............................................................................. 2

And a minimum of 5 units from the following: .......................................................... 5
HM 498 Work Experience in Hospitality Management (1 - 4)

1 HM 370 requires an additional minimum of 8 hours per week in the Oak Café

Baking and Pastry Certificate
Major Code: 011574C02

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.

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.

Requirements for Certificate 25 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 (1 - 4)
HM 100 Calculations in Foodservice Occupations 3 Units
Advisory: MATH 25 or 41, or placement through the assessment process.
Hours: 54 hours LEC
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 1.5 Units
Hours: 27 hours LEC
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 2 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; or ESLR 340 AND ESLW 340.
Hours: 36 hours LEC
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 2 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340
Hours: 36 hours LEC
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 2 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
Hours: 36 hours LEC
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 3 Units
Prerequisite: HM 315 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
Hours: 18 hours LEC, 108 hours LAB
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 3 Units
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
Hours: 36 hours LEC, 54 hours LAB
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 3 Units
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
Hours: 36 hours LEC, 54 hours LAB
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 3 Units
Prerequisite: HM 315 with a grade of “C” or better
Hours: 54 hours LAB
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, pates, galantines, and sausages.

HM 190 Competitive Culinary Training 2-4 Units
Prerequisite: HM 315 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340
Hours: 18 hours LEC; 54-162 hours LAB
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 1-3 Units
Prerequisite: None
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Must have completed 15 units in Hospitality Management with a grade of “C” or better.
Hours: 6 hours LEC; 36-198 hours LAB
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 300 Introduction to Hospitality - Becoming a Chef 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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 4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC; 108 hours LAB
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 2 Units
Prerequisite: HM 100 with a grade of “C” or better, or placement through the assessment process.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
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 2 Units
Prerequisite: HM 320 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
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 2 Units
Prerequisite: HM 320 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
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 2 Units
Prerequisite: HM 320 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
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 3 Units
Prerequisite: HM 310, 320, and 325 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 2 Units
Prerequisite: HM 100 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC
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 3 Units
Prerequisite: HM 315 with a grade of “C” or better
Advisory: HM 100 and 310
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 2 Units
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 Café at American River College
Course Transferable to CSU
Hours: 36 hours LEC
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 Café two days a week.

HM 375 Bakery Management and Production 2 Units
Prerequisite: HM 310, 315, 320, and 325 with grades of “C” or better
Corequisite: HM 498
Course Transferable to CSU
Hours: 36 hours LEC
This course focuses on bakery production, merchandising, and management for a professional bakery/café 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 Café Bakery two days a week.

HM 380 Restaurant Management and Production 3 Units
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 Café American River).
Course Transferable to CSU
Hours: 54 hours LEC
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 495 Independent Studies in Hospitality Management 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to hospitality management with a cooperating site supervisor. Students are advised to consult with the Hospitality Management Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
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.

### Human Career Development

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>HCD 111</td>
<td>College Discovery Program</td>
<td>1</td>
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<tr>
<td>HCD 114</td>
<td>Human Potential Seminar</td>
<td>2</td>
</tr>
<tr>
<td>HCD 115</td>
<td>Orientation to College</td>
<td>0.5</td>
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<tr>
<td>HCD 122</td>
<td>Study Skills</td>
<td>1</td>
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<tr>
<td>HCD 160</td>
<td>Applied Life and Success Skills</td>
<td>2</td>
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**HCD 111  College Discovery Program  1 Unit**

*Hours: 18 hours LEC*

This course explores options and resources relevant to student success at American River College. It covers academic and personal goal setting, campus resources, academic requirements, basic study skill development, and strategies that are compatible with academic success.

**HCD 114  Human Potential Seminar  2 Units**

*Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320.*

*Hours: 36 hours LEC*

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  .5 Units**

*Hours: 9 hours LEC*

This course is an introduction to programs and services at American River College. Topics include procedures and college requirements, steps to success, and campus resources.

**HCD 122  Study Skills  1 Unit**

*Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320.*

*Hours: 18 hours LEC*

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 160  Applied Life and Success Skills  2 Units**

*General Education: AA/AS Area III(b)*

*Hours: 36 hours LEC*

This course covers the skills and tools necessary for daily independent living and success as a college student. It focuses specifically on disability management, life skills, personal goals, and community and campus resources. It would also be appropriate for those students interested in a career with disability services.
HCD 310  College Success  3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area III(b); CSU Area E1  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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  2 Units  
Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320  
General Education: AA/AS Area III(b)  
Course Transferable to UC/CSU  
Hours: 36 hours LEC  
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  1 Unit  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340  
General Education: AA/AS Area III(b)  
Course Transferable to CSU  
Hours: 18 hours LEC  
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  1 Unit  
Advisory: HCD 330  
General Education: AA/AS Area III(b)  
Course Transferable to CSU  
Hours: 18 hours LEC  
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  1 Unit  
General Education: AA/AS Area III(b)  
Course Transferable to CSU  
Hours: 18 hours LEC  
This course introduces a wide variety of healthcare and healthcare-related occupations, emphasizing educational programs and career opportunities. It includes the identification and analysis of career interests, skills, values, and personal traits, as well as occupational research, resulting in the development of educational and career plans.

HCD 337  Exploring Health Careers  1 Unit  
Advisory: ENGRWR 102 or 103, or ESDLW 320 with a grade of “C” or better; and ESDLW 320 with a grade of “C” or better; or placement through the assessment process.  
Course Transferable to CSU  
Hours: 18 hours LEC  
This course provides an opportunity to obtain information about a variety of health professions. This course explores the requirements to enter various health fields, including education, licensures, and volunteer experience. In addition, it offers opportunities to observe and gain knowledge in order to choose an appropriate health career goal.

HCD 364  Introduction to Peer Mentoring  1.5-4 Units  
Prerequisite: HCD 111, 114, 115, 310, or 318 with a grade of “C” or better  
Course Transferable to CSU  
Hours: 18 hours LEC, 27-162 hours LAB  
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 an on-campus program, such as the First Year Experience, SAGES, Journey program, MESA, Puente, EOP&ES, and Umoja.

HCD 382  Learning Strategies for College and Life  3 Units  
Advisory: Eligibility for ENGRD 116 and ENGWR 101; OR ESLR 320 and ESDLW 320  
General Education: AA/AS Area III(b); CSU Area E1  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course provides a universal learning environment that supports students with specific learning differences, through adaptive strategies and techniques essential for achieving academic and personal success. Topics include adaptive technology, organization, learning modalities, time management, memory development, motivation, note-taking, personal wellness, study skills, testing techniques, and critical thinking methods. Also covered are communication approaches, personal and academic barriers, and disability awareness. Additionally, campus/community resources, college regulations, and proficiency expectations are covered.
HUMAN LACTATION

Student Learning Outcomes

Upon completion of this program, the student will be able to:

1. Examine and explain the rationale for professional, national, and international policies that promote, protect, and support breastfeeding as a public health goal.
3. Identify human species-specific norms for growth and development and disease resistance based on the exclusively breastfeeding mother-baby dyad and explain the risks to the mother and infant of early introduction of artificial milk.
4. Communicate effectively about infant feeding, identifying teaching points appropriate for prenatal and postpartum women regarding breastfeeding and when educating or counseling parents who are using bottles and/or formula.
5. Evaluate current hospital practices in terms of barriers to maintaining mother-baby connectedness.
6. Devise solutions to alleviate common barriers to exclusive breastfeeding in the hospital setting, integrating concepts of system change.
7. Create an environment that supports the newborn’s natural capabilities.
8. Integrate concepts of the neurobiology of breastfeeding to address initiation and problem remediation and to support milk-supply maintenance issues.
9. Demonstrate techniques and skills to transition the newborn from one state of alertness to another and to help families perceive and understand the language and patterns of the newborn.
10. Describe essential components of community support for mothers to sustain breastfeeding beyond the early weeks.
11. Discuss contraindications to breastfeeding in the United States and identify acceptable medical reasons for supplementation of breastfed babies based on national and international authorities.
12. Uncover and explore personal values and attitudes related to the birthing and breastfeeding experience.

DEPARTMENT CERTIFICATES

**Baby Friendly Hospital Staff Certificate**

This program fulfills the criteria for staff education as set by the Baby Friendly Hospital Initiative. It focuses on the physiology of attachment, bonding, and breastfeeding and the short- and long-term impacts of perinatal care practices on the mother-baby dyad. It grapples with the challenges of applying best-practice guidelines and model hospital policies to alleviate barriers for mothers choosing exclusive breastfeeding and to create environments that support maternal-infant biology and the newborn’s natural capabilities, allowing improved outcomes with less time and effort.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

1. Demonstrate the educational and technical skills required to support breastfeeding as a public health goal.
2. Employ effective counseling skills, establishing a therapeutic relationship with respect for individual and cultural differences.
3. Evaluate breastfeeding status and potential based on understanding of lactation anatomy/physiology and signs of adequate milk transfer.
4. Compare and contrast breastmilk and breastfeeding with artificial baby milks and artificial feeding in terms of composition and physiologic/developmental effects.
5. Provide basic assistance with successful breastfeeding initiation and maintenance.

**Career Opportunities**

Hospital staff require upgraded education to meet Joint Commission accreditation standards for lactation competency and support services. SB 402, signed into law in 2013, requires all perinatal hospitals in California to implement all Ten Steps to Successful Breastfeeding as adopted by Baby Friendly USA, or an equivalent evidence-based process recognized by the California Department of Public Health, by January 1, 2025. An expanding number of local hospitals, including all those within Sacramento County, have signed letters of intent and are in the process of meeting, or have already met, Baby Friendly Hospital Initiative standards, requiring all staff to obtain this level of preparation. This means that registered nurses, particularly those in the perinatal field, will require this preparation to maintain their career. This preparation will be of significant benefit to the new nursing graduate when competing for jobs in this field.

**Requirements for Certificate**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>LACT 301</td>
<td>Supporting the Mother-Baby Connection: Evidence-Based Practices for Breastfeeding (1)</td>
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</table>

**Lactation Consultant Assistant Certificate**

This program is designed for community workers responsible for promoting and protecting breastfeeding and charged with providing basic assessment, support, and appropriate referral for breastfeeding mothers in the community. It is also useful for students entering or preparing for professions in nursing, nutrition, health education, or early childhood development as well as for practicing professionals in these fields. Topics include an overview of factors impacting breastfeeding rates, anatomy and physiology of lactation, health effects and current recommendations, and the role of the lactation consultant assistant in facilitating breastfeeding, with a focus on counseling skills and cultural awareness.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

1. Describe the lactation consultant assistant’s role, scope, and limits of practice.
2. Evaluate breastfeeding status and potential based on understanding of lactation anatomy/physiology and signs of adequate milk transfer.
3. Compare and contrast breastmilk and breastfeeding with artificial baby milks and artificial feeding in terms of composition and physiologic/developmental effects.
4. Employ effective counseling skills, establishing a therapeutic relationship with respect for individual and cultural differences.
5. Demonstrate the educational and technical skills required to provide basic assistance with successful breastfeeding initiation and maintenance.
6. Recommend appropriate interventions and referrals given a range of common early breastfeeding problems, questions, and challenging situations.
• examine barriers to breastfeeding, and investigate approaches to normalizing breastfeeding in the community and society.
• propose counseling options to address individual responses to barriers that are impacting breastfeeding success.
• recommend in-hospital practices to support breastfeeding in light of current research evidence.
• apply concepts of client confidentiality, professional etiquette, and appropriate documentation practices to the lactation consultant assistant’s role.

Career Opportunities
Lactation Consultant Assistants/Peer Counselors are utilized in the federal Women, Infants, and Children (WIC) program. Many service agencies require that their home visitors to families with young children be capable of providing basic lactation counseling and of recognizing when and where to refer an individual when lactation difficulties arise.

Requirements for Certificate 2.5 Units
HLACT 302 Fundamentals of Lactation Consultant Assisting ...................... 25

Lactation Educator/Counselor Certificate
This certificate provides the educational coursework to function as a lactation counselor or educator. Topics include an introduction to professionalism in the healthcare context; business models and opportunities for practice; limits of the lactation educator/counselor role and making appropriate referrals; evidence and rationale related to health initiatives to promote, protect, and support breastfeeding as a public health priority; systems change and acting as a change agent; physiologic basics of normal lactation; lactation-support preparation, addressing norms, barriers, and common problems; counseling essentials; and adult education principles to provide individual or group teaching. Opportunity is provided to practice these concepts in a supervised field/lab environment.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• practice within the lactation educator/counselor role, scope, and limits of practice, applying concepts of client confidentiality, professional etiquette, and appropriate documentation.
• evaluate physical, behavioral, cultural and social conditions predisposing mothers and babies to either a complex or an uncomplicated breastfeeding experience, integrating concepts of the neurobiology of breastfeeding and baby behavior, and assist in preventing or resolving common problems through counseling, education, and support, distinguishing possible need for and appropriate level of referral to other care providers as indicated.
• compare and contrast breastmilk and breastfeeding with artificial baby milks and artificial feeding in terms of composition and physiologic/developmental effects, identifying human species-specific norms for growth and development and disease resistance.
• choose and apply appropriate counseling skills and techniques in support of pregnant and breastfeeding mothers, their babies, and their partners and significant others, and develop an individualized teaching plan specific to the needs identified through assessment and counseling.
• plan and conduct lactation and related group health classes or programs and facilitate breastfeeding support groups.
• evaluate written and media materials for their suitability in lactation education and counseling, and recommend community resources for lactation support.
• defend and advocate for evidence-based breastfeeding management programs that facilitate optimal health outcomes and public health strategies to protect, promote, and support breastfeeding.

Career Opportunities
Lactation educators and counselors are often employed by obstetric and pediatric offices and clinics, hospitals, public health and community perinatal programs, federal Women, Infants, and Children (WIC) programs, and private baby boutiques. Individually may desire this credential to augment their birth or postpartum doula role and are capable of working in independent practice.

Requirements for Certificate 6.5 Units
HLACT 301 Supporting the Mother-Baby Connection: Evidence-Based Practices for Perinatal Care (1) ................................................................. 1
or NURSE 391 Supporting the Mother-Baby Connection: Evidence-Based Practices for Perinatal Care (1) .................................................. 1
HLACT 302 Fundamentals of Lactation Consultant Assisting ...................... 2.5
HLACT 311 Human Lactation for Lactation Counselors & Educators ............. 2.5
HLACT 321 Interpreting Baby Behavior ...................................................... 0.5

HLACT 301 Supporting the Mother-Baby Connection: Evidence-Based Practices for Perinatal Care 1 Unit
Same As: NURSE 391
Course Transferable to CSU
Hours: 18 hours LEC
This course is designed for practicing health care professionals as well as students preparing to enter the fields of nursing, nutrition, health education, or early childhood development. It focuses on the physiology of attachment, bonding, and breastfeeding and the short- and long-term impacts of perinatal care practices on the mother-baby dyad. It grapples with the challenges of applying best-practice guidelines and model hospital policies to alleviate barriers for mothers choosing exclusive breastfeeding and creating environments that support maternal-infant biology and the newborn’s natural capabilities, allowing improved outcomes with less time and effort.
This course meets Board of Registered Nursing continuing education requirements and, when combined with requisite supervised clinical experience, fulfills all criteria for staff education as set by the Baby Friendly Hospital Initiative. This course is not open to students who have completed NURSE 391.

HLACT 302 Fundamentals of Lactation Consultant Assisting 2.5 Units
Course Transferable to CSU
Hours: 45 hours LEC
This course is designed for community workers responsible for promoting and protecting breastfeeding and charged with providing basic assessment, support, and appropriate referral for breastfeeding mothers in the community. It is also an introductory course in human lactation for students entering or preparing for professions in nursing, nutrition, health education, or early childhood development as well as for practicing professionals in these fields. This course provides an overview of factors impacting breastfeeding rates, explores health effects and current recommendations, discusses the anatomy and physiology of lactation, and considers the role of the lactation consultant assistant in facilitating breastfeeding. It covers counseling skills, cultural awareness, and community resources for promoting, protecting, and supporting breastfeeding. This course is formerly known as NURSE 390.
HLACT 311 Human Lactation for Lactation Counselors & Educators 2.5 Units
Prerequisite: HLACT 302 with a grade of “C” or better
Corequisite: HLACT 301 or NURSE 391; AND HLACT 321.
Advisory: ECE 312, PSYC 300, PSYC 372, or SPEECH 361
Course Transferable to CSU
Hours: 42 hours LEC; 9 hours LAB
This course prepares healthcare professionals, or other interested individuals who work with mothers and children, to provide evidence-based support to families, focusing on the normal processes of human lactation, the principles of adult education, and the art of counseling. It enables participants to provide accurate and consistent information about breastfeeding and lactation from birth through the process of weaning to improve breastfeeding outcomes.

HLACT 321 Interpreting Baby Behavior .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course provides expertise in cutting-edge, evidence-based messages about babies’ cues, crying, and sleep patterns and how to teach these to new parents. Parents with inaccurate expectations about infant behavior are less able to interact effectively with their infants. Infant crying and waking are common reasons for using supplemental formula or discontinuing breastfeeding. Helping parents better understand and their infant’s behavior supports new mothers in providing appropriate interactions and responsiveness to their infant’s needs while meeting their breastfeeding goals, preventing overfeeding and the risk of obesity. This expertise is essential for lactation support professionals as well as for those in the child development and early childhood education professions.

HLACT 322 Nutrition and Biochemistry of Human Lactation 1 Unit
Same As: NUTRI 321
Prerequisite: NUTRI 300 with a grade of “C” or better
Advisory: BIOL 102
Course Transferable to CSU
Hours: 18 hours LEC
This course addresses dietary recommendations for lactating women and for infants and young children with an emphasis on breastfeeding as the evidence-based norm. It also covers cultural and physiologic weaning practices and appropriate complementary foods. Primary topics include comparison of human milk with milks of other mammals and with other products and artificial baby milks, the array of individual biochemical and biological components in human milk, and their multiple nutritional and bioactive functions with a focus on immunologic components. Toxicology and pharmacology related to human milk and lactation are addressed. This course is not open to students who have completed NUTRI 321.

HLACT 331 Foundations of Lactation Consultant Practice 2 Units
Corequisite: HLACT 351
Advisory: HLACT 322 or NUTRI 321 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC
This course builds core competencies for lactation consultant practice. It is designed for individuals who will be working with mothers and young children in a variety of healthcare and other settings and is suitable for physicians; midwives; community, pediatric, and perinatal nurses; dietitians; speech, physical, and occupational therapists; social workers; and others with the requisite background in social and biological sciences and the field of human lactation. It provides preparation for conducting a systematic assessment of mother and child related to breastfeeding; selecting effective, evidence-based, individualized assistance for the breastfeeding dyad including triage and referral to other care providers as indicated; evaluating the outcomes; and revising the plan of care as required. Emphasis is placed on coordinating care of women and babies who are at risk of or currently experiencing lactation difficulties related to pregnancy, labor, birth, postpartum, and newborn interventions and complications, with particular focus on choosing behaviors consistent with standards of professional ethics and the lactation consultant scope of practice. Interpretation of scientific research is introduced.

HLACT 342 Managing Complex Problems in Lactation Consultant Practice 2 Units
Prerequisite: HLACT 331 with a grade of “C” or better
Corequisite: HLACT 322 or NUTRI 321; AND HLACT 352.
Course Transferable to CSU
Hours: 36 hours LEC
This course builds on the skills and knowledge base acquired through HLACT 331 and HLACT 351 to cover all areas of the International Board of Lactation Consultant Examiners certification examination blueprint. It applies the lactation consultant process to complex breastfeeding experiences, including those affected by mental or physical health alterations or physical disabilities in the mother; anatomical, neurological, gastrointestinal, or other serious health alterations in the child; and vulnerable, at-risk populations including those experiencing emergency events or disasters. It covers appropriate use of selected breastfeeding aids, techniques, and devices in specific clinical situations and integrates behaviors consistent with standards of professional ethics and the lactation consultant scope of practice. The systematic review and critical analysis of relevant research is developed to support evidence-based practice.

HLACT 351 Clinical Preceptorship in Lactation Consulting I 3.5 Units
Corequisite: HLACT 331
Course Transferable to CSU
Hours: 189 hours LAB
This course provides clinical opportunities to apply the cognitive knowledge and skills gained in HLACT 331 and its prerequisite courses. It serves as preparation for the more advanced clinical expectations in HLACT 352. Clinical experience is provided in regional hospitals and clinics under the direct supervision and evaluation of an International Board Certified Lactation Consultant (IBCLC) with over 5 years post-certification experience. Field trips are required. Students are responsible for costs associated with meeting the health, background check, liability insurance, and CPR certification requirements for Allied Health Program clinical placement.

HLACT 352 Clinical Preceptorship in Lactation Consulting II 3.5 Units
Prerequisite: HLACT 331 and 351 with grades of “C” or better
Corequisite: HLACT 342
Course Transferable to CSU
Hours: 189 hours LAB
This course provides clinical opportunities to apply the cognitive knowledge and skills gained in HLACT 342 and its prerequisite courses. It serves as the final clinical preparation course for Lactation Consultant preparation. Clinical experience is provided in regional hospitals and clinics under the direct supervision and evaluation of an International Board Certified Lactation Consultant (IBCLC) with over 5 years post-certification experience. Field trips are required. Students are responsible for costs associated with meeting the health, background check, liability insurance, and CPR certification requirements for Allied Health Program clinical placement.
DEGREES AND CERTIFICATES

Human Services Degree and Certificate
Major Code, degree: 011151A01
Major Code, certificate: 011151C01
The program in Human Services 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 education, professional ethics, and reports and record keeping.

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, justice, and inclusion

See losrios.edu/gainful-emp-info/gedt.php?major=011151C01 for Gainful Employment Disclosure.

Requirements for Degree or Certificate  32 Units
HSER 300 Introduction to Human Services ............................................. 3
HSER 310 Ethical Issues and Client’s Rights (3) ..................................... 3
or GERON 304 Ethical Issues and Client’s Rights (3) .............................. 3
HSER 330 Issues of Diverse Populations (3) ............................................. 3
or PSYC 365 Issues of Diverse Populations (3) ............................................. 3
HSER 340 Introduction to Chemical Dependency (3) .............................. 3
or PSYC 400 Introduction to Chemical Dependency (3) ......................... 3
HSER 360 Techniques of Interviewing and Counseling .......................... 3
HSER 365 Techniques of Group Counseling ............................................. 3
PSYC 300 General Principles (3) ............................................................ 3
or PSYC 305 Psychology Applied to Modern Life (3) ............................... 3
PSYC 340 Abnormal Behavior ............................................................... 3
or PSYC 481 Honors Abnormal Behavior (3) ......................................... 3
SOC 300 Introductory Sociology ............................................................ 3
HSER 362 Practices in Human Services .................................................... 3
HSER 498 Work Experience in Human Services ..................................... 2
Two units are required.

Associate Degree Requirements: The Human Services Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Chemical Dependency Studies Degree and Certificate
Major Code, degree: 011153A01
Major Code, certificate: 011153C01
The 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, clients education, client’s rights, confidentiality, professional ethics, and reports and record keeping.

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, justice, and inclusion

Career Opportunities
Upon completion of the program a student possesses the coursework required for initial certification as a California drug and alcohol counselor (CDAC).

See losrios.edu/gainful-emp-info/gedt.php?major=011153C01 for Gainful Employment Disclosure.

Requirements for Degree or Certificate  37 Units
HSER 300 Introduction to Human Services ............................................. 3
HSER 310 Ethical Issues and Client’s Rights (3) ..................................... 3
or GERON 304 Ethical Issues and Client’s Rights (3) .............................. 3
HSER 330 Issues of Diverse Populations (3) ............................................. 3
or PSYC 365 Issues of Diverse Populations (3) ............................................. 3
HSER 340 Introduction to Chemical Dependency (3) .............................. 3
or PSYC 400 Introduction to Chemical Dependency (3) ......................... 3
HSER 341 Physiology and Pharmacology: Alcohol & Other Drugs (3) ......................... 3
or PSYC 401 Physiology and Pharmacology: Alcohol & Other Drugs (3) ......................... 3
HSER 342 Alcoholism: Intervention, Treatment & Recovery (3) ............... 3
or PSYC 402 Alcoholism: Intervention, Treatment & Recovery (3) ............... 3
HSER 360 Techniques of Interviewing and Counseling .......................... 3
HSER 365 Techniques of Group Counseling ............................................. 3

(continued on next page)
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HUMAN SERVICES

(Chemical Dependency Studies Degree and Certificate continued)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>PSYC 300</td>
<td>General Principles</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 305</td>
<td>Psychology Applied to Modern Life</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 340</td>
<td>Abnormal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 481</td>
<td>Honors Abnormal Behavior</td>
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<tr>
<td>HSER 362</td>
<td>Practices in Human Services</td>
<td>3</td>
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<tr>
<td>HSER 368</td>
<td>Work Experience in Human Services</td>
<td>4</td>
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</tbody>
</table>

1Four units are required.

Associate Degree Requirements: The Chemical Dependency Studies Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Human Services

HSER 300 Introduction to Human Services 3 Units
Prerequisite: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300, OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC

This course is a comprehensive overview of the field of human services and an introduction to attitudes and methods that enhance communication skills in human relations and enable effective intervention in problem situations. It emphasizes the roles and skills of associate professionals, such as but not limited to drug and alcohol counselors, mental health workers, and activity directors with the elderly, and adolescent and child welfare assistants. It also emphasizes group techniques. An off-campus site visit is required.

HSER 310 Ethical Issues and Client’s Rights 3 Units
Same As: GERON 304
Corequisite: HSER 300
Advisory: ENGRWR 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.
Course Transferable to CSU
Hours: 54 hours LEC

This course is a comprehensive exploration of the basic ethical issues involving human services delivery. Topics include professional ethics, confidentiality, counselor and clients’ rights, and other areas involving ethical controversies. This course is not open to students who have completed GERON 304.

HSER 330 Issues of Diverse Populations 3 Units
Same As: PSYC 365
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC

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 PSYC 365.

HSER 340 Introduction to Chemical Dependency 3 Units
Same As: PSYC 400
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC

This course examines the biopsychosociocultural effects of chemical dependency on the individual and the family. It includes an analysis of drug use; misuse and abuse across age, gender, 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 PSYC 400.

HSER 341 Physiology and Pharmacology: Alcohol & Other Drugs 3 Units
Same As: PSYC 401
Prerequisite: ENGRWR 102 or ESLW 320 and HSER 340 or PSYC 400 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC

This course is a study of the chemical composition of alcohol and the mechanism of action of alcohol and other psychoactive drugs, including opiates, stimulants, depressants, psychotherapeutics, and psychedelics. It also includes 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 PSYC 401.

HSER 342 Alcoholism: Intervention, Treatment & Recovery 3 Units
Same As: PSYC 402
Prerequisite: HSER 341 or PSYC 401 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC

This course is a study and evaluation of techniques used in the treatment of chemical dependency. Topics include intervention, individual and group counseling, detoxification, twelve-step program, therapeutic communities, and aftercare programs. This course is not open to students who have completed PSYC 402.

HSER 360 Techniques of Interviewing and Counseling 3 Units
Prerequisite: HSER 300 with a grade of “C” or better
Corequisite: GERON 304 or HSER 310
Advisory: ENGRWR 102 and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; AND ESLR 310 or ESLW 320 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC

This course is a survey of interview and counseling techniques appropriate for paraprofessionals in mental health, corrections, and substance abuse counseling. It includes theories of family co-dependency and techniques for counseling the family and significant others of substance abusers.
HSER 362  Practices in Human Services  3 Units
Corequisite: HSER 365 and 498
Enrollment Limitation: Completion of the American River College Human Services Agency Placement Process.
Course Transferable to CSU
Hours: 54 hours LEC
This course provides advanced study and applied integration of human services theory to prepare students for field experience. Techniques applying concepts, values, and skills acquired in other core courses to the process of helping others are covered.

HSER 365  Techniques of Group Counseling  3 Units
Prerequisite: HSER 360 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the basic elements of group counseling. Ethical issues are compared and analyzed. Emphasis is on the use of facilitating skills and group dynamics.

HSER 495  Independent Studies in Human Services  1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.

HSER 498  Work Experience in Human Services  1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 and ENGW 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to human services with a cooperating site supervisor. Students are advised to consult with the Human Services Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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. 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.
Humanities is the study of painting, sculpture, literature, music, theater, and philosophy with the goal of discovering important ideas about our human condition. Humanities courses examine key arts and ideas as found in ancient through modern Europe, Asia, the Middle East, and the Americas. The Humanities department also offers courses in the Hebrew Bible (Old Testament), the New Testament, world religions, and atheism.

Humanities is an interdisciplinary program committed to learning, reflection, and action predicated upon engagements between and across academic disciplines including religion, philosophy, literature, music, theater, painting, architecture, and sculpture. Our courses recognize and explore the dynamics of differences throughout human history, thought, experience, and expression by examining individual thinkers, artists, works, and ideas in their particular cultural and historical contexts. To pursue Humanities is to become a caring and critical co-investigator of how human beings encounter culture, community, place, time, consciousness, faith, meaning, representation, and change in a complex and globally interconnected world.

### Humanities

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Advisory</th>
<th>General Education</th>
<th>Course Transferable to UC/CSU</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HUM 300</td>
<td>Classical Humanities</td>
<td>3</td>
<td>Eligible for ENGRD 310 or 312, AND ENGWR 300; OR ESLR 340 or ESLW 340.</td>
<td>AA/AS Area I; CSU Area C2; IGETC Area 3B</td>
<td>Course Transferable to UC/CSU</td>
<td>54 LEC</td>
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<tr>
<td>HUM 301</td>
<td>Introduction to the Humanities</td>
<td>3</td>
<td>ENGWR 102, ENGWR 103, or ESLW 320</td>
<td>AA/AS Area I; CSU Area C2; IGETC Area 3B</td>
<td>Course Transferable to UC/CSU</td>
<td>54 LEC</td>
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<tr>
<td>HUM 302</td>
<td>Global Humanities: Atheism in Creativity, Thought, and Inspiration Traditions</td>
<td>3</td>
<td>Eligible for ENGRD 310 or 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.</td>
<td>AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B</td>
<td>Course Transferable to UC/CSU</td>
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<td>HUM 310</td>
<td>Modern Humanities</td>
<td>3</td>
<td>Eligible for ENGRD 310 or 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.</td>
<td>AA/AS Area I; CSU Area C2; IGETC Area 3B</td>
<td>Course Transferable to UC/CSU</td>
<td>54 LEC</td>
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</table>
HUM 320 Asian Humanities 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course 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 324 Global Islam: Culture and Civilization 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 Quran, Islamic belief and ritual, Islamic law, early artistic expressions, and popular spirituality) as well as debates surrounding Islam in the contemporary world.

HUM 326 Middle Eastern Humanities 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Advisory: ENGW 102 or ENGW 103 and ENGRD 116 with a grade of “C” or better OR ESLR 320 and ESLW 320.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines 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 355 Introduction to World Religions 3 Units
Advisory: Eligible for ENGRD 310 OR ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course 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.

HUM 360 Introduction to the Old Testament (The Hebrew Bible) 3 Units
Advisory: Eligible for ENGRD 310 OR ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

HUM 365 Introduction to the New Testament 3 Units
Advisory: Eligible for ENGRD 310 OR ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.
DEGREES AND CERTIFICATES

English Communication and Literature Degree
Major Code: 011159A01

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 workplace. 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.

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.

Requirements for Degree 18 Units

A minimum of 3 units from the following: ............................................................... 3
ENGL T 302  Introduction to Fiction (3)
or ENGL T 300  Introduction to Poetry (3)

A minimum of 12 units from the following: ....................................................... 12
ENGL T 300  Introduction to Fiction (3)
ENGL T 304  Introduction to Poetry (3)
ENGL T 308  The Graphic Novel and Manga (3)
ENGL T 310  English Literature I (3)
ENGL T 311  English Literature II (3)
ENGL T 320  American Literature (3)
ENGL T 321  American Literature II (3)
ENGL T 327  Literature of California (3)
ENGL T 335  Latino, Mexican-American, and Chicano Literature (3)
ENGL T 338  Native American Literature (3)
ENGL T 340  World Literature I (3)
ENGL T 341  World Literature II (3)
ENGL T 345  Mythologies of the World (3)
ENGL T 360  Women in Literature (3)
ENGL T 365  Introduction to Gay, Lesbian, Bisexual and Transgender Literature (3)
ENGL T 370  Children and Literature (3)
ENGL T 378  Young Adult Literature (3)
ENGL T 380  Introduction to Shakespeare (3)
ENGL T 382  Introduction to Dramatic Literature (3)
ENGL T 392  Science Fiction and Fantasy (3)
ENGL T 403  Film Adaptations (3)

A minimum of 3 additional units chosen from either of the groups of courses listed above.

History of the Creative Arts Degree
Major Code: 011160A01

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.

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.

Requirements for Degree 18 Units

A minimum of 18 units from the following: ..................................................... 18
ARTH 300  Introduction to Art (3)
ARTH 302  Art: Stone Age Through the Middle Ages (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)
ARTH 335  History of Graphic Design (3)
ARTHM 305  History of Western World Fashion (3)
HUM 300  Classical Humanities (3)
HUM 301  Introduction to the Humanities (3)
HUM 302  Global Humanities: Atheism in Creativity, Thought, and Inspiration Traditions (3)
HUM 310  Modern Humanities (3)
HUM 320  Asian Humanities (3)
HUM 324  Global Islam: Culture and Civilization (3)
HUM 326  Middle Eastern Humanities (3)
HUM 330  Humanities of the Americas (3)
HUM 355  Introduction to World Religions (3)
HUM 360  Introduction to the Old Testament (The Hebrew Bible) (3)
HUM 365  Introduction to the New Testament (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)
The Individual and Society Degree

Major Code: 011161A01

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 majoring at a four-year college in Psychology, Sociology, Ethnic Studies, Women's Studies and Child Development.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- examine human diversity in relation to psychological theory.
- identify the consequences of ethnocentrism and gender bias on social interactions.
- analyze the influence of culture, family, society, and environment on an individual's development.
- analyze patterns of social problems which are based on ethnic and cultural differences in the United States.

Requirements for Degree

18 Units

A minimum of 18 units from the following: .......................................................... 18

- ANTH 319 Visual Anthropology: Introduction to Ethnographic Film (3)
- ANTH 320 Introduction to Archaeology and World Prehistory (3)
- ANTH 333 American Indians of California (3)
- ANTH 334 Native Peoples of North America (3)
- ANTH 336 Anthropology of Sex, Sexuality and Gender (3)
- ANTH 480 Honors Biological Anthropology (3)
- ANTH 481 Honors Cultural Anthropology (3)
- ECE 312 Child Development (3)
- PSYC 372 Child Development (3)
- PSYC 314 The Child, the Family and the Community (3)
- PSYC 330 Infant and Toddler Development (3)
- PSYC 404 Children with Special Needs (3)
- PSYC 430 Culture and Diversity in Early Childhood Education (3)
- PSYC 432 Leadership in Diversity (3)
- HSER 330 Issues of Diverse Populations (3)
- PSYC 300 General Principles (3)
- PSYC 305 Psychology Applied to Modern Life (3)
- PSYC 320 Social Psychology (3)
- PSYC 340 Abnormal Behavior (3)
- PSYC 341 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 358 Principles of Interpersonal Relations (3)
- PSYC 359 Stress Management and Health (3)
- PSYC 361 Psychology of Women in a Multicultural Society (3)
- PSYC 370 Human Development: A Multicultural Society (3)
- PSYC 372 Child Psychology (3)
- PSYC 374 Psychology of Aging: Adult Development and Aging (3)
- PSYC 375 Psychology of Aging: Adult Development and Aging (3)
- PSYC 380 Psychology of Death and Dying (3)
- PSYC 415 Studying in London: Psychological Elements of British Life and Culture (3)
- PSYC 480 Honors General Principles (3)
- PSYC 481 Honors Abnormal Behavior (3)
- SOC 300 Introductory Sociology (3)
- SOC 301 Social Problems (3)
- SOC 302 Addition to America (3)
- SOC 325 Chicano Culture (3)
- SOC 335 Sociology of Aging (3)
- SOC 340 Sociology of Popular Culture (3)
- SOC 341 Gender Relations in American Society (3)
- SOC 400 Sociology of Aging (3)
- SOC 415 Honors Sociology of Aging (3)
- SOC 480 Introductory Sociology - Honors (3)

CSU General Education Certificate

Major Code: 011132C01

This certificate is designed for students planning to transfer to a California State University (CSU) campus. Completion of this certificate ensures that the student has met the lower division General Education requirements for all CSU campuses.

Student Learning Outcomes

Upon completion of this certificate program, the student will be able to:

- explain the values of a culture as expressed through its art or language.
- demonstrate effective expository and persuasive writing skills.
- develop a reasoned solution to a problem.
- evaluate new and accepted ideas about the natural universe using testable methodology.
- evaluate the methods of inquiry and evidence used in the behavioral and social sciences.

Requirements for Certificate

39 Units

A minimum of 39 units from the following: .......................................................... 39

Students must complete a minimum of 39 units used to satisfy the CSU General Education requirements. See the CSU General Education pattern listed in the American River College (ARC) catalog or consult with an ARC counselor.
Intersegmental General Education Transfer (IGETC) Certificate

Major Code, CSU: 011132C02
Major Code, UC: 011132C03

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.

Student Learning Outcomes

Upon completion of this certificate program, the student will be able to:

• explain the values of a culture as expressed through its art or language.
• demonstrate effective expository and persuasive writing skills.
• develop a reasoned solution to a problem.
• evaluate new and accepted ideas about the natural universe using testable methodology.
• evaluate the methods of inquiry and evidence used in the behavioral and social sciences.

Requirements for Certificate 34 - 37 Units

A minimum of 34-37 units from the following: ................................................ 34-37

Students must complete a minimum of 34 - 37 units used to satisfy IGETC certification requirements. See the IGETC pattern in the American River College (ARC) catalog or consult with an ARC counselor.

Honors Transfer Certificate

Major Code: 011133C01

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. A total of 12 units of degree-applicable coursework must be earned at ARC to meet residency requirements. Most courses in the certificate fulfill requirements for the ARC A.A., A.S., A.A.-T., A.S.-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 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.
DEGREES AND CERTIFICATES

Interior Planning and Design Degree

Major Code: 01162A01

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.

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 Opportunities

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 opportunities, which include space planning, 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.

Requirements for Degree 40-43 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>IDES 300</td>
<td>3</td>
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<td>IDES 310</td>
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<tr>
<td>IDES 312</td>
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<td>IDES 350</td>
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<td>IDES 351</td>
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<tr>
<td>WEXP 498</td>
<td>1-4</td>
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</tbody>
</table>

And 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 302  Art: Stone Age Through the Middle Ages ..................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

Associate Degree Requirements: The Interior Planning and Design Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Para Professional Interior Planning and Design Certificate

Major Code: 011307C01

This certificate provides a foundation of education and skills for students 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.

Student Learning Outcomes

Upon completion of this certificate 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 Opportunities

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.

(continued on next page)
Green Building and Sustainable Design for Interiors Certificate

This certificate provides students with expertise in the requirements for designing green and sustainable interiors.

**Student Learning Outcomes**

Upon completion of this certificate 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 Opportunities**

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.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>IDES 300</td>
<td>Fundamentals of Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>IDES 302</td>
<td>Introduction to Green Building and Sustainable Design in Interiors</td>
<td>3</td>
</tr>
<tr>
<td>IDES 381</td>
<td>Lighting and Electrical for Green and Sustainable Interiors</td>
<td>3</td>
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</tbody>
</table>

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.

**Student Learning Outcomes**

Upon completion of this certificate 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 as well as incorporating sound design principles.

**Career Opportunities**

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011306C01 for Gainful Employment Disclosure.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>IDES 300</td>
<td>Fundamentals of Interior Design</td>
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<tr>
<td>IDES 310</td>
<td>History of Interior Architecture and Furnishings</td>
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<td>IDES 322</td>
<td>Materials of Interior Design</td>
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<tr>
<td>IDES 324</td>
<td>Interior Design Business Practices</td>
<td>3</td>
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<tr>
<td>IDES 330</td>
<td>Beginning Interior Design Studio</td>
<td>3</td>
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DEPARTMENT CERTIFICATES

Designed 4 Life Certificate

This certificate provides training in designing quality living environments. It includes various courses in Gerontology and Interior Design and covers how to successfully, safely, effectively, and aesthetically design interiors for all ages and abilities.

**Student Learning Outcomes**

Upon completion of this certificate program, the student will be able to:

- evaluate interior environments and design changes in their function.
- categorize specific expectations and desires in terms of the client’s needs.
- design environments for all ages and abilities.
- design interiors that reflect the needs of the client.

**Career Opportunities**

Our aging population is requiring more specialized design for long-term independence. This certificate offers opportunities in careers for both gerontology and interior design.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GERON 302</td>
<td>Psychology of Aging: Adult Development and Aging</td>
<td>3</td>
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<tr>
<td>GERON 362</td>
<td>Biology of Aging</td>
<td>3</td>
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<tr>
<td>GERON 280</td>
<td>Home Adaptations for Safety and Independence</td>
<td>0.5</td>
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<tr>
<td>IDES 350</td>
<td>Codes and Universal Access for Interior Design</td>
<td>0.5</td>
</tr>
<tr>
<td>IDES 355</td>
<td>Residences: Designed 4 Life</td>
<td>2</td>
</tr>
</tbody>
</table>
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.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• assess the client’s needs.
• design residences that will successfully meet the needs of most people.
• analyze how Universal Design is used in a floor plan.

Career Opportunities

Students who have completed this certificate may work in full residential design. They may also specialize in residential kitchen and/or bath design.

Requirements for Certificate 16 Units

GERON 280  Home Adaptations for Safety and Independence 0.5
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
IDES 355  Residences: Designed 4 Life 3

Interior Design

IDES 101  Interior Design Careers 0.5 Units

This course explores a variety of career options in the multi-faceted field of interior design. Field trips are required.

IDES 102  Working with Clients 0.5 Units

This course covers methods for effectively working with clients. Field trips are required.

IDES 103  Furniture Markets 0.5 Units

Hours: 9 hours LEC

This course provides an opportunity to attend seasonal markets, such as the San Francisco Design Center (SFDC), to tour showrooms, attend lectures, and see the upcoming interior design offerings. Trends, markets, budgets, and products are discussed. Field trips are required.

IDES 104  Home Staging 0.5 Units

Hours: 9 hours LEC

This course is a basic introduction to the process of staging homes for sale. Topics include model homes and resale. Field trips are required.

IDES 105  Color and Interior Design 0.5 Units

Hours: 9 hours LEC

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. Field trips are required. Pass/No Pass only.

IDES 106  Lighting For Better Health 0.5 Units

Hours: 9 hours LEC

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. Field trips are required.

IDES 107  Interior Design Specifications 0.5 Units

Hours: 9 hours LEC

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. Field trips may be required.

IDES 108  Home Staging 0.5 Units

Hours: 9 hours LEC

This course is a basic introduction to the process of staging homes for sale. Topics include model homes and resale. Field trips are required.

IDES 109  Interior Design Specifications 0.5 Units

Hours: 9 hours LEC

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. Field trips may be required.

IDES 110  Event Planning for Interior Designers 1 Unit

Hours: 18 hours LEC

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. Field trips are required. Pass/No Pass only.

IDES 111  Interior Design Careers 0.5 Units

Hours: 9 hours LEC

This course explores a variety of career options in the multi-faceted field of interior design. Field trips are required.

IDES 112  Working with Clients 0.5 Units

Hours: 9 hours LEC

This course covers methods for effectively working with clients. Field trips are required.

IDES 113  Furniture Markets 0.5 Units

Hours: 9 hours LEC

This course provides an opportunity to attend seasonal markets, such as the San Francisco Design Center (SFDC), to tour showrooms, attend lectures, and see the upcoming interior design offerings. Trends, markets, budgets, and products are discussed. Field trips are required.

IDES 114  Home Staging 0.5 Units

Hours: 9 hours LEC

This course is a basic introduction to the process of staging homes for sale. Topics include model homes and resale. Field trips are required.

IDES 115  Color and Interior Design 0.5 Units

Hours: 9 hours LEC

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. Field trips are required. Pass/No Pass only.

IDES 116  Lighting For Better Health 0.5 Units

Hours: 9 hours LEC

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. Field trips are required.

IDES 117  Interior Design Specifications 0.5 Units

Hours: 9 hours LEC

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. Field trips may be required.

IDES 118  Event Planning for Interior Designers 1 Unit

Hours: 18 hours LEC

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. Field trips are required. Pass/No Pass only.

IDES 119  Interior Design Careers 0.5 Units

Hours: 9 hours LEC

This course explores a variety of career options in the multi-faceted field of interior design. Field trips are required.

IDES 120  Working with Clients 0.5 Units

Hours: 9 hours LEC

This course covers methods for effectively working with clients. Field trips are required.

IDES 121  Furniture Markets 0.5 Units

Hours: 9 hours LEC

This course provides an opportunity to attend seasonal markets, such as the San Francisco Design Center (SFDC), to tour showrooms, attend lectures, and see the upcoming interior design offerings. Trends, markets, budgets, and products are discussed. Field trips are required.

IDES 122  Home Staging 0.5 Units

Hours: 9 hours LEC

This course is a basic introduction to the process of staging homes for sale. Topics include model homes and resale. Field trips are required.

IDES 123  Color and Interior Design 0.5 Units

Hours: 9 hours LEC

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. Field trips are required. Pass/No Pass only.

IDES 124  Lighting For Better Health 0.5 Units

Hours: 9 hours LEC

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. Field trips are required.

IDES 125  Interior Design Specifications 0.5 Units

Hours: 9 hours LEC

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. Field trips may be required.

IDES 126  Event Planning for Interior Designers 1 Unit

Hours: 18 hours LEC

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. Field trips are required. Pass/No Pass only.

IDES 127  Interior Design Careers 0.5 Units

Hours: 9 hours LEC

This course explores a variety of career options in the multi-faceted field of interior design. Field trips are required.

IDES 128  Working with Clients 0.5 Units

Hours: 9 hours LEC

This course covers methods for effectively working with clients. Field trips are required.

INDEX
IDES 132  Sacramento Design History - Victorian .5 Unit
Hours: 9 hours LEC
This course explores the styles of Victorian architectural and interior design history in the Sacramento area. Field trips are required. Pass/No Pass only.

IDES 133  Sacramento Design History - Bungalows .5 Unit
Hours: 9 hours LEC
This course explores the architectural and interior design history of bungalows in the Sacramento area. Field trips are required. Pass/No Pass only.

IDES 134  Sacramento Design History - Fabulous Forties .5 Unit
Hours: 9 hours LEC
This course explores architectural and interior design history of the Fabulous Forties area in Sacramento. Field trips are required. Pass/No Pass only.

IDES 135  Sacramento Design History - Mid-Century Modern .5 Unit
Hours: 9 hours LEC
This course explores mid-century modern architectural and interior design history in the Sacramento area. Field trips are required. Pass/No Pass only.

IDES 136  Sacramento Design History - Modern and Contemporary .5 Unit
Hours: 9 hours LEC
This course explores the Modern and contemporary architectural and interior design history in the Sacramento areas. Field trips are required. Pass/No Pass only.

IDES 301  Fundamentals of Interior Design 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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. Field trips may be required.

IDES 302  Introduction to Green Building and Sustainable Design in Interiors 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
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. Field trips may be required.

IDES 310  History of Interior Architecture and Furnishings I 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C1; CSU Area C2
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the historical relationship between the decorative arts, period furniture, and interior architecture from antiquity through Victorian. Emphasis is placed on identification of specific furniture styles and architectural features. Field trips may be required.

IDES 311  History of Interior Architecture and Furnishings II 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 non-western styles are also included.

IDES 321  Materials of Interior Design 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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. Field trips may be required.

IDES 322  Interior Design Business Practices 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
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. Field trips may be required.

IDES 323  Interior Design Sales 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course covers various aspects of selling proposed residential and commercial design projects. Included are personal presentations, selling techniques, making the sale, closing the deal, job completion, and follow up. Field trips may be required.

IDES 330  Beginning Interior Design Studio 3 Units
Advisory: MATH 25 or 41 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course covers basic construction, layouts, products, and materials. Topics include floor plans, structural elements, and interior space planning. Presentation methods are explored. Field trips may be required.

IDES 332  Portfolio and Presentation in Interior Design 3 Units
Prerequisite: IDES 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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.
IDES 340 Beginning CADD for Interior Design 3 Units
Prerequisite: IDES 330 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course employs beginning computer-aided drafting and design (CADD) for interior design projects. Floor plans, space planning, elevations, and perspectives are created. Field trips may be required.

IDES 341 Intermediate CADD for Interior Design 3 Units
Prerequisite: IDES 340 with a grade of "C" or better
Advisory: IDES 334 and 354
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
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 2 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC
This course explores local, state, and federal regulations concerning life-safety issues and barrier-free access (Americans with Disabilities Act and Universal Design requirements) relative to residential and contract design. It also covers codes and interior specifications. Special attention is given to performance, health-safety, and barrier-free design when estimating and preparing specifications for space planning, materials, and furnishings/products.

IDES 351 Codes and Universal Access Lab 1 Unit
Prerequisite: IDES 330 with a grade of "C" or better
Corequisite: IDES 350
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LAB
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 355 Residences: Designed 4 Life 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the successful design of residences for a variety of users, regardless of their age, size, physical abilities, or limitations. It also encompasses specialty and adaptive appliances, plumbing fixtures, cabinetry, appropriate finish materials, space planning, and furnishings. Field trips may be required.

IDES 381 Lighting and Electrical for Green and Sustainable Interiors 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
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. Field trips may be required.

IDES 412 Specifications for Interior Design 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
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 495 Independent Studies in Interior Design 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to interior design with a cooperating site supervisor. Students are advised to consult with the Interior Design Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
Global Studies A.A. for Transfer Degree

Major Code, CSU GE: 011235A01
Major Code, IGETC: 011235A02

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.

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

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 and incorporate 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 work environment, recognize people’s socio-economic, political, and geographical background.
• analyze local and societal issues and problems within a global context.

Requirements for Degree  21 Units
IS 301 Introduction to Global Studies ...................................................... 3
IS 302 Issues in Global Studies ......................................................... 3
A minimum of 15 units from the following: ........................................... 15
Select five courses from a minimum of four of the following areas:

CULTURE AND SOCIETY
ANTH 310 Cultural Anthropology (3)
HIST 308 History of World Civilizations, 1500 to Present (3)

ECONOMICS
ECON 302 Principles of Macroeconomics (3)
ECON 304 Principles of Microeconomics (3)

HUMANITIES
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)
FREN 411 Intermediate French (4)
FREN 412 Intermediate French (4)
GERM 411 Intermediate German (4)
GERM 412 Intermediate German (4)
ITAL 411 Intermediate Italian (4)
ITAL 412 Intermediate Italian (4)
SPAN 411 Intermediate Spanish (4)
SPAN 412 Intermediate Spanish (4)

POLITICAL SCIENCE
POLS 302 Comparative Politics (3)
POLS 310 Introduction to International Relations (3)

Associate in Arts for Transfer Degree Requirements:
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) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

International Studies Degree

Major Code: 011237A01

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.

Career Opportunities

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.

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.

Requirements for Degree 29 Units

**ANTH 310** Cultural Anthropology (3)

or **ANTH 481** Honors Cultural Anthropology (3)

**ECON 302** 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) .................3

**SOC 300** Introductory Sociology (3) ...............................................................3

or **SOC 480** Introductory Sociology - Honors (3) ...........................................3

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

**IS 301** Introduction to Global Studies (3)

**IS 302** Issues in Global Studies (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

**FREN 401** Elementary French (4)

**FREN 402** Elementary French (4)

**FREN 411** Intermediate French (4)

**FREN 412** Intermediate French (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)

**SPAN 401** Elementary Spanish (4)

**SPAN 402** Elementary Spanish (4)

**SPAN 411** Intermediate Spanish (4)

**SPAN 412** Intermediate Spanish (4)

Associate Degree Requirements: The International Studies AA Degree Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

### International Studies

**IS 301** Introduction to Global Studies 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESWL 340.

General Education: AA/AS Area V(b); CSU Area D

Course Transferable to UC/CSU

Hours: 54 hours LEC

This course introduces an interdisciplinary and multi-dimensional understanding of the process of globalization, including its history, socio-economic, political, and cultural causes and consequences. It focuses on how nation-states are increasingly becoming part of complex interconnected global economic, political, social, cultural, and ecological systems and structures. This course deals with how the actions of one nation state shapes trends and events in other nations. It also deals with how actions and events in one nation create a ripple effect across the globe and the extent to which nation-states are able to maintain a level of national autonomy and national identity within a global system. It utilizes globalization theories to provide a scientific framework for understanding various aspects of globalization including socio-economic, political, cultural, and ecological benefits and costs.

**IS 302** Issues in Global Studies 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESWL 340.

General Education: AA/AS Area V(b); CSU Area D

Course Transferable to UC/CSU

Hours: 54 hours LEC

This course introduces 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 (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.

**IS 305** Introduction to Middle East Studies 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESWL 340.

General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D7; IGETC Area 4G

Course Transferable to UC/CSU

Hours: 54 hours LEC

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 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESWL 340.

General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D7; IGETC Area 4G

Course Transferable to UC/CSU

Hours: 54 hours LEC

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 3 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESWL 340.

General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D7; IGETC Area 4G

Course Transferable to UC/CSU

Hours: 54 hours LEC

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.
Journalism and Mass Communication

Degree

Major Code: 011164A01

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.

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.
- critique his or her own journalistic work and the work of others.
- design and 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 Opportunities

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.

Requirements for Degree

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<th>Requirement</th>
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<tr>
<td>JOUR 300</td>
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<td>JOUR 412</td>
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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)

Associate Degree Requirements: The Journalism and Mass Communication Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Journalism and Mass Communication A.A. for Transfer Degree

Major Code, CSU GE: 011168A01
Major Code, IGETC: 011168A02

The Associate in Arts in Journalism for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

The Associate in Arts in Journalism for Transfer (A.A.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

Students interested in transferring to a CSU campus to pursue a bachelor's degree in Journalism should meet with a counselor to confirm the courses required for lower division preparation in the major.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply principles of audience and journalistic ethics to writing and reporting in print and on-line media.
- analyze content of newspapers, magazines, 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 on-line publication.
- demonstrate understanding of the fundamentals of mass media theories, concepts, and practices as they relate to gender, ethnicity, and cultural constructs.

Career Opportunities

The Journalism AA-T degree prepares students for careers in print, broadcast, and online news media.
### Journalist Requirements

#### Requirements for Degree

18 Units

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>JOUR 300 Newswriting and Reporting</td>
<td>3</td>
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<tr>
<td>JOUR 310 Mass Media and Society</td>
<td>3</td>
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<tr>
<td>JOUR 410 Media Production I</td>
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A minimum of 3 units from the following:

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<th>Course</th>
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<tr>
<td>JOUR 301 Advanced Newswriting and Reporting</td>
<td>3</td>
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<tr>
<td>JOUR 351 Public Relations Writing and Media Techniques</td>
<td>3</td>
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<td>JOUR 360 Photojournalism</td>
<td>3</td>
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<tr>
<td>JOUR 361 Multimedia Journalism</td>
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<tr>
<td>JOUR 411 College Media Production II</td>
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A minimum of 6 units from the following:

<table>
<thead>
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<th>Course</th>
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<tr>
<td>ARTPH 300 Basic Art Photography</td>
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<tr>
<td>ECON 304 Principles of Microeconomics</td>
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<td>or ECON 302 Principles of Macroeconomics</td>
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<td>ENGR 482 Honors Advanced Composition and Critical Thinking</td>
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<td>or ENGR 302 Advanced Composition and Critical Thinking</td>
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<tr>
<td>JOUR 320 Race and Gender in the Media</td>
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<tr>
<td>JOUR 350 Writing for Broadcasting/Podcasting</td>
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<td>POLS 301 Introduction to Government: United States</td>
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<td>or POLS 481 Introduction to Government: United States - Honors</td>
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<tr>
<td>PSYC 330 Introductory Statistics for the Behavioral Sciences</td>
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<td>SPEECH 311 Argumentation and Debate</td>
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<td>SPEECH 361 The Communication Experience</td>
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<td>STAT 300 Introduction to Probability and Statistics</td>
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<tr>
<td>or STAT 301 Statistics and Probability</td>
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<td>or STAT 305 Sativay, Part II</td>
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#### Associate in Arts for Transfer Degree Requirements:

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) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

### Journalism

#### JOUR 300 Newswriting and Reporting

3 Units

**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.

**General Education:** AA/AS Area V(b); CSU Area D4; IGETC Area 4C

**Course Transferable to CSU**

**Hours:** 54 hours LEC

This course covers evaluating, gathering, and writing news in accepted journalistic style for different types of media under newsroom conditions. Topics include personal interviews, along with 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. (C-ID JOUR 110)

#### JOUR 301 Advanced Newswriting and Reporting

3 Units

**Prerequisite:** JOUR 300 with a grade of “C” or better

**Course Transferable to CSU**

**Hours:** 54 hours LEC

This course covers the development of advanced skills of reporting, interviewing, and writing in the range of work handled by a general assignment reporter. It emphasizes in-depth research, critical analysis, and story format. It also introduces feature and editorial writing. (C-ID JOUR 210)

#### JOUR 310 Mass Media and Society

3 Units

**General Education:** AA/AS Area V(b); CSU Area D7; IGETC Area 4

**Course Transferable to UC/CSU**

**Hours:** 54 hours LEC

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 economics, technology, law, ethics, and social issues, including cultural and ethnic diversity. (C-ID JOUR 100)

#### JOUR 320 Race and Gender in the Media

3 Units

**General Education:** AA/AS Area V(b); AA/AS Area VI; CSU Area D3; CSU Area D4; CSU Area D7; IGETC Area 4C

**Course Transferable to UC/CSU**

**Hours:** 54 hours LEC

This course examines the roles of gender, ethnicity, 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 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 and denominator of social change.

#### JOUR 340 Writing for Publication

3 Units

**Advisory:** Eligibility for ENGWR 300 or ESLW 340

**Course Transferable to CSU**

**Hours:** 54 hours LEC

This course introduces writing non-fiction for publication. Emphasis is on analyzing 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

3 Units

**Course Transferable to CSU**

**Hours:** 54 hours LEC

This course introduces the technique of writing for the broadcast media. It includes reporting for radio and television news, writing and storyboard 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

3 Units

**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.

**Course Transferable to CSU**

**Hours:** 54 hours LEC

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. (C-ID JOUR 150)

#### JOUR 360 Photojournalism

3 Units

**Prerequisite:** ARTPH 300 or ARTPH 305 with a grade of “C” or better, or equivalent photo experience as determined by the instructor

**Course Transferable to CSU**

**Hours:** 36 hours LEC; 54 hours LAB

This course is an introduction to the theory and technique of writing for the broadcast media. It includes reporting for radio and television news, writing and storyboard 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 361 Introduction to Government: United States - Honors

3 Units

**Course Transferable to UC/CSU**

**Hours:** 54 hours LEC

This course is an introduction to the theory and technique of writing for the broadcast media. It includes reporting for radio and television news, writing and storyboard 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 361 Multimedia Journalism 3 Units
Prerequisite: JOUR 360 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 the Internet. It provides practical experience in capturing and editing still images, audio, and video with software such as Adobe Photoshop, Audacity, SoundSlides Pro, and Apple's iMovie and Final Cut Pro. A digital, still or video camera is required. (C-ID JOUR 120)

JOUR 404 Editing and Production 3 Units
Advisory: JOUR 300
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Prerequisite: JOUR 300 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course offers hands-on experience in reporting, writing, photography, layout, and online production skills. This course provides preparation for transfer work in journalism or entry-level jobs in the field. (C-ID JOUR 130)

JOUR 411 College Media Production II 3 Units
Prerequisite: JOUR 410 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course builds on experience gained in JOUR 410. It focuses on intermediate writing and production skills, using the school newspaper The American River Current and its online companion www.arcurrent.com, as a practical laboratory. The course provides the opportunity to work in at least two of the following areas: researching, writing, and editing articles for the two publications; taking photographs and creating graphic illustrations; developing multimedia stories; or designing pages. Ethical and legal aspects of communication are also covered. (C-ID JOUR 131)

JOUR 412 College Media Production III 3 Units
Prerequisite: JOUR 411 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course builds on the experience gained in JOUR 411. It focuses on advanced intermediate writing and production skills, using the school newspaper The American River Current and its online companion www.arcurrent.com, 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 two publications; taking photographs and creating graphic illustrations; developing multimedia stories; or designing pages. Ethical and legal aspects of communication are also covered.

JOUR 413 College Media Production IV 3 Units
Prerequisite: JOUR 412 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course builds on the experience gained in JOUR 412. It focuses on advanced writing and production skills, using the school newspaper The American River Current and its online companion www.arcurrent.com, as a practical laboratory. It provides the opportunity to produce work in each of the following areas: researching, writing, and editing advanced and in-depth articles for the two publications; taking photographs and creating graphic illustrations; developing multimedia stories; and designing pages. Ethical and legal aspects of communication and media leadership/management are also covered and students are expected to serve in leadership roles.

JOUR 420 College Media Production Lab I .5-3 Units
Corequisite: JOUR 404 or 410
Course Transferable to CSU
Hours: 27-162 hours LAB
This lab course provides inexperienced journalism students with hands-on instruction in writing, editing, photography, 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 .5-3 Units
Prerequisite: JOUR 420 with a grade of "C" or better
Corequisite: JOUR 404 or 411
Course Transferable to CSU
Hours: 27-162 hours LAB
This lab course provides experienced journalism students with hands-on instruction in writing, editing, photography, design and computer-based publication, as well as instruction in newsroom 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 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
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 TMAC T classes may be taken one time for credit. SPORT classes may be taken four times for credit. The prefixes “ADAPT, DANCE, FITNS, PACT, TMAC T, 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 AND CERTIFICATES**

**Kinesiology A.A. for Transfer Degree**

Major Code, CSU GE: 010422A01
Major Code, IGETC: 010422A02

This Associate in Arts in Kinesiology for Transfer provides a path to students who wish to transfer to a CSU campus in Kinesiology and serves the diverse needs of students who wish to obtain a broad and an in-depth understanding of the field. Additionally, this degree allows students to learn the fundamental principles and practices of Kinesiology in order to create a solid foundation for their future personal and academic endeavors.

The Associate in Arts in Kinesiology for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

The Associate in Arts in Kinesiology for Transfer (A.A.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

**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 Opportunities**

This degree is designed to prepare students for transfer to a four-year college or university in Kinesiology. 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.

**Requirements for Degree**

<table>
<thead>
<tr>
<th>Requirements for Degree</th>
<th>24 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 430 Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 431 Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>KINES 300 Introduction to Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of 8 units from the following:</td>
<td>8</td>
</tr>
<tr>
<td>BIOL 310 General Biology</td>
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</tr>
<tr>
<td>CHEM 400 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>or CHEM 305 Introduction to Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>or CHEM 309 Integrated General, Organic, and Biological Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 410 Mechanics of Solids and Fluids</td>
<td>5</td>
</tr>
<tr>
<td>or PHYS 350 General Physics</td>
<td>4</td>
</tr>
<tr>
<td>STAT 300 Introduction to Probability and Statistics</td>
<td>4</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
<td>3</td>
</tr>
<tr>
<td>Select three courses, each from a different category listed below.</td>
<td></td>
</tr>
<tr>
<td>Dance:</td>
<td></td>
</tr>
<tr>
<td>DANCE 340 Ballroom Dance</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 341 Ballroom Dance II</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 342 Ballroom Dance III: Club Dancing</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 343 Ballroom Dance IV: Latin</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 344 Ballroom Dance V: Swing</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 345 Ballroom Dance VI: Tango</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 348 Ballroom Challenge: Competition and Performance</td>
<td>1</td>
</tr>
</tbody>
</table>

(continued on next page)
**KINESIOLOGY & ATHLETICS**

### Kinesiology A.A. for Transfer Degree continued

**Fitness:**
- FITNS 303 Dance Aerobics (1)
- FITNS 306 Aerobics: Cardio-Kickboxing (1)
- FITNS 307 Aerobic Mix (1)
- FITNS 308 Step Aerobics (1)
- FITNS 321 Core Conditioning (1)
- FITNS 325 Pilates (1)
- FITNS 380 Circuit Weight Training (1)
- FITNS 381 Weight Training (1)
- FITNS 392 Yoga (1)
- FITNS 400 Body Fitness (Walking or Jogging) (1)

**Aquatics:**
- FITNS 310 Aquatic Fitness I (1)
- FITNS 316 Lap Swimming I (1)
- FITNS 440 Swimming I (1)
- FITNS 441 Swimming II (1)
- FITNS 442 Swimming III (1)
- FITNS 443 Swimming IV (1)

**Combatives:**
- FITNS 412 Taekwondo (1)
- FITNS 414 Tai Chi (1)

**Individual Sports:**
- PACT 300 Archery I (1)
- PACT 310 Badminton I (1)
- PACT 350 Golf I (1)
- PACT 351 Golf II (1)
- PACT 390 Tennis I (1)

**Team Sports:**
- TMACT 300 Soccer, Indoor (1)
- TMACT 302 Soccer - Outdoor (1)
- TMACT 320 Basketball (1)
- TMACT 330 Volleyball I (1)
- TMACT 331 Volleyball II (1)
- TMACT 333 Volleyball III (1)
- TMACT 352 Softball, Slow Pitch (1)
- TMACT 370 Water Polo (1)

**Associate in Arts for Transfer Degree Requirements:**

The Associate in Arts in Kinesiology for Transfer (AA-T) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC student for transfer to four-year colleges and universities.

### Physical Education Degree

**Major Code:** 010997A01

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.

**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 Opportunities

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.

### Requirements for Degree 19 - 20.5 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 300</td>
<td>The Foundations of Biology (3)</td>
</tr>
<tr>
<td>BIOL 310</td>
<td>General Biology (4)</td>
</tr>
<tr>
<td>PSYC 310</td>
<td>Biological Psychology (3)</td>
</tr>
<tr>
<td>HEED 310</td>
<td>Community CPR and Adult AED (1)</td>
</tr>
<tr>
<td>HEED 311</td>
<td>CPR and Pediatric First Aid (1.5)</td>
</tr>
<tr>
<td>KINES 300</td>
<td>Introduction to Kinesiology</td>
</tr>
<tr>
<td>KINES 330</td>
<td>Care and Prevention of Athletic Injuries</td>
</tr>
<tr>
<td>NUTRI 300</td>
<td>Nutrition (3)</td>
</tr>
<tr>
<td>NUTRI 302</td>
<td>Nutrition for Physical Performance (3)</td>
</tr>
<tr>
<td>PSYC 300</td>
<td>General Principles (3)</td>
</tr>
<tr>
<td>PSYC 305</td>
<td>Psychology Applied to Modern Life (3)</td>
</tr>
<tr>
<td>KINES 307</td>
<td>Mental Skills for Sport Performance (3)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEED 300</td>
<td>Health Science (3)</td>
</tr>
</tbody>
</table>

OR three units from any of the following: DANCE, FITNS, PACT, SPORT, or TMACT

If a 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.

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

### Sports Medicine Degree

**Major Code:** 010996A01

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.

**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.

Requirements for Certificate 19 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINES 400</td>
<td>Applied Physiology of Exercise</td>
<td>2</td>
</tr>
<tr>
<td>KINES 401</td>
<td>Applied Kinesiology</td>
<td>2</td>
</tr>
<tr>
<td>KINES 402</td>
<td>Nutrition for Fitness (2)</td>
<td>2</td>
</tr>
<tr>
<td>or NUTRI 307</td>
<td>Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>KINES 403</td>
<td>Identification and Management of Fitness Injuries</td>
<td>2</td>
</tr>
<tr>
<td>KINES 405</td>
<td>Effects of Exercise on Special Populations</td>
<td>2</td>
</tr>
<tr>
<td>KINES 406</td>
<td>Techniques of Strength Training Instruction</td>
<td>2</td>
</tr>
<tr>
<td>KINES 407</td>
<td>Techniques of Group Fitness Instruction</td>
<td>2</td>
</tr>
<tr>
<td>KINES 408</td>
<td>Administration of Fitness Programs</td>
<td>2</td>
</tr>
</tbody>
</table>

A minimum of 1 unit from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEXP 498</td>
<td>Work Experience in (Subject)</td>
<td>1</td>
</tr>
</tbody>
</table>

**DEPARTMENT CERTIFICATE**

**Senior Fitness Certificate**

This program prepares students for employment as a fitness leader for seniors and equips them with the knowledge and hands-on experience necessary to begin a career in the growing field of fitness for older adults.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:
• recommend beneficial exercises for seniors and individuals with disabilities or medical conditions.
• design and lead a group exercise activity, and provide modifications and variations to exercises when necessary.
• identify basic principles of body mechanics and posture.
• design an individualized exercise prescription program that includes muscular strength and muscular endurance development.
• explain the normal aging changes and analyze how lifestyle choices influence the aging process.
• demonstrate Validation techniques.

**Career Opportunities**

The senior fitness certificate program is ideal for anyone desiring an entry-level position as a fitness leader for seniors in a recreation center, senior center, senior community, assisted living facility, or another site for seniors.

Requirements for Certificate 16 units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITNS 351</td>
<td>Exercise, Balance and Mobility</td>
<td>1</td>
</tr>
<tr>
<td>GERON 205</td>
<td>Validation: Theory and Practice</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 230</td>
<td>Motivating Older Adults to Stay Active</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 302</td>
<td>Psychology of Aging: Adult Development and Aging</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 374</td>
<td>Psychology of Aging: Adult Development and Aging</td>
<td>3</td>
</tr>
<tr>
<td>GERON 378</td>
<td>Body Mechanics and Safety</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 380</td>
<td>Nutrition and Aging</td>
<td>0.5</td>
</tr>
<tr>
<td>HEED 310</td>
<td>Community CPR and Adult AED</td>
<td>1</td>
</tr>
<tr>
<td>KINES 403</td>
<td>Fitness and Exercise Assessment</td>
<td>2</td>
</tr>
<tr>
<td>KINES 405</td>
<td>Effects of Exercise on Special Populations</td>
<td>2</td>
</tr>
<tr>
<td>KINES 406</td>
<td>Techniques of Strength Training Instruction</td>
<td>2</td>
</tr>
<tr>
<td>KINES 407</td>
<td>Techniques of Group Fitness Instruction</td>
<td>2</td>
</tr>
<tr>
<td>KINES 408</td>
<td>Administration of Fitness Programs</td>
<td>2</td>
</tr>
</tbody>
</table>

A minimum of 1 unit from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEXP 498</td>
<td>Work Experience in (Subject)</td>
<td>1</td>
</tr>
</tbody>
</table>

*One unit of work experience is required in one of the following environments: recreation center, senior center, senior community, assisted living facility, or another site for seniors.
ADAPT 310 Adapted Lifetime Sports 1 Unit
Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
General Education: AA/AS Area III(a) (effective Summer 2018); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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. Students must have a physician’s statement indicating (a) the disability, (b) specific restrictions, and (c) recommended activities.

ADAPT 330 Adapted Weight Training and Fitness 1 Unit
Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is designed for students who are unable to participate in a general physical education activity course. It includes individualized physical fitness programs including activities to develop muscular strength, flexibility, and cardiovascular endurance.

ADAPT 332 Adapted Aquatics 1 Unit
Enrollment Limitation: A physician’s statement verifying the disability, contraindications, and recommended activities
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is designed for students with a disabilities. It includes group and individual yoga activities that emphasize breathing, stretching, and relaxation techniques. Students must have a physician’s statement indicating (a) the disability, (b) specific restrictions, and (c) recommended activities.

ADAPT 337 Adapted Walk and Wheel 1 Unit
Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Advisory: Eligible for ENGRD 310 or 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: A physician’s statement verifying the disability, contraindications and recommended activities.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
**Fitness**

**FITNS 100 Utility Workforce Wellness**  1 Unit  
Corequisite: PREAP 122  
General Education: AA/AS Area III(a)  
Hours: 9 hours LEC; 27 hours LAB  
This course covers health and physical fitness related to utility worker occupations. Exercise programs are designed to improve specific muscle groups impacted in the occupational setting.

**FITNS 101 Green Technology Workforce Wellness**  1 Unit  
Corequisite: PREAP 141  
General Education: AA/AS Area III(a)  
Hours: 9 hours LEC; 27 hours LAB  
This course covers health and physical fitness related to green technology workforce occupations. Exercise programs are designed to improve specific muscle groups impacted in the occupational setting.

**FITNS 102 Infrastructure Workforce Wellness**  1 Unit  
Corequisite: PREAP 111  
General Education: AA/AS Area III(a)  
Course Transferable to CSU  
Hours: 9 hours LEC; 27 hours LAB  
This course covers health and physical fitness related to general construction. Exercise programs are designed to improve specific muscle groups impacted in the occupational setting.

**FITNS 302 Latin Aerobics**  1 Unit  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESR 340 AND ESLW 340  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  1 Unit  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course promotes cardiovascular fitness and endurance through aerobic dance movement. It encourages core strength and flexibility with strength and toning exercises. The importance of taking individual pulse rates is studied, and basic nutrition, health, and safety issues are discussed.

**FITNS 304 Cardio Circuit**  1 Unit  
Course Transferable to CSU  
Hours: 54 hours LAB  
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**  1 Unit  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  1 Unit  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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 facts.

**FITNS 308 Step Aerobics**  1 Unit  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  1 Unit  
Course Family: Aerobic Water Fitness  
(see page 38 - limitation on active participatory courses)  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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 312 Aquatic Fitness**  1 Unit  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This is a self-paced “overload” method of training using a workout approach that stresses aerobic and anaerobic fitness. Deep and shallow water running is emphasized. Stroke efficiency and lap swimming are also included.

**FITNS 314 Aquatic Fitness III-Deep Water Jogging**  1 Unit  
Course Family: Aerobic Water Fitness  
(see page 38 - limitation on active participatory courses)  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESR 340 AND ESLW 340  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  1 Unit  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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  1 Unit  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course incorporates a variety of activities including exercises with the stability ball, Bosu ball, and Pilates mat, and yoga styles of core work to enhance abdominal, lower back, gluteal, and hip strength with toning benefits to the entire body.

FITNS 324 Mat Pilates  1 Unit  
Course Transferable to CSU  
Hours: 54 hours LAB  
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 326 Mat Pilates II  1 Unit  
Prerequisite: FITNS 324 with a grade of “C” or better  
Course Transferable to CSU  
Hours: 54 hours LAB  
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 Fitness  1 Unit  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300 OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This is an intense boot camp fitness course conducted on and off campus using indoor and outdoor facilities. It includes aerobic and anaerobic conditioning, strength and endurance training, and individual and team fitness concepts.

FITNS 332 Off Season Conditioning  .5-1 Units  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course involves sport specific training, conditioning and movement techniques for the intercollegiate off-season athlete. There is a concentration of basic concepts with emphasis on conditioning. This course may be taken three times for credit.

FITNS 339 Multi Sport Training for Fitness  1 Unit  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course covers multi-sport training, including swimming, biking (stationary and non-stationary), and running. Topics include transitional techniques for duathlons and triathlons. Some class sessions meet off-campus. Students must supply their own road or mountain bike and helmet.

FITNS 343 Spin Bike  1 Unit  
General Education: AA/AS Area III(a) (effective Summer 2018); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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  1 Unit  
Course Family: Dynamic Fitness  
(see page 38 - limitation on active participatory courses)  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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  1 Unit  
Course Family: Dynamic Fitness  
(see page 38 - limitation on active participatory courses)  
Advisory: FITNS 344  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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  1 Unit  
Course Family: Dynamic Fitness  
(see page 38 - limitation on active participatory courses)  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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  1 Unit  
Course Family: Dynamic Fitness  
(see page 38 - limitation on active participatory courses)  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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  1 Unit  
Course Transferable to CSU  
Course Family: Dynamic Fitness  
(see page 38 - limitation on active participatory courses)  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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 2 Units
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course encourages a healthy attitude toward exercise, wellness, and weight management. 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. Field trips may be required.

FITNS 351  Exercise, Balance and Mobility 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course meets the needs of students who wish to start an individualized exercise program at a modified level. 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 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course emphasizes the mind/body connection through techniques of visualization, affirmation, concentration, and body movements.

FITNS 380  Circuit Weight Training 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 385  Weight Training for Competition 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 392  Yoga 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course in Yoga emphasizes breathing, stretching, and relaxing techniques. Yoga positions and philosophies are examined.

FITNS 393  Yoga II 1 Unit
Prerequisite: FITNS 392 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LAB
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 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 400  Body Fitness (Walking or Jogging) 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 412  Taekwondo I 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is an introduction to basic Taekwondo skills which include stances, blocking, striking, kicking, poomsae, and self-defense techniques. Conditioning exercises are used to increase strength, flexibility, aerobic, and anaerobic fitness. Martial arts etiquette and traditions are taught and emphasized. Field trips may be required.

FITNS 414  Tai Chi 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 416  Taekwondo II 1 Unit
Course Transferable to CSU
Hours: 54 hours LAB
This course provides instruction in intermediate level of Taekwondo. Aerobic, anaerobic, and plyometric training drills are employed to increase students strength, speed, and agility. More complex footwork, one-step sparring, paddle drills, and free sparring combinations are introduced. Intermediate level poomsae is practiced in addition to basic competition training in both sparring and poomsae. Field trips may be required.
FITNS 417 Taekwondo III 1 Unit
Course Transferable to CSU
Hours: 54 hours LAB
This course provides instruction in advanced level of Taekwondo. A higher level of aerobic, anaerobic, and plyometric training drills are employed to increase student’s strength, speed, agility, and competitiveness. It also introduces Kyupka (demonstration of power) and a higher level of poomsae. Sparring strategies, ring management, and other skills associated with being successful at this advanced level are taught. Field trips may be required.

FITNS 440 Swimming I 1 Unit
Course Family: Swimming
(see page 38 - limitation on active participatory courses)
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.
General Education: AAAS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is offered as beginning, intermediate, or advanced swimming. Beginning swimming covers basic water acclimation, water safety, and introductory skills in freestyle and backstroke. Intermediate swimming covers refined freestyle and backstroke, and introduces breaststroke and butterfly. Advanced swimming further refines freestyle, backstroke, breaststroke and butterfly and also introduces individual medley, touch turns, flip turns, and starts. In addition, various aerobic and anaerobic training methods are taught. Endurance and stroke efficiency are emphasized.

FITNS 441 Swimming II 1 Unit
Course Family: Swimming
(see page 38 - limitation on active participatory courses)
Advisory: Student must demonstrate comfort and confidence in the water and in their ability to demonstrate submersion, front float, and back float. This course is taught in deep water.
General Education: AAAS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is designed for beginning swimmers with limited skills. Topics include mastery of basic water adjustment skills, floats, glides, streamline, freestyle, and backstroke techniques. This course is appropriate for those who are uncomfortable in deep water or those who need to refine their ability to swim 25 yards without stopping.

FITNS 442 Swimming III 1 Unit
Course Family: Swimming
(see page 38 - limitation on active participatory courses)
Advisory: FITNS 441
General Education: AAAS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Swimming
(see page 38 - limitation on active participatory courses)
Advisory: FITNS 442
General Education: AAAS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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. Field trips may be required.

FITNS 444 Personal Safety 1 Unit
General Education: AAAS Area III(a)
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1-3 Units
General Education: AAAS Area III(a)
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.

KINESIOLOGY & ATHLETICS

KINES 300 Introduction to Kinesiology 3 Units
General Education: AAAS Area III(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

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KINES 307 Mental Skills for Sport Performance 3 Units
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.
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. This course is formerly known as PET 307.
KINES 330 Care and Prevention of Athletic Injuries 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to injury prevention, injury care, and rehabilitation of athletic injuries. It includes basic information regarding sports injuries, their causes, and treatments. This course is formerly known as PET 330.

KINES 334 Practical Applications in Athletic Training/Sports Medicine 3 Units
Corequisite: KINES 330
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 340 Theory of Baseball 1 Unit
Advisory: High school or college level baseball playing experience; 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.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course develops a thorough understanding of baseball. The emphasis is on learning and understanding basic concepts of training, individual techniques, strategies, and systems of defense, offense, pitching, base running, and field maintenance. Philosophies and drills are included.

KINES 350 Theory of Football 1 Unit
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course covers applications of different strategies when football teams face various schemes. This course is formerly known as PET 350.

KINES 356 Theory of Softball 1 Unit
Advisory: ENGRD 310 and ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course develops advanced analysis of softball. Focus is placed on analysis and instruction of individual skills and team concepts. Specific areas of emphasis include, but are not limited to, practice organization, individual fundamentals, team building fundamentals, as well as drills to develop these skills. The analysis of various coaching techniques, theories, and philosophy are included.

KINES 400 Applied Physiology of Exercise 2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course examines how the body functions under conditions of exercise stress. It covers the practical applications of muscle function, cardiovascular and respiratory functions, training techniques, and the effect of environmental conditions on exercise. This course is formerly known as PET 400.

KINES 401 Applied Kinesiology 2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course addresses movement as it relates to exercise. It includes analysis of movement in sport skills, stressing the contributions made by the muscular and skeletal systems.
KINES 408 Administration of Fitness Programs 2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course serves as an introduction to the administration of fitness programs. It includes business operations, office procedures, facility design, and equipment considerations. Field trips may be required. This course is formerly known as PET 408.

KINES 495 Independent Studies in Physical Education Theory 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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 catalog course. 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 Physical Education 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRD 312
AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to physical education with a cooperating site supervisor. Students are advised to consult with the Physical Education Department faculty to review specific certificate and degree work experience requirements.
General Education: AAAS Area III(a)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.

Personal Activity

PACT 300 Archery I 1 Unit
Course Family: Archery
(see page 38 - limitation on active participatory courses)
General Education: AAAS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Badminton
(see page 38 - limitation on active participatory courses)
General Education: AAAS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Badminton
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: PACT 310 with a grade of "C" or better OR PACT 350 with a grade of "C" or better
General Education: AAAS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Golf
(see page 38 - limitation on active participatory courses)
General Education: AAAS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This beginning golf 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 sections of this course may be held on regulation golf courses to which students must bring their own golf clubs and pay for range costs and/or greens fees.

PACT 351 Golf II 1 Unit
Course Family: Golf
(see page 38 - limitation on active participatory courses)
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 and etiquette needed to play golf on a course.
General Education: AAAS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 sections 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.
PACT 392 Golf III 1 Unit
Course Family: Golf
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: PACT 351 (Golf II) or experience playing on a
golf course.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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. This course is held on area regulation golf courses in which
students must bring their own golf clubs, pay greens fees, and/or
range costs.

PACT 390 Tennis I 1 Unit
Course Family: Tennis
(see page 38 - limitation on active participatory courses)
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course covers basic technique of strokes, rules of play, simple
strategies, and the etiquette of tennis.

PACT 391 Tennis II 1 Unit
Course Family: Tennis
(see page 38 - limitation on active participatory courses)
Advisory: PACT 390
General Education: AA/AS Area III(a) (effective Summer 2016); CSU
Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course reviews basic fundamentals, techniques, rules, and social
courtesies of tennis. It is intended for intermediate-level tennis
players.

PACT 393 Tennis III 1 Unit
Course Family: Tennis
(see page 38 - limitation on active participatory courses)
Advisory: PACT 391
General Education: AA/AS Area III(a) (effective Summer 2016); CSU
Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 394 Tennis, Doubles 1 Unit
Prerequisite: PACT 390 with a grade of "C" or better
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course provides instruction for intermediate and advanced
players in competitive doubles tennis. Game tactics and skills
development are emphasized.

PACT 430 Pickleball I 1 Unit
Course Family: Pickleball
(see page 38 - limitation on active participatory courses)
Course Transferable to CSU
Hours: 54 hours LAB
This course covers basic technique of strokes, rules of play, simple
strategies, and the etiquette of pickleball.

PACT 431 Pickleball II 1 Unit
Course Family: Pickleball
(see page 38 - limitation on active participatory courses)
Course Transferable to CSU
Hours: 54 hours LAB
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 1 Unit
Course Family: Pickleball
(see page 38 - limitation on active participatory courses)
Course Transferable to CSU
Hours: 54 hours LAB
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 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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 300 Baseball, Intercollegiate-Men 3 Units
Prerequisite: At least one year of high school varsity baseball or equivalent
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 175 hours LAB
This course provides 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 .5-3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
This course is designed to optimize sports performance and reduce
risk of injury for the off-season intercollegiate athlete in the sport of
baseball. Course content 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 303 Pre-Season Conditioning for Baseball**  
*.5-3 Units*
Course Transferable to UC/CSU  
Hours: 27-162 hours LAB

This course is designed to optimize sports performance and reduce risk of injury for the pre-season intercollegiate athlete in the sport of baseball. Course content includes sport-specific skill development, sport-specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course may be taken up to four times for credit.

**SPORT 311 Basketball, Intercollegiate-Men, Fall**  
*.5-3 Units*
Advisory: 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.
Enrollment Limitation: Tryout  
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 87 hours LAB

This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition. May be taken three times for credit.

**SPORT 312 Basketball, Intercollegiate-Men, Spring**  
*.5-3 Units*
Advisory: 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.
Enrollment Limitation: Tryout  
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 87 hours LAB

This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition. May be taken three times for credit.

**SPORT 313 Off Season Conditioning for Basketball**  
*.5-3 Units*
Enrollment Limitation: Tryout.  
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 27-162 hours LAB

This course is designed to optimize sports performance and reduce risk of injury for the off-season intercollegiate athlete in the sport of 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**  
*.5-3 Units*
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 27-162 hours LAB

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 4 times for credit.

**SPORT 315 Basketball, Intercollegiate-Men, Fall**  
*.5-3 Units*
Advisory: ENWR 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.
Enrollment Limitation: Tryout  
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 175 hours LAB

This course is an intercollegiate sport providing opportunity for men’s basketball. 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 316 Basketball, Intercollegiate-Women, Fall**  
*.5-3 Units*
Advisory: 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.
Enrollment Limitation: Tryout  
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 87 hours LAB

This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition. May be taken three times for credit.

**SPORT 317 Basketball, Intercollegiate-Women, Spring**  
*.5-3 Units*
Advisory: 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.
Enrollment Limitation: Tryout  
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 87 hours LAB

This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition. May be taken three times for credit.

**SPORT 320 Cross Country, Intercollegiate-Men**  
*.5-3 Units*
Enrollment Limitation: Tryout  
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 175 hours LAB

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 325 Cross Country, Intercollegiate-Women**  
*.5-3 Units*
Enrollment Limitation: Tryout  
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 175 hours LAB

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 330 Football, Intercollegiate-Men**  
*.5-3 Units*
Enrollment Limitation: Tryout  
General Education: AAAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 175 hours LAB

This course is an intercollegiate sport providing opportunity for 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 .5-3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 .5-3 Units
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 340 Golf, Intercollegiate-Men 3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 175 hours LAB
This course provides opportunity for competition in men's golf. It covers golf fundamentals and skills. 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 341 Off Season Conditioning for Golf .5-3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
This course involves a combination of fundamental skills and strategy with an emphasis on a fitness component for the sport of golf. It offers a mental training component for peak performance. This course is designed to prepare students for intercollegiate golf competition. This course may be taken up to four times for credit.

SPORT 345 Golf, Intercollegiate-Women 3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 175 hours LAB
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. This course may be taken up to four times for credit.

SPORT 350 Soccer, Intercollegiate-Men 3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 175 hours LAB
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 .5-3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 175 hours LAB
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 1-3 Units
Enrollment Limitation: Tryout.
General Education: CSU Area E2
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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 .5-3 Units
Enrollment Limitation: Tryout
General Education: CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 175 hours LAB
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 .5-3 Units
Enrollment Limitation: Tryout.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
This course covers basic 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.
**KINESIOLOGY & ATHLETICS**

**SPORT 368 Pre-Season Conditioning for Softball**

*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 27 hours LAB*

This course is designed to optimize sports performance and reduce the risk of injury for the pre-season intercollegiate athlete in the sport of softball. Course content includes softball fundamental skills development, strength training, cardiovascular conditioning, agility, plyometric, speed training, and flexibility exercises. This course may be taken up to four times for credit.

**SPORT 370 Swimming and Diving, Intercollegiate-Men**

*Enrollment Limitation: Tryout*  
*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 175 hours LAB*

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**

*Enrollment Limitation: Tryout*  
*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 175 hours LAB*

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**

*Enrollment Limitation: Try out. This course is designed for athletes on the swim and dive team.*  
*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 27-162 hours LAB*

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**

*Enrollment Limitation: Try out*  
*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 27-162 hours LAB*

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**

*Advisory: ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better.*  
*Enrollment Limitation: Tryout*  
*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 175 hours LAB*

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**

*Advisory: ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better.*  
*Enrollment Limitation: Tryout*  
*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 175 hours LAB*

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**

*Enrollment Limitation: Two years of varsity high school experience or equivalent. Tryout required.*  
*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 27-162 hours LAB*

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**

*Enrollment Limitation: Tryout*  
*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 175 hours LAB*

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**

*Enrollment Limitation: Tryout*  
*General Education: AA/AS Area III(a); CSU Area E2*  
*Course Transferable to UC/CSU*  
*Hours: 175 hours LAB*

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 .5-3 Units
Enrollment Limitation: Tryout required.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 .5-3 Units
General Education: AA/AS Area III(a) (effective Summer 2016); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 175 hours LAB
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 .5-3 Units
Enrollment Limitation: Tryout.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 410 Water Polo, Intercollegiate-Men 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312
AND ENGRD 320; OR ENGRD 330 AND ENGRD 331.
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 175 hours LAB
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 3 Units
Enrollment Limitation: Tryout
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 175 hours LAB
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 .5-3 Units
Enrollment Limitation: Tryout.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 .5-3 Units
Enrollment Limitation: Tryout required.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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 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.
**Team Activities**

**TMACT 300 Soccer, Indoor**  
1 Unit  
Course Family: Soccer  
(see page 38 - limitation on active participatory courses)  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  
1 Unit  
Course Family: Soccer  
(see page 38 - limitation on active participatory courses)  
Prerequisite: TMACT 300 with a grade of “C” or better  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  
1 Unit  
Course Family: Soccer  
(see page 38 - limitation on active participatory courses)  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course covers the beginning-level knowledge and skills needed to play outdoor 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 303 Outdoor Soccer II**  
1 Unit  
Course Family: Soccer  
(see page 38 - limitation on active participatory courses)  
Prerequisite: TMACT 302 with a grade of “C” or better  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  
1 Unit  
Course Family: Soccer  
(see page 38 - limitation on active participatory courses)  
Prerequisite: TMACT 303 with a grade of “C” or better  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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 310 Baseball**  
1 Unit  
Prerequisite: Have completed at least one year of varsity high school baseball or equivalent.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course emphasizes defense, offense, pitching, base running, team strategy, and conditioning for college-level, advanced baseball.

**TMACT 320 Basketball**  
1 Unit  
Course Family: Basketball  
(see page 38 - limitation on active participatory courses)  
Advisory: Participation on a high school basketball team  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  
1 Unit  
Course Family: Volleyball  
(see page 38 - limitation on active participatory courses)  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  
1 Unit  
Course Family: Volleyball  
(see page 38 - limitation on active participatory courses)  
Prerequisite: TMACT 330 with a grade of “C” or better  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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**  
1 Unit  
Course Family: Volleyball  
(see page 38 - limitation on active participatory courses)  
Prerequisite: TMACT 331 with a grade of “C” or better  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
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** 1 Unit

*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.*

*General Education: AA/AS Area III(a); CSU Area E2*

*Course Transferable to UC/CSU*

*Hours: 54 hours LAB*

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 352 Softball, Slow Pitch** 1 Unit

*General Education: AA/AS Area III(a); CSU Area E2*

*Course Transferable to UC/CSU*

*Hours: 54 hours LAB*

This course covers the basic softball skills of throwing, catching, pitching, and hitting. Rules and strategies are also covered, including position play and base running.

**TMACT 370 Water Polo** 1 Unit

*Prerequisite: Participants must be able to swim 300 yards freestyle without stopping and have sufficient egg beater and breast-stroke kicks to tread water for 5 minutes.*

*General Education: CSU Area E2*

*Course Transferable to UC/CSU*

*Hours: 54 hours LAB*

This course features tournament-style scrimmage play to improve offensive, defensive, and team skills in water polo.

**TMACT 495 Independent Studies in Team Activities** 1-3 Units

*Prerequisite: None*

*Course Transferable to CSU*

*Hours: 54-162 hours LAB*

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.
The Learning Resource Center (LRC) is a professionally staffed instructional department which provides instructional tutor training courses. The LRC Department advances the vision and mission of American River College by providing supplemental instruction and academic support through individualized and group tutoring modalities to currently enrolled ARC students seeking to successfully achieve their educational goals.

**LRC 300 Introduction to Tutor Training** 1 Unit
**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
**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.
**Course Transferable to CSU**
**Hours:** 18 hours LEC
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 Group Tutoring** 1 Unit
**Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
**Enrollment Limitation:** A grade of B or better in the course to be tutored.
Faculty recommendation to be a Beacon group tutor.
**Course Transferable to CSU**
**Hours:** 18 hours LEC
This course is offered in coordination with the Beacon Tutoring Program at American River College. It introduces the role of the tutor as a facilitator and presents the methods of effective group tutoring. This course emphasizes collaborative and interactive approaches to learning in a group setting. This course is formerly known as INDIS 321.

**LRC 1000 Supervised Tutoring** 0 Units
**Prerequisite:** None
**Corequisite:** Student must be enrolled in a college credit course and be referred by an instructor or counselor.
**Hours:** 500 hours LAB
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.
The Paralegal Studies program at American River College is approved by the American Bar Association. ARC’s Paralegal Studies program has been preparing students for entry-level positions in this profession for over 30 years. ‘Legal assistant’ and ‘paralegal’ are synonymous terms according to California Business & Professions Code (B & P Code) sections 6450-6456. Section 6450 defines a legal assistant as “...a person qualified by education, training, ...is employed by an attorney...or other entity, and who performs substantial legal work under the direction and supervision of an active member of the State Bar of California...”. Paralegals do not provide legal advice. It is unlawful for anyone not currently licensed to practice law in California to give legal advice.

DEGREES AND CERTIFICATES

Paralegal Studies Degree
Major Code: 011166A02
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.

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.

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 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 Opportunities

Career opportunities for paralegals have an excellent outlook. According to the US Department of Labor’s Job Outlook, employment of paralegals is projected to grow 15 percent between 2016 and 2026, faster than the average for all occupations.

Paralegals find employment in both the State and Federal government as well as private practice and corporate settings.

Requirements for Degree 48 Units

And a minimum of 9 units from the following: 9

And a minimum of 18 units from the following: 18

ABA Breadth: Courses from at least three different areas of Areas 1-5B of the Interssegmental General Education Transfer Curriculum (IGETC), excluding performance courses, activity courses, administration of justice courses, and the lab component of science courses.

Associate Degree Requirements: The Legal Assisting Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Paralegal Studies Certificate
Major Code: 011166C02
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. 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.
**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 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.
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- express their thoughts effectively, both orally and in writing, with attorneys and clients.

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### Requirements for Certificate 30 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA 300</td>
<td>Introduction to Law and the American Legal System</td>
<td>3</td>
</tr>
<tr>
<td>LA 310</td>
<td>Civil Procedures and Litigation</td>
<td>3</td>
</tr>
<tr>
<td>LA 312</td>
<td>Torts and Personal Injury</td>
<td>3</td>
</tr>
<tr>
<td>LA 314</td>
<td>Contract Law</td>
<td>3</td>
</tr>
<tr>
<td>LA 320</td>
<td>Legal Research</td>
<td>3</td>
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<tr>
<td>LA 321</td>
<td>Legal Writing</td>
<td>3</td>
</tr>
<tr>
<td>LA 350</td>
<td>Law Office Management</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 9 units from the following:

- LA 322 Advanced Legal Research and Writing (3)
- LA 330 Family Law and Procedure (3)
- LA 332 Administrative Law and Procedure (3)
- LA 334 Criminal Law and Procedure (3)
- LA 342 Evidence (3)
- LA 360 Corporations Law (3)
- LA 362 Estate Planning and Probate Procedure (3)
- LA 364 Landlord Tenant Law (3)
- LA 366 Basic Bankruptcy Law (3)
- LA 368 Workers’ Compensation Law (3)
- LA 495 Independent Studies in Legal Assisting (1 – 3)
- LA 498 Work Experience in Legal Assisting (1 – 4)

### Law Office Clerical Assistant Certificate

**Major Code: 011604C01**

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.

Completion of the Law Office Assistant Certificate does not qualify the holder under California state law as a Legal Assistant or Paralegal.

**Student Learning Outcomes**

Upon completion of this certificate 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 Opportunities**

Typical career opportunities are entry-level non-attorney positions in a law office. In order to earn an A.A. or a Certificate to become a Legal Assistant/Paralegal, see the Legal Assisting Program requirements in the Behavior and Social Sciences Division.

### Requirements for Certificate 15 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 312</td>
<td>Workplace Behavior and Ethics</td>
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<tr>
<td>BUSTEC 100.1</td>
<td>Keyboarding Skills: Beginning (1)</td>
<td>1</td>
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<tr>
<td>or BUSTEC 300.1</td>
<td>Keyboarding/Applications: Beginning (1)</td>
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<tr>
<td>BUSTEC 100.2</td>
<td>Keyboarding Skills: Intermediate (1)</td>
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<tr>
<td>or BUSTEC 300.2</td>
<td>Keyboarding/Applications: Document Formatting (1)</td>
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<tr>
<td>BUSTEC 305</td>
<td>Business Technology Essentials</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>3</td>
</tr>
<tr>
<td>LA 300</td>
<td>Introduction to Law and the American Legal System</td>
<td>3</td>
</tr>
<tr>
<td>LA 350</td>
<td>Law Office Management</td>
<td>3</td>
</tr>
</tbody>
</table>
LA 300 Introduction to Law and the American Legal System 3 Units
Prerequisite: ENGWR 300 or ESLW 340 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the American legal system, its history, and function. It provides an overview of several important areas of law such as torts and crimes and the legal assistant’s role in the system.

LA 310 Civil Procedures and Litigation 3 Units
Corequisite: LA 300
Course Transferable to CSU
Hours: 54 hours LEC
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.

LA 312 Torts and Personal Injury 3 Units
Corequisite: LA 300
Course Transferable to CSU
Hours: 54 hours LEC
This course is an overview of substantive tort law as it applies to personal injury (PI) cases. It introduces tort concepts, such as negligence, intent, and strict liability, including the elements required to prove liability and defenses available to litigants. This course covers pretrial procedures, such as discovery, settlement offers, and witness and trial preparation.

LA 314 Contract Law 3 Units
Corequisite: LA 300
Course Transferable to CSU
Hours: 54 hours LEC
This course covers basic contract principles. Topics include formation, validity, defenses, rights of third parties, performance, breach, remedies, and damages.

LA 320 Legal Research 3 Units
Corequisite: LA 300
Course Transferable to CSU
Hours: 54 hours LEC
This course provides the paralegal with the basic tools of legal research in both federal and California law, with emphasis on California materials. It covers the location and use of primary and secondary sources, the elements of a court decision, and how to brief a case.

LA 321 Legal Writing 3 Units
Prerequisite: LA 320 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
This course is a continuation of LA 320: Legal Research. It includes the application of research methods to gather information which may be used in a variety of written products. It covers synthesizing information into various documents typically used in the law office. Documents created may include interoffice memoranda, court briefs, and letters to clients.

LA 322 Advanced Legal Research and Writing 3 Units
Prerequisite: LA 321 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
This course builds on the research and writing skills covered in LA 320 and LA 321. It focuses on refining legal research, analytical, and writing skills with an emphasis on researching and applying most current codes, rules, and practices pertaining to e-discovery, meta data mining, and other technical issues; it also covers drafting various discovery requests/responses and discovery motions/oppositions and/ or other documents filed in Law and Motion departments relative to electronically stored information. Extensive use of computers and the internet is required.

LA 330 Family Law and Procedure 3 Units
Prerequisite: LA 300 with a grade of "C" or better
Advisory: LA 320
Course Transferable to CSU
Hours: 54 hours LEC
This course covers California Family Law relating to dissolution procedures, property issues, and non-marital relationships. Legal procedures, and preparation of necessary forms and their significance are emphasized.

LA 332 Administrative Law and Procedure 3 Units
Prerequisite: LA 300 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
This course covers administrative law and procedure. Topics include comparison of administrative law to civil and criminal law, and administrative due process.

LA 334 Criminal Law and Procedure 3 Units
Prerequisite: LA 300 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
This course provides background in both substantive crimes and criminal procedure. It includes a detailed study of the operation of the criminal justice system, from arrest and filing of charges through trial, conviction and appeal.

LA 336 Immigration Law 3 Units
Corequisite: LA 300
Course Transferable to CSU
Hours: 54 hours LEC
This course is an elective in the Paralegal Studies program and is designed to prepare students for work in an immigration law setting. Students will learn about the Justice Department, the Labor Department, and the State Department, and how these agencies administer immigration and naturalization laws.

LA 342 Evidence 3 Units
Prerequisite: LA 300 with a grade of "C" or better
Advisory: LA 310
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the rules of evidence in federal and state courts. Topics include Hearsay Rule, Best Evidence Rule, and organizing deposition transcripts.

LA 350 Law Office Management 3 Units
Corequisite: LA 300
Course Transferable to CSU
Hours: 54 hours LEC
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.
LA 360 Corporations Law 3 Units
Prerequisite: LA 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course covers corporation terminology and legal requirements governing corporations. Topics include formation, dissolution and liquidation of a corporation.

LA 362 Estate Planning and Probate Procedure 3 Units
Prerequisite: LA 300 and 320 with grades of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course covers estate planning, including the manner in which property may be held and ways it can be transferred. Testamentary and intestate probate procedures are included.

LA 364 Landlord Tenant Law 3 Units
Prerequisite: LA 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
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.

LA 365 Legal Clinic 3 Units
Prerequisite: LA 300, 310, 320, and 32 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a study of the activities of a legal clinic, including conducting client interviews, participating in legal consultations, performing legal research, and carrying out tasks needed in clinic operations, all under the direct supervision of clinic attorneys. This course also covers research, examinations, and conduct according to the Professional Rules of Responsibility and Ethics.

LA 366 Basic Bankruptcy Law 3 Units
Prerequisite: LA 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to the practical aspects of representing debtors or creditors within the bankruptcy system. Topics include voluntary and involuntary bankruptcy, preparation of statements, and schedules for filing.

LA 368 Workers’ Compensation Law 3 Units
Prerequisite: LA 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course provides an overview of the Workers’ Compensation Law in California. It focuses on the procedural aspects of handling a Workers’ Compensation claim from both the applicant perspective and the defense perspective.

LA 495 Independent Studies in Legal Assisting 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.

LA 498 Work Experience in Legal Assisting 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to legal assisting with a cooperating site supervisor. Students are advised to consult with the Legal Assisting Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
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.

**LIBR 102 Introduction to Library Resources** 1 Unit
*Hours: 18 hours LEC*
This course introduces basic library services and resources. It covers the services and functions of an academic library and includes the skills needed to retrieve information from print and electronic resources using the library catalog, online databases, and the Internet. Access to and use of an academic library are required.

**LIBR 310 Introduction to Genealogy Research** 1 Unit
*General Education: AA/AS Area III(b)*
*Course Transferable to CSU*
*Hours: 18 hours LEC*
This course introduces genealogy research methods utilizing sources dating from colonial times to the present. Topics include evaluating and choosing genealogical resources, developing skills to analyze data, and organizing family history information using print forms or a software program.

**LIBR 318 Library Research and Information Literacy** 1 Unit
*Advisory: CISC 300 with a grade of “C” or better; Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESSLR 340 AND ESSLW 340*
*General Education: AA/AS Area III(b)*
*Course Transferable to UC/CSU*
*Hours: 18 hours LEC*
This course introduces the information competency skills necessary to conduct academic, professional, and personal research. It provides a step-by-step guide to the research process that is applicable to course work, professional work, and life-long learning. It emphasizes effective search strategies, selecting information tools, locating and retrieving information sources, analyzing and critically evaluating information, and using the information in an ethical manner.

**LIBR 320 Introduction to Internet Research** 1 Unit
*Course Transferable to CSU*
*Hours: 18 hours LEC*
This course introduces the use of the Internet for academic research. It covers the scope of information available on the Web, presents various Web search tools, and provides strategies and techniques for locating and evaluating appropriate Web resources. This course also explores social and ethical issues concerning the Internet.

**LIBR 325 Internet Research Skills** 3 Units
*Advisory: CISC 300; and eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESSLR 340 AND ESSLW 340*
*General Education: AA/AS Area III(b)*
*Course Transferable to UC/CSU*
*Hours: 54 hours LEC*
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.
Area: Business & Computer Science
Dean: Kirsten Corbin
Phone: (916) 484-8361
Counseling: (916) 484-8572

Degrees: A.A. - Management
A.A. - Leadership

Certificates: Conflict Management
Leadership
Introduction to Leadership in Action
Project Management

Department Certificates:
Leadership in Action: Organizational Learning
Leadership in Action: Organizational Systems
Leadership in Action: Organizational Teams
Leadership in Action: Organizational Variation

DEGREES AND CERTIFICATES

Management Degree
Major Code: 011170A01
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.

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.

Requirements for Degree 24 Units
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
MGMT 362 Techniques of Management .......................................................... 3
MGMT 372 Human Relations and Organizational Behavior............................. 3
And a minimum of 6 units from the following: ..................................................... 6
BUS 340 Business Law (3)
CISA 306 Intermediate Word Processing (2)
CISA 308 Exploring Word Processing and Presentation Software (1)
CISA 316 Intermediate Electronic Spreadsheets (2)
CISA 318 Exploring Spreadsheet Software (1)
CISA 340 Presentation Graphics (2)
MGMT 142 Project Management Techniques and Software (3)

Management Certificate
Major Code: 011170C01
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.

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.

Requirements for Certificate 15 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

Leadership Degree
Major Code: 011173A01
The Leadership degree program centers around the leadership and management functions essential to building world class organizations. It focuses on the design of effective organizational systems and includes customer service, effective planning, statistical analysis, teamwork, and leadership. It also includes systems design, development, measurement, and improvement. Additionally, it examines the study of physics, statistics, ethics, business communications, and organizational psychology.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• define the underlying principles and practices of leadership both personally and professionally.
• construct a systems approach to work, providing fundamental systems diagrams, flow charts, and functional methodologies for improvement.
• apply organizational strategies to ensure management functions are focused on the customer and measured for efficiency and effectiveness.
• analyze the relationship between leading and managing with an understanding of leadership styles and issues.
• develop team-centered corporate cultures to enhance organizational success.
• measure the importance of operations management in relationship to designing effective control procedures that evolve into a continual improvement approach to production strategies.

**Requirements for Degree** 24 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MGMT 300</td>
<td>Introduction to Leadership in Action</td>
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<tr>
<td>MGMT 320</td>
<td>Leadership in Action: Organizational Variation</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 330</td>
<td>Leadership in Action: Organizational Teams</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 340</td>
<td>Leadership in Action: Organizational Systems</td>
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<tr>
<td>MGMT 350</td>
<td>Leadership in Action: Organizational Learning</td>
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<td>Leadership in Action: Organizational Learning</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3</td>
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</table>

**Leadership Certificate**

**Major Code:** 011173C01

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.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

• describe the underlying principles and practices of leadership
• construct a systems approach to work using fundamental systems diagrams, flow charts, and functional methodologies for improvement.
• 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.

See losrios.edu/gainful-emp-info/gedt.php?major=011173C01 for Gainful Employment Disclosure.

**Requirements for Certificate** 24 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MGMT 342</td>
<td>Project Management Techniques and Software</td>
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<tr>
<td>MGMT 300</td>
<td>Introduction to Leadership in Action</td>
<td>3</td>
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<tr>
<td>MGMT 320</td>
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<td>Leadership in Action: Organizational Teams</td>
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<td>MGMT 340</td>
<td>Leadership in Action: Organizational Systems</td>
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<tr>
<td>MGMT 350</td>
<td>Leadership in Action: Organizational Learning</td>
<td>3</td>
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<tr>
<td>MGMT 374</td>
<td>Social Responsibility and Ethics in Management</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Conflict Management Certificate**

**Major Code:** 011118C01

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.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

• explain and assess the role personality and negotiating temperaments 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.

**Requirements for Certificate** 12 Units

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>BUS 317</td>
<td>Managing Workplace Conflict</td>
<td>3</td>
</tr>
<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 308</td>
<td>Personnel and Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</td>
<td>Human Relations and Organizational Behavior</td>
<td>3</td>
</tr>
</tbody>
</table>
Project Management Certificate  
Major Code: 011169C01  
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.

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 Opportunities  
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.

Requirements for Certificate  
12 - 13 Units  
ACCT 101 Fundamentals of College Accounting (3) ................... 3 - 4  
or ACCT 301 Financial Accounting (4) ...................... 3  
BUS 300 Introduction to Business ............................................. 3  
MGMT 142 Project Management Techniques and Software (3) ........ 3  
or CISA 160 Project Management Techniques and Software (3) ........ 3  
MGMT 304 Principles of Management ........................................... 3  

DEPARTMENT CERTIFICATES  
Leadership in Action:  
Organizational Learning Certificate  
This certificate centers on the basic business systems and the practical application of the tools of systems thinking. It focuses on the principles of Profound Knowledge as it relates to the planning processes of organizations, the manager’s ability to design and implement effective systems to the prediction of the strategic plans, and the measurement of the output and outcomes on overall effectiveness.

Student Learning Outcomes  
Upon completion of this program, the student will be able to:  
• appraise organizational progress with the tools of Essential Process Analysis (EPA) to revise and design the delivery of organizational products and services.  
• explore human capabilities of systems’ members.  
• apply the theories of Emotional Intelligence at work.  
• use the tools of information management to explore patterns in systems thinking.

Requirements for Certificate  
9 Units  
MGMT 300 Introduction to Leadership in Action ......................... 3  
MGMT 330 Leadership in Action: Organizational Learning ............... 3  
MGMT 374 Social Responsibility and Ethics in Management .............. 3  

Leadership in Action:  
Organizational Systems Certificate  
This certificate focuses on the holistic nature of life and examines organizations from this foundational perspective. It centers on the design, implementation and measurement of systems that carry out predefined actions as a result of anticipated events, identifies the nature of imperfect implementation technology and describes how system limitations complicate organizational progress.

Student Learning Outcomes  
Upon completion of this program, the student will be able to:  
• evaluate the defining factors of a system by determining the purpose of the system, the events to which it must respond, its fundamental activities and the formation of both current and past events that the system must store in order to carry out its responses to establish and maintain system integrity.  
• construct systems models of organizational processes specific to the individual’s work for the purpose of performance measurement and improvement.  
• analyze the functionality of systems design in relationship to overall product output, organizational productivity and customer satisfaction.

Requirements for Certificate  
9 Units  
MGMT 300 Introduction to Leadership in Action ......................... 3  
MGMT 340 Leadership in Action: Organizational Systems ............... 3  
PHYS 310 Conceptual Physics .................................................. 3  

Leadership in Action:  
Organizational Teams Certificate  
This certificate centers around the elements of human psychology as it relates to organizational groups, work teams and self-managed teams. It provides a framework of individual self-study as it relates to interacting with others. Furthermore, it includes the design, development and implementation of high performance teams to maximize organizational success.

Student Learning Outcomes  
Upon completion of this program, the student will be able to:  
• analyze the important aspects of group behavior and team process in relationship to individual psychological variance.  
• identify the organizational and social benefits of group and team formation and the four stages of their development: forming, storming, norming and performing.  
• measure the utilization and effectiveness of empowerment, teamwork and self-managed teams from a task and maintenance function perspective in teams as it relates to organizational success.  
• apply team empowerment concepts relative to organizational effectiveness.

Requirements for Certificate  
6 Units  
MGMT 300 Introduction to Leadership in Action ......................... 3  
MGMT 330 Leadership in Action: Organizational Teams ............... 3
**Leadership in Action: Organizational Variation Certificate**

This certificate centers on the importance of statistical knowledge of variation, variation patterns and the methodology and use of statistical tools to assist managers with the measurement and improvement of organizational processes. It emphasizes the practical application of statistical tools in the workplace.

**Student Learning Outcomes**

Upon completion of this program, the student will be able to:

- apply statistical tools to effect direct improvement to critical variances in organizational performance.
- collect valid data on real-life organizational problems and perform statistical analysis.
- evaluate the methods of the Taguchi Loss Function in the development and design of administrative and service processes.
- compare and contrast the appropriate uses for Statistical Process Control (SPC) as an organizational tool to measure and improve overall systems effectiveness and customer satisfaction.

**Requirements for Certificate 6 Units**

<table>
<thead>
<tr>
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<th>Units</th>
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<tr>
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<td>Introduction to Leadership in Action</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 320</td>
<td>Leadership in Action: Organizational Variation</td>
<td>3</td>
</tr>
</tbody>
</table>

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**Management**

**MGMT 142  Project Management Techniques and Software 3 Units**

Same As: CISA 160  
Advisory: ENGWR 102 or 107, and ENGRD 116; OR ESLR 320 and ESLW 320; CISC 300  
Hours: 54 hours LEC  
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 3 Units**  
Hours: 54 hours LEC  
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 3 Units**  
Hours: 54 hours LEC  
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 3 Units**  
Hours: 54 hours LEC  
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, purchase code of ethics, purchasing policies and procedures, and eCommerce tools and applications.

**MGMT 295  Independent Studies in Management 1-3 Units**  
Hours: 54-162 hours LAB  
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 300  Introduction to Leadership in Action 3 Units**  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course examines the underlying principles and practices of leadership and their implementation by both individuals and organizations. Topics include leadership traits, motivation, communication, continuous process improvement, customer-focused management, and leading change.

**MGMT 304  Principles of Management 3 Units**  
Course Transferable to CSU  
Hours: 54 hours LEC  
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 3 Units**  
Course Transferable to CSU  
Hours: 54 hours LEC  
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 320  Leadership in Action: Organizational Variation 3 Units**  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course covers basic managerial statistics, with a focus on understanding variation, variation patterns, and how statistical tools can be used to improve existing organizational processes. It also focuses on the support and use of Statistical Process Control (SPC). Emphasis is placed on the immediate application of the tools in the workplace.
MGMT 330  Leadership in Action: Organizational Teams  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course covers basic knowledge of organizational team process with a focus on the practical application of teamwork, team leadership, and individual/group interactive skills. Emphasis is placed on the immediate application of the tools to the work place.

MGMT 340  Leadership in Action: Organizational Systems  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course covers basic knowledge of organizational systems with a focus on the practical application of vision, mission, support processes, and organizational improvement methodologies. Emphasis is placed on the immediate application of the tools to the work place.

MGMT 350  Leadership in Action: Organizational Learning  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
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  3 Units
Advisory: ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR SPEECH 301 or 302 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course provides skill training in coping with communication problems in organizations. 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  3 Units
Advisory: 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.
Course Transferable to CSU
Hours: 54 hours LEC
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  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
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 374  Social Responsibility and Ethics in Management  3 Units
Advisory: ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better.
General Education: AA/AS Area V(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course examines the ethical climate, management problems which need to be confronted and analyzed, the role integrity plays in the survival and productivity of American organizations, and social responsibility as it relates to management.

MGMT 495  Independent Studies in Management  1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
DEGREES AND CERTIFICATES

Marketing Degree

Major Code: 011177A01

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.

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.

Requirements for Degree 41-42 Units

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
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<td>3 - 4</td>
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<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
<td>3</td>
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<tr>
<td>BUS 110</td>
<td>Business Economics (3)</td>
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<tr>
<td>or ECON 302</td>
<td>Principles of Macroeconomics (3)</td>
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<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
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<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
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<tr>
<td>MGMT 300</td>
<td>Introduction to Leadership in Action (3)</td>
<td>3</td>
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<tr>
<td>or MGMT 304</td>
<td>Principles of Management (3)</td>
<td>3</td>
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<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Professionally</td>
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<tr>
<td>MKT 312</td>
<td>Retailing</td>
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<td>MKT 314</td>
<td>Advertising</td>
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<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
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And a minimum of 7 units from the following:

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<td>Concepts in Personal Finance (3)</td>
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<td>BUS 330</td>
<td>Managing Diversity in the Workplace (3)</td>
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</tr>
<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship (3)</td>
<td>3</td>
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<td>CISA 160</td>
<td>Project Management Techniques and Software (3)</td>
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<td>or MGMT 142</td>
<td>Project Management Techniques and Software (3)</td>
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<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
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<td>CISA 320</td>
<td>Introduction to Database Management (1)</td>
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<td>CISA 330</td>
<td>Desktop Publishing (2)</td>
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<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems (3)</td>
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<td>MGMT 308</td>
<td>Personnel and Human Resources Management (3)</td>
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<tr>
<td>MGMT 372</td>
<td>Human Relations and Organizational Behavior (3)</td>
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</table>

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

Advertising and Sales Promotion Degree

Major Code: 011010A01

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.

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 Opportunities

Sales, copywriter, in-house communications, public relations, technical communications, media planner, media buyer.

(continued on next page)
(Advertising and Sales Promotion Degree continued)

Requirements for Degree Major 39-40 Units

- ACCT 101 Fundamentals of College Accounting (3) 3 - 4
  or ACCT 301 Financial Accounting (4)
- ARTNM 324 Digital Design
- ARTNM 303 Graphic Design: Typography 3
- BUS 110 Business Economics (3) 3
  or BUS 302 Principles of Macroeconomics (3)
- BUS 330 Introduction to Business 3
- BUS 310 Business Communications 3
- BUS 340 Business Law 3
- BUS 305 Beginning Word Processing 2
- BUS 315 Introduction to Electronic Spreadsheets 2
- 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

And a minimum of 3 units from the following: 3

- BUS 105 Business Mathematics (3)
  or ACCT 210 The Business Plan (1)
  or BUS 214 Financing a Small Business (1)
  or BUS 220 Retailing and Merchandising for the Small Business (1)
  or BUS 224 Customer Service (1)
  or BUS 330 Managing Diversity in the Workplace (3)
  or BUS 350 Small Business Management/Entrepreneurship (3)
  or CISC 320 Introduction to Database Management (1)
  or CISC 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)

Associate Degree Requirements: The Advertising and Sales Promotion Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Retail Management Degree

Major Code: 011175A01

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.

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, merchandising, 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 Opportunities

Buyer, department manager, store director, sales associate, account executive, merchandiser, sales manager.

Requirements for Degree Major 41-42 Units

- ACCT 101 Fundamentals of College Accounting (3) 3 - 4
  or ACCT 301 Financial Accounting (4)
- BUS 110 Business Economics (3) 3
  or ECON 302 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
- CISA 315 Introduction to Electronic Spreadsheets 2
- 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

And a minimum of 7 units from the following: 7

- BUS 105 Business Mathematics (3)
  or ACCT 210 The Business Plan (1)
  or BUS 214 Financing a Small Business (1)
  or BUS 220 Retailing and Merchandising for the Small Business (1)
  or BUS 224 Customer Service (1)
  or BUS 330 Managing Diversity in the Workplace (3)
  or BUS 350 Small Business Management/Entrepreneurship (3)
  or CISC 320 Introduction to Database Management (1)
  or CISC 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)

Associate Degree Requirements: The Retail Management Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Marketing - Introduction Certificate

Major Code: 011054C01

This certificate provides an introductory overview of the various aspects of marketing, such as advertising, sales, retailing, public relations, and customer service. It is intended to meet the needs of employed students who wish to upgrade skills as well as those students who are seeking entry-level positions.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the function of the marketing mix.
- apply principles of retailing such as business location, merchandising, inventory control, store management, and vendor relationships.
- incorporate advertising principles including strategies for planning, producing, and selecting the appropriate media.
- integrate management principles related to finance, personnel, products, services, and information.
- apply the marketing mix to various marketing information.

Requirements for Certificate 12 Units

- BUS 300 Introduction to Business 3
- MKT 300 Principles of Marketing 3
- MKT 310 Selling Professionally 3
- SPEECH 301 Public Speaking 3
Retail Management (WAFC) Certificate

Major Code: 011322C01

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).

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 Opportunities

Department manager, store director, merchandise buyer, customer service representative, or entrepreneur.

See losrios.edu/gainful-emp-info/gedt.php?major=011322C01 for Gainful Employment Disclosure.

Requirements for Certificate 25 Units

<table>
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<tr>
<th>Course Code</th>
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<td>BUS 310</td>
<td>Business Communications</td>
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<td>CISA 308</td>
<td>Exploring Word Processing and Presentation Software</td>
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<td>CISA 318</td>
<td>Exploring Spreadsheet Software</td>
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<td>CISC 308</td>
<td>Exploring Computer Environments and the Internet</td>
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<td>MGMT 304</td>
<td>Principles of Management</td>
<td>3</td>
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<td>MGMT 308</td>
<td>Personnel and Human Resources Management</td>
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<td>MGMT 372</td>
<td>Human Relations and Organizational Behavior</td>
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<td>MKT 300</td>
<td>Principles of Marketing</td>
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<tr>
<td>MKT 312</td>
<td>Retailing</td>
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Marketing

<table>
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<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MKT 295</td>
<td>Independent Studies in Marketing</td>
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<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
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<tr>
<td>MKT 310</td>
<td>Selling Professionally</td>
<td>3</td>
</tr>
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<td>MKT 312</td>
<td>Retailing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 314</td>
<td>Advertising</td>
<td>3</td>
</tr>
</tbody>
</table>

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 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.

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.

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.

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**  
3 Units  
Course Transferable to CSU  
Hours: 54 hours LEC

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**  
1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54-162 hours LAB

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**  
1-4 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to marketing with a cooperating site supervisor. Students are advised to consult with the Marketing Department faculty to review specific certificate and degree work experience requirements.  
General Education: AA/AS Area III(b)  
Course Transferable to CSU  
Hours: 60-300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
Mathematics Degree
Major Code: 011515A01
The A.S. degree in mathematics provides a foundation of mathematics for students in preparation for transfer to a four-year program in mathematics or statistics. Course work includes a three-semester calculus series, differential equations, linear algebra, and statistics and/or symbolic logic.

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.

Requirements for Degree  25 Units

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
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<td>MATH 401</td>
<td>Calculus II</td>
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<td>Calculus III</td>
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<td>MATH 410</td>
<td>Introduction to Linear Algebra</td>
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<td>MATH 420</td>
<td>Differential Equations</td>
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<td>MATH 320</td>
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<tr>
<td>or PHIL 324</td>
<td>Symbolic Logic (3)</td>
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Associate Degree Requirements: The Mathematics Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Physical Science/Mathematics Degree
Major Code: 011228A01
This degree provides a broad study in the fields of physical science and mathematics. It is a good foundation for transfer to a four-year program in science, technology, engineering, or mathematics (STEM).

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• recognize and utilize correctly 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.

Career Opportunities
This program is intended to provide a broad foundation of skills and knowledge to help students succeed in the completion of a bachelor's degree in a variety of science, math or engineering-related areas.

Requirements for Degree  18 Units

<table>
<thead>
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<th>Course Title</th>
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<td>CHEM 305, 306, 309, 310, 400, 401, 420, 421, 423, 495, 499</td>
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</table>

Associate Degree Requirements: The Physical Science/Mathematics Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Mathematics A.S. for Transfer Degree

Major Code, CSU GE: 011514A01
Major Code, IGETC: 011514A02

This degree is designed to meet common lower-division requirements for a major in Mathematics at a CSU campus. Satisfactory completion of the ARC Mathematics transfer degree provides a solid foundation and satisfies the standard prerequisites for upper division coursework for Mathematics majors. However, it is highly recommended that students meet with a counselor since major and general education requirements vary for each college/university.

The Mathematics Associate in Science 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 outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

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.

Career Opportunities

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.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 400</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 401</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 402</td>
<td>Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 410</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 420</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
</tbody>
</table>

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

Mathematics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 10</td>
<td>Developing Confidence in Math</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Advisory: Concurrent enrollment in another math course</td>
<td></td>
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<tr>
<td></td>
<td>Hours: 18 hours LEC</td>
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<tr>
<td>MATH 25</td>
<td>Computational Arithmetic</td>
<td>3</td>
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<tr>
<td></td>
<td>Advisory: Placement through the math assessment process</td>
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<tr>
<td></td>
<td>Hours: 54 hours LEC</td>
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<tr>
<td>MATH 32</td>
<td>Pre-Algebra</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 24, 25, or 41 with a grade of “C” or better, AND ENGRD 116 or ESLR 320 with a grade of “C” or better. Placement through the math assessment process</td>
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<tr>
<td></td>
<td>Hours: 54 hours LEC</td>
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<tr>
<td>MATH 41</td>
<td>Algebra Readiness - Part I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Advisory: CISC 100, CISC 300, or CISC 305 with a grade of “C” or better, AND ENGRD 116 or ESLR 320 with a grade of “C” or better. Placement through the math assessment process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hours: 54 hours LEC</td>
<td></td>
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</tbody>
</table>
MATH 42  Algebra Readiness - Part II  3 Units
Prerequisite: MATH 41 with a grade of “C” or better
Hours: 54 hours LEC
This course is the second of two parts covering algebra readiness in a mastery-based learning environment. The fundamentals of pre-algebra are introduced, with an emphasis on problem solving skills. Topics include order of operations, signed numbers, application problems, concepts of variables, exponents, operations on signed fractions, percent problems, solving algebraic equations, the rectangular coordinate system, introduction to graphing linear equations, applications of equations, and area/perimeter of geometric figures. The course is offered through the Multimedia Math Learning Center (MMLC), using an independent study approach under the direction of an instructor. Details about the program can be found in the catalog description for MATH 41. This course may be completed as quickly as possible but no later than the end of the semester. Students who complete this course during the first half of the semester may sign up immediately for MATH 131. For the most updated information, please visit the MMLC web page on the ARC website. Completion of MATH 41 AND MATH 42 with grades of “C” or better meets the prerequisite for MATH 131, MATH 100, MATH 103, MATH 129, and STAT 105.

MATH 100 Elementary Algebra  5 Units
Prerequisite: MATH 32, 39, or 42 with a grade of “C” or better; or placement through the assessment process.
Hours: 90 hours LEC
This course covers the fundamental concepts and operations of algebra and incorporates problem-solving skills. Topics include properties of real numbers, linear equations and inequalities, integer exponents, polynomials, and factoring polynomials. Other topics include rational and radical expressions, rational and radical equations, graphing and finding equations of lines, graphing and solving systems of linear equations, and graphing and solving quadratic equations.

MATH 110 Elementary Geometry  5 Units
Prerequisite: MATH 100, 104, or 132 with a grade of “C” or better, or placement through the assessment process.
Hours: 90 hours LEC
This course covers aspects of elementary geometry. Topics include geometric terms and definitions, properties of parallel lines and parallelograms, congruent and similar triangles, properties of triangles, right triangles, basic trigonometry, properties of circles, geometric constructions, areas, and volumes. The course also emphasizes problem-solving strategies, elementary logic, and writing proofs. (Competency: Mathematics)

MATH 120 Intermediate Algebra  5 Units
Prerequisite: MATH 100, 104, or 132 with a grade of “C” or better, or placement through the assessment process.
General Education: AA/AS Area II(b)
Hours: 90 hours LEC
This course extends and reviews the concepts of elementary algebra while incorporating applications and problem-solving skills. Reviewed and extended topics include linear and quadratic equations and their graphs, linear inequalities, systems of linear equations, exponents, factoring polynomials, rational expressions, and radicals. New topics include absolute value equations and inequalities, graphs of absolute value functions, equations of parallel and perpendicular lines, graphs of linear inequalities, graphs of systems of linear inequalities, functions, function notation, domain and range, inverse functions, exponential and logarithmic functions and their graphs, quadratic and polynomial functions and their graphs, an introduction to the complex number system, finding the real and complex solutions for a variety of equations, an introduction to conic sections, and nonlinear systems of equations and their graphs. (Competency: Mathematics)

MATH 125 Intermediate Algebra with Applications  4 Units
Prerequisite: MATH 100 or 132 with a grade of “C” or better, or placement through the assessment process.
General Education: AA/AS Area II(b)
Hours: 72 hours LEC
This course is the second of two parts covering algebra readiness in a mastery-based learning environment. Problem-solving skills are emphasized throughout the course. Topics include linear and quadratic equations, inequalities, integer exponents, polynomials, systems of linear equations, the rectangular coordinate system, graphs and equations of lines, and related applications. The course is offered through the Multimedia Math Learning Center (MMLC), using an independent study approach under the direction of an instructor. Computer-based instruction via the Internet is an integral part of the course. Students are required to purchase a workbook that is bundled with the on-line video and math content system. One set of materials can be used for multiple MMLC courses, if completed in consecutive semesters. The content in the course is organized into various modules. Each module must be completed at a mastery level before the student moves on to the next. Students will demonstrate mastery by successfully completing assignments and then earning at least 80% on the module exam that is taken on-line in the MMLC. If necessary students will repeat the exam until mastery is achieved. All modules must be completed before the student takes the final exam, a comprehensive test on paper that is taken once and determines the majority of the course grade. Regular class attendance is required throughout the semester, including the mandatory orientation during the first class meeting. Students may also visit the MMLC during other hours of operation to receive tutoring, complete assignments, and take exams. This course may be completed as quickly as possible but no later than the end of the semester. Students who complete this course during the first half of the semester may sign up immediately for MATH 132. For the most updated information, please visit the MMLC web page on the ARC website. Completion of MATH 131 AND MATH 132 with grades of “C” or better meets the prerequisite for MATH 133, MATH 110, MATH 120, and MATH 125.
MATH 132 Combined Algebra - Part II 3 Units  
Prerequisite: MATH 131 with a grade of "C" or better  
Hours: 54 hours LEC  
This course is the second of three parts covering combined algebra in a mastery-based learning environment. Problem-solving skills are emphasized throughout the course. Topics include polynomial factorization, rational expressions and equations, radical expressions and equations, rational exponents, and related applications. The course is offered through the Multimedia Math Learning Center (MMLC), using an independent study approach under the direction of an instructor. Details about the program can be found in the catalog description for MATH 131. This course may be completed as quickly as possible but no later than the end of the semester. Students who complete this course during the first half of the semester may sign up immediately for MATH 133. For the most updated information, please visit the MMLC web page on the ARC website. Completion of MATH 131 AND MATH 132 with grades of "C" or better meets the prerequisite for MATH 133, MATH 110, MATH 120, and MATH 125.

MATH 133 Combined Algebra - Part III 3 Units  
Prerequisite: MATH 132 with a grade of "C" or better  
General Education: AA/AS Area II(b) (effective Summer 2013)  
Hours: 54 hours LEC  
This course is the third of three parts covering combined algebra in a mastery-based learning environment. Problem-solving skills are emphasized throughout the course. Topics include function evaluation and notation, inverse functions, solving quadratic equations, complex numbers, graphs of quadratic functions, exponential and logarithmic functions, properties of logarithms, conic sections, and related applications. The course is offered through the Multimedia Math Learning Center (MMLC), using an independent study approach under the direction of an instructor. Details about the program can be found in the catalog description for MATH 131. This course may be completed as quickly as possible but no later than the end of the semester. For the most updated information, please visit the MMLC web page on the ARC website. Completion of MATH 131, MATH 132, AND MATH 133 with grades of "C" or better is equivalent to the completion of MATH 120 or MATH 125 or MATH 129.

MATH 145 Mathematics for the Trades 1.5 Units  
Hours: 23 hours LEC; 12 hours LAB  
This course introduces mathematics applicable to technical programs of study. Topics include the use of mathematical operators on whole numbers, fractions, and decimals. Additional content includes fundamentals of algebra, basic geometry, and triangle trigonometry. This course is intended for those in Pre-Apprenticeship programs or other technical educational programs. Completion of this course does not fulfill any prerequisites for any course, including MATH courses, at American River College.

MATH 295 Independent Studies in Mathematics 1-3 Units  
Hours: 54-162 hours LAB  
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 300 Introduction to Mathematical Ideas 3 Units  
Prerequisite: MATH 120, 124, 125, 129, or 133 with a grade of "C" or better, or placement through the assessment process.  
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. This course is not recommended for students entering elementary school teaching or business administration majors. (Competency: Mathematics)

MATH 310 Mathematical Discovery 3 Units  
Prerequisite: MATH 110 with a grade of "C" or better or successful completion of high school geometry, AND MATH 120, 125, 129, or 133 with a "C" or better, or placement through the assessment process.  
Geometry is the only high school course that can be used to meet the prerequisite.  
General Education: AA/AS Area II(b); CSU Area B4  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. (Competency: Mathematics)

MATH 311 Mathematical Concepts for Elementary School Teachers - Number Systems 3 Units  
Hours: 54 hours LEC  
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2  
Course Transferable to UC/CSU  
This course focuses on the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including history of real number systems and subsystems, basic number theory, sets and relations, logic, mathematical induction, and current national and state curriculum standards for mathematics. It emphasizes comprehension and critical analysis of mathematical concepts and applications of logical reasoning. (C-ID MATH 120; Competency: Mathematics)

MATH 320 Symbolic Logic 3 Units  
Same As: PHIL 324  
Prerequisite: MATH 120, 125, 129, or 133 with a grade of "C" or better, or placement through the assessment process.  
General Education: AA/AS Area II(b); CSU Area B4  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. (C-ID PHIL 210; Competency: Mathematics)
MATH 325 Problem-Solving  3 Units  
Prerequisite: MATH 120, 125, 129, or 133 with a grade of “C” or better, or placement through the assessment process.  
General Education: AA/AS Area II(b); CSU Area B4  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course focuses on the development of specific strategies and skills necessary to solve real-world and advanced mathematics problems. It emphasizes the development of logical, organizational, and divergent thinking, as well as written and oral communication skills, individual and group work, and clear presentation of mathematical work. Topics include drawing a diagram, eliminating possibilities, making a systematic list, looking for a pattern, guessing and checking, solving an easier related problem, working backwards, using algebraic representation, and applying the method of finite differences. (Competency: Mathematics)  

MATH 330 Trigonometry  3 Units  
Prerequisite: MATH 120, 129, or 133 with a grade of “C” or better, or placement through the assessment process.  
Advisory: MATH 110; or completion of high school geometry  
General Education: AA/AS Area II(b); CSU Area B4  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course covers the fundamentals of trigonometry and its applications. Topics include degree and radian measurements of angles, right triangle trigonometry, unit circle trigonometry, graphs of trigonometric functions, algebraic manipulation and proof of trigonometric identities, inverse trigonometric functions, solving trigonometric equations, the Laws of Sines and Cosines, vectors, the polar coordinate system, and roots and powers of complex numbers (De Moivre’s Theorem). This course is not open to students who have completed MATH 373, Trigonometry for Calculus. (C-ID MATH 851; Competency: Mathematics)  

MATH 336 College Algebra  5 Units  
Prerequisite: MATH 120, 124, 129, or 133 with a grade of “C” or better, or placement through the assessment process.  
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2  
Course Transferable to UC/CSU  
Hours: 90 hours LEC  
This course reviews and covers topics beyond those studied in intermediate algebra, including functions, matrices, The Rational Root Theorem, partial fractions, sequences and series, mathematical induction, and The Binomial Theorem. It focuses on applications and graphing of polynomial, logarithmic, and exponential functions, as well as solving systems of linear and non-linear equations and inequalities. It also covers analytic geometry, including straight lines, conic sections, and curve sketching. (C-ID MATH 150; Competency: Mathematics)  

MATH 340 Calculus for Business and Economics  3 Units  
Prerequisite: MATH 120, 129, or 133 with a grade of “C” or better, or placement through the assessment process.  
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. (C-ID MATH 140; Competency: Mathematics)  

MATH 342 Modern Business Mathematics  3 Units  
Prerequisite: MATH 120, 124, 129, or 133 with a grade of “C” or better, or placement through the assessment process.  
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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, including applications and optimization, and linear programming. (Competency: Mathematics)  

MATH 355 Calculus for Biology and Medicine I  4 Units  
Prerequisite: MATH 330 or 373 with a grade of “C” or better, or placement through the assessment process.  
Advisory: MATH 370  
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2  
Course Transferable to UC/CSU  
Hours: 72 hours LEC  
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. (Competency: Mathematics)  

MATH 356 Calculus for Biology and Medicine II  4 Units  
Prerequisite: MATH 355 with a grade of “C” or better  
General Education: AA/AS Area II(b); CSU Area B4  
Course Transferable to UC/CSU  
Hours: 72 hours LEC  
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. This course is a superset of MATH 351, treating additional topics and covering them in more depth. (Competency: Mathematics)  

MATH 370 Pre-Calculus Mathematics  5 Units  
Prerequisite: MATH 330 or 373 with a grade of “C” or better, or placement through the assessment process.  
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2  
Course Transferable to UC/CSU  
Hours: 90 hours LEC  
This course provides foundational mathematics and problems that require critical thinking in preparation for the calculus sequence for science, technology, engineering, and mathematics (STEM) majors. Topics include rigorous treatment of polynomial, rational, logarithmic, exponential, and trigonometric functions, including graphing and applications, as well as systems of linear and non-linear equations and inequalities. This course also covers analytic geometry, conic sections, vectors, parametric equations, and polar equations. (C-ID MATH 155; Competency: Mathematics)
Mathematics & Statistics Courses

AA DEGREE/ REMEDIATION/NON-TRANSFERABLE/NON-DEGREE

Lecture Series Pathway

ENTRY POINT
MATH 100 (5 units) Elementary Algebra

ENTRY POINT
MATH 120 (5 units) Intermediate Algebra

MATH 110 (5 units) Elementary Geometry

PERSONALIZED LEARNING PATHWAY

ENTRY POINT
MATH 41 (3 units) Algebra Readiness - Part I

ENTRY POINT
MATH 132 (3 units) Combined Algebra - Part II

ENTRY POINT
MATH 131 (3 units) Combined Algebra - Part I

MATH 42 (3 units) Algebra Readiness - Part II

MATH 133 (3 units) Combined Algebra - Part III

ACCELERATED PATHWAYS

ENTRY POINT
MATH 41* (3 units) Algebra Readiness - Part I

ENTRY POINT
MATH 132* (3 units) Combined Algebra - Part II

ENTRY POINT
MATH 131* (3 units) Combined Algebra - Part I

MATH 133 (3 units) Combined Algebra - Part III

MATH 129 (9 units) Elementary & Intermediate Algebra

* Classes can be taken in the same semester but not concurrently.

SUPPORT COURSES OFFERED BEGINNING IN FALL 2019

NOTE:
MATH 110, 120, 129 and 133 meet the ARC Graduation competency requirements for math. Please see a counselor for math course selection that best meets your individual needs.
Mathematics & Statistics Courses

BSTEM PLACEMENT
BUSINESS | SCIENCE | TECHNOLOGY | ENGINEERING | MATH

Education / Business / Other Pathways

CHOOSE ONE

MATH 310 (3 units) Math Discovery
MATH 311 (3 units) Math Concepts for School Teachers
MATH 320 (3 units) Intro. to Symbolic Logic
MATH 340 (3 units) Calculus for Business
MATH 342 (3 units) Modern Business Math
MATH 340 or MATH 342 (2 units) Support for Business Mathematics
MATHS 45+ (2 units) Support for Business Mathematics

Calculus Pathway

MATH 370 has a Trigonometry prerequisite
MATH 372 and 373 can be taken in any order or Concurrently in one semester.
MATH 370 is an Advised Prerequisite.

MATH 370 (5 units) Precalculus
MATH 372 (4 units) College Algebra for Calculus
MATH 373 (4 units) Trigonometry for Calculus
MATHS 73 (2 units) Support for Trigonometry for Calculus

MATH 372 and 373 can be taken in any order or Concurrently in one semester.

MATH 372 (4 units) College Algebra for Calculus
MATHS 72 (2 units) Support for College Algebra for Calculus

MATH 373 (4 units) Trigonometry for Calculus
MATHS 73 (2 units) Support for Trigonometry for Calculus

RECOMMENDED

MATH 400 (5 units) Calculus I
MATH 401 (5 units) Calculus II
MATH 402 (5 units) Calculus III
MATH 410 (3 units) Linear Algebra
MATH 420 (4 units) Differential Equations

Biology and Medicine Calculus Pathway

MATH 373 (4 units) Trigonometry for Calculus
MATHS 73 (2 units) Support for Trigonometry for Calculus

MATH 355 (4 units) Calculus for Biology & Medicine I
MATH 356 (4 units) Calculus for Biology & Medicine II

MATH 355 and 356 may not be accepted by all Biology/Medicine programs. MATH 370 is an Advised Prerequisite.

NOTE:
MATH 120, 129, 133 each satisfy the Intermediate Algebra prerequisite.
Please see a counselor for math course selection that best meets your individual needs.

• SUPPORT COURSES OFFERED BEGINNING IN FALL 2019
MATHEMATICS & STATISTICS

MATH 372 College Algebra for Calculus  4 Units
Prerequisite: MATH 120, 129, or 133 with a grade of “C” or better, or placement through the assessment process.
General Education: AAAS Area II(b) (effective Summer 2018); CSU Area B4 (effective Fall 2018); IGETC Area 2 (effective Fall 2018)
Course Transferable to UC/CSU
Hours: 72 hours LEC
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. (Competency: Mathematics (effective Summer 2018))

MATH 373 Trigonometry for Calculus  4 Units
Prerequisite: MATH 120, 129, or 133 with a grade of “C” or better, or placement through the assessment process.
Advisory: MATH 110; or completion of high school geometry
General Education: AAAS Area II(b) (effective Summer 2018); CSU Area B4 (effective Fall 2018)
Course Transferable to CSU
Hours: 72 hours LEC
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. Emphasis is given to 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. (Competency: Mathematics (effective Summer 2018))

MATH 400 Calculus I  5 Units
Prerequisite: MATH 370 (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.
General Education: AAAS Area II(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 90 hours LEC
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. (C-ID MATH 210; Part of C-ID MATH 900S; Competency: Mathematics)

MATH 401 Calculus II  5 Units
Prerequisite: MATH 400 with a grade of “C” or better
General Education: CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 90 hours LEC
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. (C-ID MATH 220; Part of C-ID MATH 900S; Competency: Mathematics)

MATH 402 Calculus III  5 Units
Prerequisite: MATH 401 with a grade of “C” or better
General Education: CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 90 hours LEC
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. (C-ID MATH 230; Competency: Mathematics)

MATH 410 Introduction to Linear Algebra  3 Units
Prerequisite: MATH 401 with a grade of “C” or better
Advisory: MATH 402
General Education: CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID MATH 250; Part of C-ID MATH 910S; Competency: Mathematics)

MATH 420 Differential Equations  4 Units
Prerequisite: MATH 401 with a grade of “C” or better
Advisory: MATH 402
General Education: CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 72 hours LEC
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, and applications. (C-ID MATH 240; Part of C-ID MATH 910S; Competency: Mathematics)

MATH 480 Honors Seminar in Mathematics  1 Unit
Prerequisite: MATH 370 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 18 hours LEC
Honors Seminar in Mathematics is a one-unit intensive course. The course is taught in a seminar format where work is done independently in pursuit of solutions to challenging problems in mathematics in consultation with the instructor. Seminar participants will explore strategies and techniques for solving problems and present their solutions to the class.
MATH 495 Independent Studies in Mathematics 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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 10 Support for Introduction to Probability and Statistics 2 Units
Hours: 36 hours LEC
This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in STAT 300 (Introduction to Probability and Statistics). Students taking this course must be concurrently enrolled in the corresponding section of STAT 300. 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 105 Statway, Part I 6 Units
Prerequisite: MATH 32 or 42 with a grade of "C" or better, or placement through the assessment process.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
Hours: 108 hours LEC
This is the first semester of a two-semester course that introduces the concepts of probability and statistics with requisite arithmetic and algebraic topics integrated throughout. It is structured to serve students planning to transfer and continue studies in humanities or social sciences. Statistics topics emphasize data analysis and include methods for collecting data, graphical and numerical descriptive statistics, correlation, linear regression, simple exponential regression, and introduction to probability. Algebra topics include proportional relationships (including variation) with applications, expressions, linear equations and systems with applications, functions, quadratic and exponential equations, and linear and exponential models. Learning strategies for success with an emphasis on study skills, resource acquisition, and maintaining a positive perspective towards learning are also discussed and applied.

STAT 300 Introduction to Probability and Statistics 4 Units
Prerequisite: MATH 120, 125, 129, or 133 with a grade of "C" or better, or placement through the assessment process.
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is an introduction to probability and statistics designed for students in the honors program. Topics include elementary principles and applications of descriptive statistics, counting principles, elementary probability principles, probability distributions, estimation of parameters, hypothesis testing, linear regression and correlation, and Analysis of Variance (ANOVA). Applications use data from various disciplines including business, social sciences, psychology, life and health sciences, and education. Statistical analysis using a computer statistics package is required. This honors section uses an intensive instructional methodology designed to challenge motivated students, and includes a capstone project. This course is not open to students who have completed STAT 300.

STAT 305 Statway, Part II 6 Units
Prerequisite: STAT 105 with a grade of "C" or better
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 108 hours LEC
This is the second semester of a two-semester course that introduces the concepts of probability and statistics with requisite arithmetic and algebraic topics integrated throughout. It is structured to serve students planning to transfer and continue studies in humanities or social sciences. Statistics topics emphasize data analysis and include basic concepts of probability; confidence intervals; hypothesis tests for means, proportions, and variance; chi-squared tests; and ANOVA (Analysis of Variance). Algebra topics include proportional relationships (including variation) with applications, expressions, linear equations and systems with applications, functions, quadratic and exponential equations, and linear and exponential/logarithmic models. Learning strategies for success with an emphasis on study skills, resource acquisition, and maintaining a positive perspective towards learning are also discussed and applied. Both parts of Statway must be completed with a grade of "C" or better to receive credit for transfer-level statistics. (Competency: Mathematics)

STAT 480 Introduction to Probability and Statistics - Honors 4 Units
Prerequisite: MATH 120, 125, 129, or 133 with a grade of "C" or better, or placement through the assessment process.
Advisory: Placement into ENGRWR 300.
Course Transferable to CSU
Hours: 72 hours LEC
This course is an introduction to probability and statistics designed for students in the honors program. Topics include elementary principles and applications of descriptive statistics, counting principles, elementary probability principles, probability distributions, estimation of parameters, hypothesis testing, linear regression and correlation, and Analysis of Variance (ANOVA). Applications use data from various disciplines including business, social sciences, psychology, life and health sciences, and education. Statistical analysis using a computer statistics package is required. This honors section uses an intensive instructional methodology designed to challenge motivated students, and includes a capstone project. This course is not open to students who have completed STAT 300.

STAT 495 Independent Studies in Statistics 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
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**

**Music Degree**

Major Code: 011191A01

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.

**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 Opportunities**

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.

**Core Requirements for Degree**  26 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUFHL 310</td>
<td>Survey of Music History and Literature (Greek Antiquity to 1750)</td>
<td>3</td>
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<tr>
<td>MUFHL 311</td>
<td>Survey of Music History and Literature (1750 to the present)</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 400</td>
<td>Music Theory and Musicianship I</td>
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<tr>
<td>MUFHL 401</td>
<td>Music Theory and Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>MUFHL 410</td>
<td>Music Theory and Musicianship III</td>
<td>4</td>
</tr>
<tr>
<td>MUFHL 411</td>
<td>Music Theory and Musicianship IV</td>
<td>4</td>
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<tr>
<td>MUIVI 420</td>
<td>Applied Music</td>
<td>1</td>
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<tr>
<td>MUIVI 421</td>
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<td>MUIVI 422</td>
<td>Applied Music III</td>
<td>1</td>
</tr>
<tr>
<td>MUIVI 423</td>
<td>Applied Music IV</td>
<td>1</td>
</tr>
</tbody>
</table>

**Guitarists/Pianists/Composers Concentration**  34 Units

Core Requirements............................................................................. 26

And a minimum of 8 units from the following:................................. 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>MUP 310</td>
<td>Orchestra (2)</td>
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<tr>
<td>MUP 330</td>
<td>Concert Band (2)</td>
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<td>MUP 340</td>
<td>Symphonic Band (2)</td>
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<tr>
<td>MUP 350</td>
<td>Concert Choir I (2)</td>
<td></td>
</tr>
<tr>
<td>MUP 360</td>
<td>Chamber Singers (2)</td>
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</tbody>
</table>

**Instrumentalists Concentration**  34 Units

Core Requirements............................................................................. 26

And a minimum of 8 units from the following:................................. 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>Orchestra (2)</td>
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<tr>
<td>MUP 330</td>
<td>Concert Band (2)</td>
<td></td>
</tr>
<tr>
<td>MUP 340</td>
<td>Symphonic Band (2)</td>
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</tbody>
</table>

**Vocalists Concentration**  34 Units

Core Requirements............................................................................. 26

And a minimum of 8 units from the following:................................. 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUP 350</td>
<td>Concert Choir I (2)</td>
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</tr>
<tr>
<td>MUP 360</td>
<td>Chamber Singers (2)</td>
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</table>

**Associate Degree Requirements:** The Music Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Music A.A. for Transfer Degree
Major Code, IGETC: 011192A02
Completion of this degree provides a foundation in music. Program offerings include course work in music theory and aural skills, applied composition, instrumental and vocal instruction, and ensemble performance.

The Associate in Arts in Music for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

The Associate in Arts in Music for Transfer (A.A.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and (b) the Intersegmental General Education Transfer Curriculum (IGETC) 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

Career Opportunities
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.

Core Requirements for Degree 20 Units
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
MUIVI 420 Applied Music I 1
MUIVI 421 Applied Music II 1
MUIVI 422 Applied Music III 1
MUIVI 423 Applied Music IV 1

Guitarists/Pianists/Composers 28 Units
Core Requirements 20
And 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)

Instrumentalists 28 Units
Core Requirements 20
And 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 330 Concert Band (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)

Vocalists 28 Units
Core Requirements 20
And a minimum of 8 units from the following: 8
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)

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

And a minimum of 8 units from the following:
MUP 310 Orchestra (2)
MUP 311 Advanced Orchestra (1 - 2)
MUP 320 Jazz Band (2)
MUP 321 Advanced Jazz Band (1 - 2)
Jazz Studies Degree
Major Code: 011197A01
The Jazz Studies degree provides a rigorous curriculum of jazz theory, history, performance groups, improvisation, piano, and individual applied instruction.

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 Opportunities
This degree prepares a student for careers in performance (concert and studio), education, arranging/composing, and the music industry. The degree also prepares students for transfer to a four-year institution.

Requirements for Degree 33 Units
- MUFHL 315 Jazz History ......................................................... 3
- MUFHL 400 Music Theory and Musicianship I ......................... 3
- MUFHL 401 Music Theory and Musicianship II ....................... 1
- MUFHL 410 Music Theory and Musicianship III ..................... 4
- MUFHL 420 Beginning Jazz Theory ......................................... 2
- MUIVI 385 Jazz Styles and Improvisation (2) .......................... 2
- MUIVI 390 Jazz and Popular Vocal Styles and Improvisation I (2) 2
- MUIVI 400 Beginning Jazz Piano ........................................... 2
- 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

And 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)

Associate Degree Requirements: The Jazz Studies Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Commercial Music: Business Degree and Certificate
Major Code, degree: 011197A01
Major Code, certificate: 011514C01
The Commercial Music: Business program 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, recording contracts, publishing agreements, artist management, promotion, and marketing.

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 Opportunities
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.

Requirements for Degree or Certificate 33 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 110 The Business of Music ......................................... 3
- MUSM 111 The Business of Music ......................................... 3
- MUSM 112 The Business of Music/Artist Management ............... 3
- MUSM 113 The Business of Music/Promotion ......................... 3
- MUSM 120 Contemporary Songwriting ................................... 3

And 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)
- BUS 220 Retailing and Merchandising for the Small Business (1)
- BUS 224 Customer Service (1)
- BUS 228 Selling Techniques for the Small Business (1)

Associate Degree Requirements: The Commercial Music: Business Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Commercial Music: Recording Degree and Certificate
Major Code, degree: 011198A01
Major Code, certificate: 011519C01
The Commercial Music: Recording program 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.

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
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- 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 Opportunities**

 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.

See losrios.edu/gainful-emp-info/gedt.php?major=011519C01 for Gainful Employment Disclosure.

**Requirements for Degree or Certificate** 37 Units

- ET 302 Principles of Electricity and Electronics .................. 4
- MUIHL 321 Basic Musicianship ............................................ 3
- MUIHL 330 World Music ...................................................... 3
- MUIVI 340 Beginning Piano .................................................. 2
- MUSM 110 The Business of Music .......................................... 3
- MUSM 120 Contemporary Songwriting ................................. 3
- MUSM 140 Concert Sound Reinforcement .............................. 2
- 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 352 Recording Studio Techniques IV ....................... 3
- MUSM 354 Recording Studio Techniques V ....................... 3
- MUSM 355 Pro Tools 101, Introduction to Pro Tools .............. 1.5
- MUSM 357 Pro Tools 11 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)

**Associate Degree Requirements:** The Commercial Music Recording Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

**Digital Audio Production Certificate**

Major Code: 011192C01

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.

**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 Opportunities**

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.

**Requirements for Certificate** 12.5 - 14 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>MUSM 334</td>
<td>Introduction to Musical Instrument Digital Interface (MIDI)</td>
<td>2</td>
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<tr>
<td>MUSM 342</td>
<td>Recording Studio Techniques I</td>
<td>3</td>
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<tr>
<td>MUSM 344</td>
<td>Recording Studio Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 356</td>
<td>Pro Tools 101, Introduction to Pro Tools</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSM 357</td>
<td>Pro Tools 11 Intermediate Pro Tools</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSM 366</td>
<td>Pro Tools 201, Advanced Pro Tools (1.5)</td>
<td>1.5 - 3</td>
</tr>
<tr>
<td>or MUSM 350</td>
<td>Recording Studio Techniques III (3)</td>
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</table>

**Music Management and Promotion Certificate**

Major Code: 011193C01

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.

**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 Opportunities**

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.

**Requirements for Certificate** 12 Units

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<tr>
<th>Course</th>
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<tr>
<td>MUSM 111</td>
<td>The Business of Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 112</td>
<td>The Business of Music/Artist Management</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 113</td>
<td>The Business of Music/Promotion</td>
<td>3</td>
</tr>
</tbody>
</table>

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DEPARTMENT CERTIFICATES

Music Instructional Assistant Certificate
Major Code: 011520C01
The certificate is an introductory program for students planning careers in music education for grades K-12.

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 Opportunities
This certificate prepares a student for careers in music education, grades K-12, in paraprofessional roles such as a docent, tutor, or instructional assistant.

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

Core Requirements for Certificate 8.5 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 (1 - 4)
MUIVI 498 Work Experience in Instrumental/Voice Instruction (1 - 4)

Guitarists/Pianists/Composers 10.5 Units

Core Requirements ................................................................................................. 8.5
And 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)

Vocalists 10.5 Units

Core Requirements ................................................................................................. 8.5
And 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)

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.

Career Opportunities
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.

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

Requirements for Certificate 12 - 13 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 (2)
or MUIVI 400 Beginning Jazz Piano (2)
or MUIVI 370 Beginning Guitar (2)

Studio Music Instructor Certificate
Major Code: 011196C01
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.

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 Opportunities
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.

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

Core Requirements for Certificate 8.5 Units
MUFL 321 Basic Musicianship ............................................... 3
MUUVI 200 Introduction to Music Education ................................ 0.5
MUUVI 340 Beginning Piano .................................................. 2
MUUVI 420 Applied Music ..................................................... 1
MUUVI 421 Applied Music II .................................................. 1
A minimum of 1 unit from the following: .................................. 1
MUUVI 298 Work Experience in Instrumental/Voice Instruction (1 - 4)
MUUVI 498 Work Experience in Instrumental/Voice Instruction (1 - 4)

Guitarists/Pianists/Composers 10.5 Units
Core Requirements .................................................................. 8.5
And 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 I (2)
MUP 361 Advanced Chamber Singers (2)
MUP 401 Advanced Vocal Jazz Ensemble (1 - 2)

Instrumentalists 10.5 Units
Core Requirements .................................................................. 8.5
And 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)

Vocalists 10.5 Units
Core Requirements .................................................................. 8.5
And a minimum of 2 units from the following: .......................... 2
MUP 352 Advanced Concert Choir I (2)
MUP 361 Advanced Chamber Singers (2)
MUP 401 Advanced Vocal Jazz Ensemble (1 - 2)

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.

Career Opportunities
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.

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.

Requirements for Certificate 12 - 13 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)

Music Fundamentals/History and Literature

MUFHL 300 Introduction to Music 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an 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. (C-ID MUS 100)

MUFHL 308 Introduction to Music: Rock & Roll 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines social, political, cultural, and economic issues as they relate to the history of Rock & 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) 3 Units
Advisory: MUFHL 321 and 400; AND eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is part 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) 3 Units
Advisory: MUFHL 321 and 400; Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is part 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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course 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 3 Units
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course introduces the elements of music including scales, chords, aural skills, harmonic progression, form, notation, and composition. No previous musical study is required. (C-ID MUS 110)

MUFHL 330 World Music 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to 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 Music.” Concepts of ethnicity, ethnocentrism, racism, ageism, class differences, and gender issues are addressed. Music of the Americas, Africa, Asia, India, Europe, and the Middle East are compared. No previous musical experience is required.

MUFHL 400 Music Theory and Musicianship I 4 Units
Advisory: MUIVI 340 (Beginning Piano) or knowledge of musical notation
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is a study of scales, intervals, triads, diatonic harmonies, part writing, rhythms, sight singing, ear training, dictation, history, and performance. Short creative assignments are included to provide experience in the application of materials learned in class. It includes analysis and composition and is required for music majors. (C-ID MUS 125; C-ID MUS 120)

MUFHL 401 Music Theory and Musicianship II 4 Units
Prerequisite: MUFHL 400 with a grade of “C” or better
Advisory: MUIVI 341
General Education: CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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. (C-ID MUS 130; C-ID MUS 135)

MUFHL 410 Music Theory and Musicianship III 4 Units
Prerequisite: MUFHL 401 with a grade of “C” or better
Advisory: MUIVI 350
General Education: CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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. (C-ID MUS 140; C-ID MUS 145)

MUFHL 411 Music Theory and Musicianship IV 4 Units
Prerequisite: MUFHL 410 with a grade of “C” or better
Advisory: MUIVI 351
General Education: CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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. (C-ID MUS 150; C-ID MUS 155)

MUFHL 420 Beginning Jazz Theory 2 Units
Prerequisite: MUFHL 400 with a grade of “C” or better
Advisory: MUIVI 365 and 400
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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 2 Units
Prerequisite: MUFHL 420 with a grade of “C” or better
Advisory: MUIVI 386 and 400
Course Transferable to CSU
Hours: 36 hours LEC; 18 hours LAB
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.

MUIVI 200 Introduction to Music Education .5 Units
Prerequisite: MUFHL 321 (Basic Musicianship) with a grade of “C” or better, or equivalent, AND three years of experience in either band or choir.
Hours: 9 hours LEC
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the instrumental/voice instruction field with a cooperating site supervisor. Students are advised to consult with the Music Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b) (effective Summer 2018)
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement within the instrumental/voice instruction 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.

MUIVI 310 Voice Class I 2 Units
Course Family: Traditional Voice Fundamentals (see page 38 - limitation on active participatory courses)
Advisory: MUIVI 321
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course is the study of solo singing. Topics include basic vocal technique, breathing, mouth position, and solo repertoire.

MUIVI 311 Voice Class II 2 Units
Course Family: Traditional Voice Fundamentals (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 310 with a grade of “C” or better
Advisory: MUIHL 321
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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 2 Units
Course Family: Traditional Voice Technique and Repertoire (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 311 with a grade of “C” or better
Advisory: MUIVL 321
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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 2 Units
Course Family: Traditional Voice Technique and Repertoire (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 320 with a grade of “C” or better
Advisory: MUIVL 321
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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 2 Units
Course Family: Traditional Piano Fundamentals (see page 38 - limitation on active participatory courses)
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course introduces piano/keyboard skills. Beginning concepts of music theory, music notation, and harmonizing simple melodies are presented. This course is open to all students and is recommended for music majors who do not demonstrate equivalent piano proficiency.

MUIVI 341 Piano II 2 Units
Course Family: Traditional Piano Fundamentals (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 340 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This continuation of MUIVI 340 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. This course 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 Intermediate Piano 2 Units
Course Family: Traditional Piano Technique and Repertoire (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 341 with a grade of "C" or better, or the ability to play major scales, hands together, two octaves and harmonic minor in A, E, B, F, D, and G.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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 2 Units
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 in A, E, B, F, D, and G.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course is the second year of piano study. It is a continuation of MUIVI 350. The course includes the further development of insight into music as an artistic means of communication through the study of scales, chords, melodic harmonization and repertoire. The course also serves to develop the fundamental skills for the non-keyboard music major.

MUIVI 370 Beginning Guitar 2 Units
Course Family: Traditional Guitar and Bass (see page 38 - limitation on active participatory courses)
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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 2 Units
Course Family: Traditional Guitar and Bass (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 370 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course is a continuation of MUIVI 370 with emphasis on increased skills in note reading, improvisation, accompanying, and development of personal style.

MUIVI 385 Jazz Styles and Improvisation 2 Units
Course Family: Jazz Instrumental (see page 38 - limitation on active participatory courses)
Advisory: MUFHL 400
Enrollment Limitation: Ability to play a melodic instrument or ability to sight sing; ability to read music in the treble or bass clef.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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 2 Units
Course Family: Jazz Instrumental (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 385 with a grade of "C" or better
Advisory: MUFHL 420
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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 2 Units
Course Family: Jazz Voice (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 310 with a grade of "C" or better
Advisory: MUFHL 321 and MUIVI 310
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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. (C-ID MUS 160)

MUIVI 391 Jazz and Popular Vocal Styles and Improvisation II 2 Units
Course Family: Jazz Voice (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 390 with a grade of "C" or better
Advisory: MUIVI 311
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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. (C-ID MUS 160)

MUIVI 400 Beginning Jazz Piano 2 Units
Course Family: Jazz Piano (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 340 with a grade of "C" or better
Advisory: MUFHL 400, MUFHL 420, or MUIVI 385
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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 2 Units
Course Family: Jazz Piano (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 400 with a grade of "C" or better
Advisory: MUFHL 420
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
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-Group 1 Unit
Corequisite: 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.
Enrollment Limitation: Performance assessment
Hours: 18 hours LEC
This course focuses on the development of individual performance skills and repertoire. It includes instrumental, composition, or vocal instruction in a group setting. It also includes solo performance, recital participation, masterclasses, and a final juried performance.
MUIVI 420  Applied Music 1 Unit
Course Family: Traditional Applied Music Fundamentals (see page 38 - limitation on active participatory courses)
Corequisite: Enrolled in one of the following: MUP 310, 320, 330, 340, 350, 360, or 400; AND enrolled in one of the following: MUIVI 340, or MUFHL 321, 400, 401, 410, 411, 420, or 421.
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 7 hours LEC; 33 hours LAB
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 or small-group instrumental, composition, or vocal instruction 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 monitored practice time per week. This course is required for all traditional performance and jazz music majors. Student must be concurrently enrolled in a large performance ensemble, and either a music theory course or MUIVI 340 (Beginning Piano). (C-ID MUS 160)

MUIVI 421  Applied Music II 1 Unit
Course Family: Traditional Applied Music Fundamentals (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 420 with a grade of “C” or better
Corequisite: Enrolled in one of the following: MUP 310, 320, 330, 340, 350, 360, or 400; AND enrolled in one of the following: MUIVI 340, or MUFHL 321, 400, 401, 410, 411, 420, or 421.
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 7 hours LEC; 33 hours LAB
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 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 monitored practice time per week. This course is required for all traditional performance and jazz music majors. Student must be concurrently enrolled in a large performance ensemble, and either a music theory course or MUIVI 340 (Beginning Piano). (C-ID MUS 160)

MUIVI 422  Applied Music III 1 Unit
Course Family: Traditional Applied Music Technique and Repertoire (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 421 with a grade of “C” or better
Corequisite: Enrolled in one of the following: MUP 310, 320, 330, 340, 350, 360, or 400; AND enrolled in one of the following: MUFHL 400, 401, 410, or 411
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 7 hours LEC; 33 hours LAB
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 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 monitored 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 and a music theory course. (C-ID MUS 160)

MUIVI 423  Applied Music IV 1 Unit
Course Family: Traditional Applied Music Technique and Repertoire (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 422 with a grade of “C” or better
Corequisite: Enrolled in one of the following: MUP 310, 320, 330, 340, 350, 360, or 400; AND enrolled in one of the following: MUFHL 400, 401, 410, or 411
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 7 hours LEC; 33 hours LAB
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 or small group instrumental, composition, or vocal instruction 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 monitored 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 and a music theory course. (C-ID MUS 160)

MUIVI 425  Applied Music - Jazz I 1 Unit
Course Family: Jazz Applied Music (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 421 with a grade of “C” or better
Corequisite: Enrolled in 2 units from: MUP 320 or 400. Also enrolled in 4 units from: MUFHL 400, 401, or 410; OR enrolled in 2 units from: MUFHL 420 or 421.
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 7 hours LEC; 33 hours LAB
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 seven hours of individualized instrumental or vocal instruction with a private instructor, four hours per semester of solo performance and recital attendance, and a final juried performance. It also includes five and one-half hours monitored practice time per week, and six hours of additional research, rehearsal, and performance evaluation per week as scheduled in the semester syllabus. This course is required for all jazz studies majors. Students must be concurrently enrolled in a large performance jazz ensemble and a music theory course. (C-ID MUS 160)

MUIVI 426  Applied Music - Jazz II 1 Unit
Course Family: Jazz Applied Music (see page 38 - limitation on active participatory courses)
Prerequisite: MUIVI 425 with a grade of “C” or better
Corequisite: Enrolled in 2 units from: MUP 320 or 400. Also enrolled in 4 units from: MUFHL 400, 401, or 410; OR enrolled in 2 units from: MUFHL 420 or 421.
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 7 hours LEC; 33 hours LAB
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 seven hours of individualized instrumental or vocal instruction with a private instructor, four hours per semester of solo performance and recital attendance, and a final juried performance. It also includes five and one-half hours monitored practice time per week, and six hours of additional research, rehearsal, and performance evaluation per week as scheduled in the semester syllabus. This course is required for all jazz studies majors. Students must be concurrently enrolled in a large performance jazz ensemble and a music theory course. (C-ID MUS 160)
MUIVI 495 Independent Studies in Music Instrumental/Voice Instruction 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLRW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the instrumental/voice instruction field with a cooperating site supervisor. Students are advised to consult with the Music Department faculty to review specific certificate and degree work experience requirements.
General Education: AAAS Area III(b) (effective Summer 2018)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement within the instrumental/voice instruction field. 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 work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. First-time participants are also required to attend a weekly orientation, the first class meeting, a mid-semester meeting and a final meeting. Returning participants are required to attend the first class meeting, a mid-semester meeting, and a final meeting and may meet individually with the instructor as needed to complete a work site observation and all program forms, receive updates, and assignments. Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times for credit. When times there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

Music Performance

MUP 310 Orchestra 2 Units
Enrollment Limitation: Ability to play an orchestral instrument.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course is the study and performance of orchestral repertoire. It is open to those who play an orchestral instrument. Public performances and/or field trips are required. This course may be taken up to four times for credit. (C-ID MUS 180)

MUP 311 Advanced Orchestra 1-2 Units
Prerequisite: MUP 310 with a grade of “C” or better; or an audition.
Course Transferable to UC/CSU
Hours: 9-18 hours LEC; 27-54 hours LAB
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 are required. This course may be taken up to four times for credit. (C-ID MUS 180)

MUP 320 Jazz Band 2 Units
Enrollment Limitation: Ability to play at least one instrument commonly used in jazz ensemble; audition required.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
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 are required. This course may be taken four times for credit. (C-ID MUS 180)

MUP 321 Advanced Jazz Band 1-2 Units
Prerequisite: Completion of 8 units of MUP 320 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 9-18 hours LEC; 27-54 hours LAB
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, recording sessions, and field trips may be required. This course may be taken four times for credit. (C-ID MUS 180)

MUP 323 Latin Jazz Ensemble 2 Units
Enrollment Limitation: Ability to play at least one instrument commonly used in jazz ensemble; audition required.
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course is the study and performance of Latin jazz repertoire encompassing a wide variety of Latin American and Afro-Cuban jazz styles. Public performance and field trips are required. This course may be taken up to four times for credit. (C-ID MUS 180)

MUP 324 Advanced Latin Jazz Ensemble 1-2 Units
Prerequisite: Completion of 8 units of MUP 323 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 9-18 hours LEC; 27-54 hours LAB
This course is the further study and performance of Latin jazz repertoire encompassing a wide variety of Latin American and Afro-Cuban jazz styles. Public performance and field trips are required. This course may be taken up to four times for credit. (C-ID MUS 180)

MUP 327 Chamber Jazz Ensemble 2 Units
Enrollment Limitation: Ability to play at least one instrument commonly found in a jazz ensemble; audition required.
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
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 performance and field trips are required. This course may be taken four times for credit. (C-ID MUS 180)

MUP 328 Advanced Chamber Jazz Ensemble 2 Units
Prerequisite: Completion of 8 units of MUP 327 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course examines and evaluates advanced techniques of chamber jazz ensemble organization. Ensemble members select music, formulate rehearsal strategy, conduct rehearsals, and set up and evaluate group performances. Public performances and field trips are required. This course may be taken four times for credit. (C-ID MUS 180)
MUP 330  Concert Band  
2 Units
Enrollment Limitation: Ability to play a concert band instrument.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
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 are required. This course may be taken up to four times for credit. (C-ID MUS 180)

MUP 331  Advanced Concert Band  
1-2 Units
Prerequisite: MUP 330 (Concert Band) with a grade of “C” or better; or audition.
Course Transferable to UC/CSU
Hours: 9-18 hours LEC; 27-54 hours LAB
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 are required. This course may be taken up to four times for credit. (C-ID MUS 180)

MUP 340  Symphonic Band  
2 Units
Enrollment Limitation: Ability to play a symphonic band instrument.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course is the study and performance of symphonic band repertoire. It is open to those who play a symphonic band instrument. Public performances and/or field trips are required. This course may be taken up to four times for credit. (C-ID MUS 180)

MUP 341  Advanced Symphonic Band  
1-2 Units
Prerequisite: MUP 340 (Symphonic Band) with a grade of “C” or better; or audition.
Course Transferable to UC/CSU
Hours: 9-18 hours LEC; 27-54 hours LAB
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 are required. This course may be taken up to four times for credit. (C-ID MUS 180)

MUP 350  Concert Choir I  
2 Units
Enrollment Limitation: Ability to match pitch and produce a good tone demonstrated in the audition
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
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. (C-ID MUS 180)

MUP 352  Advanced Concert Choir  
2 Units
Prerequisite: MUP 350 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
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 conduct pieces and lead sectionals. Public performances, festivals, and field trips are required. This course may be taken four times for credit. (C-ID MUS 180)

MUP 360  Chamber Singers  
2 Units
Enrollment Limitation: Audition required. Auditions generally occur the first week of class. The audition includes sight singing, the preparation of a short musical excerpt, and an aural skills assessment.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course is an advanced choral ensemble of limited size performing a wide variety of music--classical, world music, folksong arrangements, and contemporary compositions. Audition required. Public performances, festivals, and field trips may be required. This course may be taken up to four times for credit. (C-ID MUS 180)

MUP 361  Advanced Chamber Singers  
2 Units
Prerequisite: 8 units of MUP 360 with a grade of “C” or better
Enrollment Limitation: Audition required. Auditions generally occur the first week of class. The audition includes sight singing, the preparation of a short musical excerpt, and an aural skills assessment.
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
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 sectionals. Public performances, festivals, and field trips are required. This course may be taken four times for credit. (C-ID MUS 180)

MUP 370  Rehearsal and Performance - Musical Ensemble  
.5-3 Units
Course Family: Musical Performance and Technical Production (see page 38 - limitation on active participatory courses)
Same As: TA 466
Enrollment Limitation: Audition/Interview
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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  
2 Units
Enrollment Limitation: Audition is required. The audition will include sight singing, aural skills, improvisation and the preparation of a short musical excerpt.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course is a vocal jazz ensemble of limited size performing a wide variety of music in the jazz style. Public performance, festival and field trips are required. This course may be taken up to four times for credit. (C-ID MUS 180)
MUP 401  Advanced Vocal Jazz Ensemble  1-2 Units  
**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.  
**Course Transferable to UC/CSU**  
**Hours:** 9-18 hours LEC; 27-54 hours LAB  
This course is the continuing study of vocal jazz ensemble repertoire and techniques. Additional topics include experiences in scat singing, conducting, rehearsal technique and section leading. Public performances, festivals, recording sessions and field trips are required. This course may be taken up to four times for credit.  
(C-ID MUS 180)

MUP 420  Special Ensemble Participation  1-2 Units  
**Enrollment Limitation:** Audition  
**Course Transferable to UC/CSU**  
**Hours:** 9-18 hours LEC; 27-54 hours LAB  
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 are required. This course may be taken up to four times for credit.

MUP 495  Independent Studies in Music Performance  1-3 Units  
**Prerequisite:** None  
**Course Transferable to CSU**  
**Hours:** 54-162 hours LAB  
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.

### Specializations in Music

**MUSM 110 The Business of Music**  3 Units  
**Hours:** 54 hours LEC  
This course gives an overview of the processes of the music industry. This includes record contracts as well as the duties and responsibilities of record producers, agents, managers, and performing artists.

**MUSM 111 The Business of Music**  3 Units  
**Prerequisite:** MUSM 110 with a grade of “C” or better  
**Hours:** 54 hours LEC  
The course gives an in-depth view of the fundamentals and organization of the music business. This includes the duties of attorneys, publishers, and radio stations regarding musical and financial matters. The course also defines and analyzes publishing agreements, merchandising contracts, trademark, and service mark points.

**MUSM 112 The Business of Music/Artist Management**  3 Units  
**Hours:** 54 hours LEC  
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.

**MUSM 113 The Business of Music/Promotion**  3 Units  
**Hours:** 54 hours LEC  
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. Field trips may be required.

**MUSM 120 Contemporary Songwriting**  3 Units  
**Prerequisite:** MUFHL 321 with a grade of “C” or better  
**Hours:** 54 hours LEC  
This course examines the processes of the songwriting industry in popular music today, including instrumental and vocal arrangements in jazz, pop, and rock musical styles. Other related topics such as lyrics, formation of melodies and harmonies, popular music form, and musical notation are covered. (C-ID CMUS 150X)

**MUSM 121 Contemporary Songwriting**  3 Units  
**Prerequisite:** MUSM 120 with a grade of “C” or better  
**Hours:** 36 hours LEC; 18 hours LAB  
This course covers the processes of writing popular songs, including lyric evaluation, song forms, and music styles. Production techniques, publishing, and marketing strategies are also included.

**MUSM 140 Concert Sound Reinforcement**  2 Units  
**Prerequisite:** MUSM 342 with a grade of “C” or better  
**Hours:** 36 hours LEC; 18 hours LAB  
This course is an overview of live concert sound reinforcement. Topics include basic sound system theory and its application. It also covers individual sound system component operation, including microphones, mixers, effects, power amplifiers, and speaker systems. This course offers opportunities for hands-on experiences in troubleshooting, sound checking, and mixing sound for live performance and touring. Field trips may be required. (C-ID CMUS 120X)

**MUSM 295 Independent Studies in Music Specializations in Music**  1-3 Units  
**Hours:** 54-162 hours LAB  
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 334 Introduction to Musical Instrument Digital Interface (MIDI)**  2 Units  
**Advisory:** MUFHL 321 or MUFHL 340  
**Course Transferable to CSU**  
**Hours:** 18 hours LEC; 54 hours LAB  
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 hardware and software platforms. (C-ID CMUS 100X)
MUSM 335 Intermediate Musical Instrument Digital Interface (MIDI) 2 Units
Prerequisite: MUSM 334 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course builds on skills learned in MUSM 334 and introduces intermediate techniques in MIDI 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 3 Units
General Education: CSU Area C1
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required. (C-ID CMUS 130X)

MUSM 344 Recording Studio Techniques II 3 Units
Prerequisite: MUSM 342 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required.

MUSM 350 Recording Studio Techniques III 3 Units
Prerequisite: MUSM 344 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This is the third course in a four-part series of Recording Studio Techniques. It covers advanced techniques of audio engineering and is designed for recording engineers seeking careers in audio and post production. It includes advanced concepts of analog and digital recording, mixing, and mastering. Field trips may be required.

MUSM 352 Recording Studio Techniques IV 3 Units
Prerequisite: MUSM 350 and 356 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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. Topics also include 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 356 Pro Tools 101 1.5 Units
Prerequisite: MUSM 342 with a grade of “C” or better
Course Transferable to CSU
Hours: 27 hours LEC
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. Topics also include 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 357 Pro Tools 110 Intermediate Pro Tools 1.5 Units
Prerequisite: MUSM 356 with a grade of “C” or better
Course Transferable to CSU
Hours: 27 hours LEC
This is an intermediate-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 358 Pro Tools 201, Advanced Pro Tools 1.5 Units
Prerequisite: MUSM 344 and 357 with grades of “C” or better
Course Transferable to CSU
Hours: 27 hours LEC
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 359 Independent Studies in Music Specializations 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
Area: Science and Engineering  
Dean: Dr. Rina Roy  
Phone: (916) 484-8107  
Counseling: (916) 484-8572  

DEGREES AND CERTIFICATES

Environmental Conservation A.S. Degree  
(formerly Natural Resources)  
Major Code: 011131A01

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.

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 Opportunities
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.

Requirements for Degree  31 - 33 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIOL 300</td>
<td>The Foundations of Biology</td>
<td>3 - 5</td>
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<tr>
<td>or BIOL 301</td>
<td>Evolution</td>
<td>3</td>
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<tr>
<td>or BIOL 303</td>
<td>Survey of Biology</td>
<td>4</td>
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<tr>
<td>or BIOL 310</td>
<td>General Biology</td>
<td>4</td>
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<tr>
<td>or BIOL 400</td>
<td>Principles of Biology</td>
<td>5</td>
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<tr>
<td>NATR 300</td>
<td>Introduction to Natural Resource Conservation and Policy</td>
<td>4</td>
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<tr>
<td>NATR 310</td>
<td>Study Design and Field Methods</td>
<td>4</td>
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<tr>
<td>NATR 320</td>
<td>Principles of Ecology</td>
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A minimum of 16 units from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIOL 305</td>
<td>Natural History</td>
<td>4</td>
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<tr>
<td>BIOL 332</td>
<td>Introduction to Ornithology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 352</td>
<td>Conservation Biology</td>
<td>3</td>
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<tr>
<td>BIOL 370</td>
<td>Marine Biology</td>
<td>4</td>
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<tr>
<td>GEOG 300</td>
<td>Physical Geography: Exploring Earth’s Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 330</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 330</td>
<td>Physical Geography</td>
<td>3</td>
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<tr>
<td>HORT 302</td>
<td>Soils, Soil Management, and Plant Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NATR 302</td>
<td>Introduction to Wildlife Biology</td>
<td>4</td>
</tr>
<tr>
<td>NATR 303</td>
<td>Energy and Sustainability</td>
<td>3</td>
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<tr>
<td>NATR 304</td>
<td>The Forest Environment</td>
<td>3</td>
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<td>NATR 305</td>
<td>Fisheries Ecology and Management</td>
<td>4</td>
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<tr>
<td>NATR 306</td>
<td>Introduction to Rangeland Ecology and Management</td>
<td>3</td>
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<tr>
<td>NATR 307</td>
<td>Principles of Sustainability</td>
<td>4</td>
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<tr>
<td>NATR 322</td>
<td>Environmental Restoration</td>
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<td>NATR 324</td>
<td>Field Studies: Birds and Plants of the High Sierra</td>
<td>1.5</td>
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<tr>
<td>NATR 330</td>
<td>Native trees and shrubs of California</td>
<td>4</td>
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<tr>
<td>NATR 332</td>
<td>Wildflowers of California</td>
<td>3</td>
</tr>
<tr>
<td>NATR 346</td>
<td>Water Resources and Conservation</td>
<td>3</td>
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<tr>
<td>NATR 498</td>
<td>Work Experience in Natural Resources</td>
<td>1 - 4</td>
</tr>
</tbody>
</table>

1At least 10 of the 16 units must come from NATR courses.

Associate Degree Requirements: The Environmental Conservation Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Environmental Conservation Certificate (formerly Natural Resources)

Major Code: 011131C01

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.

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
- examine the significance of biodiversity conservation

Career Opportunities

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011131C01 for Gainful Employment Disclosure.

Requirements for Certificate 22 Units

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<tbody>
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<td>NATR 300</td>
<td>Introduction to Natural Resource Conservation and Policy</td>
<td>4</td>
</tr>
<tr>
<td>NATR 310</td>
<td>Study Design and Field Methods</td>
<td>4</td>
</tr>
<tr>
<td>NATR 320</td>
<td>Principles of Ecology</td>
<td>4</td>
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A minimum of 10 units from the following: 10

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>NATR 302</td>
<td>Introduction to Wildlife Biology</td>
</tr>
<tr>
<td>NATR 303</td>
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<td>NATR 304</td>
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<td>Principles of Sustainability</td>
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<tr>
<td>NATR 322</td>
<td>Environmental Restoration</td>
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<td>NATR 324</td>
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</tr>
<tr>
<td>NATR 330</td>
<td>Native trees and shrubs of California</td>
</tr>
<tr>
<td>NATR 332</td>
<td>Wildflowers of California</td>
</tr>
<tr>
<td>NATR 346</td>
<td>Water Resources and Conservation</td>
</tr>
<tr>
<td>NATR 498</td>
<td>Work Experience in Natural Resources</td>
</tr>
</tbody>
</table>

General Science Degree

Major Code: 011229A01

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.

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.

Requirements for Degree 18 Units

A minimum of 18 units from the following: 18

<table>
<thead>
<tr>
<th>Physical Science Courses:</th>
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<tbody>
<tr>
<td>ASTR 300, 310, 320, 330, 400, 481, 495, 499</td>
</tr>
<tr>
<td>CHEM 305, 306, 309, 310, 400, 401, 420, 421, 423, 495, 499</td>
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<tr>
<td>GEOG 300, 301, 305, 306, 307, 308, 309, 391, 392, 393, 394, 395, 499</td>
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<tr>
<td>GEOL 300, 301, 305, 306, 310, 311, 320, 325, 330, 331, 345, 390, 395, 499</td>
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<tr>
<td>PHYS 310, 311, 312, 350, 360, 410, 421, 431, 495, 499</td>
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<td>PS 300, 301, 495, 499</td>
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<table>
<thead>
<tr>
<th>Biological Science Courses:</th>
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<tbody>
<tr>
<td>ANTH 300, 301, 303, 370, 372, 480, 495, 499</td>
</tr>
<tr>
<td>BIOL 300, 301, 303, 305, 310, 322, 323, 342, 352, 370, 375, 390, 400, 410, 415, 420, 430, 431, 440, 442, 482, 495, 499</td>
</tr>
<tr>
<td>BIOT 301, 305, 307, 311, 312, 499</td>
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<tr>
<td>NATR 300, 302, 303, 304, 305, 306, 307, 310, 320, 322, 324, 330, 332, 346, 495, 499</td>
</tr>
<tr>
<td>PSYC 310, 311, 495, 499</td>
</tr>
</tbody>
</table>

*must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

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

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 Opportunities

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.

Requirements for Certificate  14-15 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>NATR 300</td>
<td>Introduction to Natural Resource Conservation and Policy</td>
<td>4</td>
</tr>
<tr>
<td>NATR 310</td>
<td>Study Design and Field Methods</td>
<td>4</td>
</tr>
<tr>
<td>NATR 320</td>
<td>Principles of Ecology</td>
<td>4</td>
</tr>
<tr>
<td>NATR 322</td>
<td>Environmental Restoration (2)</td>
<td>2 - 3</td>
</tr>
<tr>
<td>or BIOL 352</td>
<td>Conservation Biology (3)</td>
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</tbody>
</table>
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.

### Requirements for Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>NATR 300</td>
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<tr>
<td>NATR 305</td>
<td>Fisheries Ecology and Management</td>
<td>4</td>
</tr>
<tr>
<td>NATR 310</td>
<td>Study Design and Field Methods</td>
<td>4</td>
</tr>
<tr>
<td>NATR 320</td>
<td>Principles of Ecology</td>
<td>4</td>
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</tbody>
</table>

## 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 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.

### 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 Opportunities

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: 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.

### 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

(continued on next page)
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.

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 Opportunities

This program prepares students for entry-level sustainbility 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.

Requirements for Certificate  15 - 16 Units

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>NATR 300</td>
<td>Introduction to Natural Resource Conservation and Policy</td>
<td>4</td>
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<tr>
<td>NATR 303</td>
<td>Energy and Sustainability (3)</td>
<td>3</td>
</tr>
<tr>
<td>or NATR 307</td>
<td>Principles of Sustainability (4)</td>
<td>4</td>
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<tr>
<td>NATR 310</td>
<td>Study Design and Field Methods</td>
<td>4</td>
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<tr>
<td>NATR 320</td>
<td>Principles of Ecology</td>
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</tbody>
</table>

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.

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 their interactions
- 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 Opportunities

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. 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.

Requirements for Certificate  15 - 16 Units

<table>
<thead>
<tr>
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<tr>
<td>NATR 320</td>
<td>Principles of Ecology</td>
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</tr>
<tr>
<td>NATR 330</td>
<td>Native trees and shrubs of California (4)</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or NATR 332</td>
<td>Wildflowers of California (3)</td>
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</table>
Career Opportunities

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.

Requirements for Certificate  15 Units

<table>
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<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>NATR 300 Introduction to Natural Resource Conservation and Policy</td>
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<tr>
<td>NATR 310 Study Design and Field Methods</td>
<td>4</td>
</tr>
<tr>
<td>NATR 320 Principles of Ecology</td>
<td>4</td>
</tr>
<tr>
<td>NATR 346 Water Resources and Conservation</td>
<td>3</td>
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</tbody>
</table>

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.

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 Opportunities

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.

Requirements for Certificate  16 Units

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>NATR 300 Introduction to Natural Resource Conservation and Policy</td>
<td>4</td>
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<tr>
<td>NATR 302 Introduction to Wildlife Biology</td>
<td>4</td>
</tr>
<tr>
<td>NATR 310 Study Design and Field Methods</td>
<td>4</td>
</tr>
<tr>
<td>NATR 320 Principles of Ecology</td>
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</table>

Natural Resources

NATR 300 Introduction to Natural Resource Conservation and Policy  4 Units

General Education: AA/AS Area IV
Course Transferable to UC/CSU

Hours: 72 hours LEC

This course provides a survey of concepts, issues, laws and regulations relevant to natural resources, such as soils, water, wildlife, fisheries, rangelands, and forests, with a focus on their sustainable management and conservation. Overexploitation, pollution, land use, and waste issues are integrated throughout the course. Principles, problems, and solutions are explored in the context of economics, ethics, and past, present, and future natural resource issues. Critical thinking and ecological dynamics are stressed. Sustainability, global environmental problems, and energy are major themes. It also examines the environmental regulatory process in California. Federal and California environmental laws are studied and discussed. Field trips may be required.

NATR 302 Introduction to Wildlife Biology  4 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRD 300; OR ESLR 340 AND ESLW 340; AND eligible for transfer-level Math.

General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to UC/CSU

Hours: 54 hours LEC; 54 hours LAB

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 emphasizes ecological aspects of wildlife populations and communities such as predator-prey relationships, population dynamics, diseases and parasites of wildlife, and wildlife habitat. Animal behavior, nutritional ecology, and other aspects of wildlife biology are also explored. Human dimensions of wildlife management including wildlife restoration and conservation, human-wildlife conflicts, hunting, invasive species, impacts of global climate change, and other relevant issues are examined. Social, economic, and ecological implications of management alternatives are investigated. Additionally, this course provides hands-on experience with habitat and population sampling, data analysis and interpretation; radio telemetry; wildlife capture and handling; and critical analysis of wildlife management policies and the development of a wildlife management plan. Field trips are required.
NATR 303  Energy and Sustainability 3 Units
Same As: ENERGY 303
Advisory: MATH 120, 125, 129, 133 or higher; NATR 300, or an equivalent transferable life science course; and Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area IV
Course Transferable to CSU

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 3 Units
Advisory: (1) MATH 120 or higher; (2) eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area IV
Course Transferable to U/C/CSU

Hours: 54 hours LEC

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 World, 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 4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340; AND eligible for transfer-level Math.
General Education: AAAS Area IV (effective Summer 2016); CSU Area B2; CSU Area B3
Course Transferable to CSU

Hours: 54 hours LEC; 54 hours LAB

This course covers the fundamentals of marine and freshwater fisheries, ecosystems, and their impacts on society and the environment. Fish life history, ecology, habitats, and population dynamics are examined. Fisheries' sustainability issues are investigated, including environmental, ecological, economic, and social aspects. Commercial and recreational fisheries management and aquaculture are covered. Field trips are required.

NATR 306  Introduction to Rangeland Ecology and Management 3 Units
Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

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 are required.

NATR 307  Principles of Sustainability 4 Units
General Education: AAAS Area V(b); CSU Area D7; IGETC Area 4
Course Transferable to U/C/CSU

Hours: 54 hours LEC; 54 hours LAB

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 4 Units
Advisory: NATR 300; MATH 120 or higher; eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area IV; CSU Area B2; CSU Area B3
Course Transferable to CSU

Hours: 54 hours LEC; 54 hours LAB

This course addresses 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. 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 4 Units
General Education: AAAS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
Course Transferable to U/C/CSU

Hours: 54 hours LEC; 54 hours LAB

This course covers basic principles of ecology, including the physical and biological factors of different environments in relation to the distribution and abundance of plants and animals. Emphasis is on the management of ecosystems using ecological principles and the understanding of current ecological issues. Field trips are required.

NATR 322  Environmental Restoration 2 Units
Advisory: NATR 300, 302, 310, 320, and 330
Course Transferable to CSU

Hours: 27 hours LEC; 27 hours LAB

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. 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**  
*Course Transferable to UC/CSU*  
*Hours: 9 hours LEC; 54 hours LAB*

This field study course focuses on identification, distribution, abundance, ecological relationships, 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**  
*Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340*  
*General Education: AA/AS Area IV*  
*Course Transferable to UC/CSU*  
*Hours: 54 hours LEC, 54 hours LAB*

This dendrology course covers classification and ecology of major natural plant communities of California and their component tree and shrub species. Emphasis is placed on biotic and abiotic factors of native woody plant distribution and abundance in northern California, focusing on characterization of the dominant vegetation types and identification of native woody species. Major topics include plant adaptation, evolution, and diversity in time and space; morphology and physiology; life history; soils, climate, and topography; endemism; interspecific and intraspecific interactions; invasive species; disease; anthropogenic and natural environmental change; human uses of native plants; and native plant restoration and conservation. This course involves the creation of a plant collection including at least 60 representative native woody species. Field trips are required.

**NATR 332 Wildflowers of California**  
*Advisory: NATR 330*  
*General Education: AA/AS Area IV*  
*Course Transferable to UC/CSU*  
*Hours: 36 hours LEC, 54 hours LAB*

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**  
*Advisory: MATH 120, 125, 129, 133 or higher; NATR 300, or an equivalent transferable life science course; and eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300, OR ESLR 340 AND ESLW 340. General Education: AA/AS Area IV*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC*

This course provides an introduction to water resource management with an emphasis on water issues in California. 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. Field trips may be required.

**NATR 495 Independent Studies in Natural Resources**  
*Prerequisite: None*  
*Course Transferable to CSU*  
*Hours: 54-162 hours LAB*

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**  
*Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340. Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to natural resources with a cooperating site supervisor. Students are advised to consult with the Natural Resources Department faculty to review specific certificate and degree work experience requirements.*  
*General Education: AA/AS Area III(b)*  
*Course Transferable to CSU*  
*Hours: 60-300 hours LAB*

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
DEGREES AND CERTIFICATES

Registered Nursing Degree
Major Code: 011199A01

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 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.

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 Opportunities
“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

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: ENGWR 300 or ENGWR 480, NUTRI 300, and PSYC 300 or PSYC 480.
- 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 college website at arc.losrios.edu
- 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.

Requirements for Degree 71-72 units

Prerequisites for Nursing:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIOL 430</td>
<td>Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 431</td>
<td>Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 440</td>
<td>General Microbiology (4)</td>
<td>4-5</td>
</tr>
<tr>
<td>or BIOL 442</td>
<td>General Microbiology and Public Health (5)</td>
<td></td>
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<tr>
<td>ENGWR 300</td>
<td>College Composition (3)</td>
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<tr>
<td>or ENGWR 480</td>
<td>Honors College Composition (3)</td>
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<tr>
<td>NUTRI 300</td>
<td>Nutrition</td>
<td>3</td>
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<tr>
<td>or PSYC 300</td>
<td>General Principles (3)</td>
<td>3</td>
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<tr>
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1st Semester:

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<tr>
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<tr>
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<td>Nursing, Patient, and Healthcare Concepts I</td>
<td>10.5</td>
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<td>Public Speaking</td>
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2nd Semester:

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<tr>
<td>NURSE 410</td>
<td>Nursing, Patient, and Healthcare Concepts II</td>
<td>10.5</td>
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<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology (3)</td>
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<td>or ANTH 481</td>
<td>Honors Cultural Anthropology (3)</td>
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<tr>
<td>or SOC 300</td>
<td>Introductory Sociology (3)</td>
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<tr>
<td>or SOC 480</td>
<td>Introductory Sociology - Honors (3)</td>
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3rd Semester:

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<tr>
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<td>BIOL 430</td>
<td>Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 440</td>
<td>General Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 442</td>
<td>General Microbiology and Public Health</td>
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4th Semester:

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>NURSE 420</td>
<td>Nursing, Patient, and Healthcare Concepts III</td>
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</tr>
</tbody>
</table>

LVN to RN Career Mobility Degree

Major Code: 01X1200A01

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.
(LVN to RN Career Mobility Degree continued)

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 Opportunities

“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).

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 “C” 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; ENGWR 300 or ENGWR 480; NUTRI 300; PSYC 300 or PSYC 480; and SPEECH 301.
• 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 on the college website: arc.losrios.edu.

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 campus website at arc.losrios.edu.
• 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.

Requirements for Degree 76-77 Units

<table>
<thead>
<tr>
<th>Prerequisites for LVN to RN Mobility Program:</th>
<th>76-77 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 310 Cultural Anthropology (3)</td>
<td>3</td>
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<tr>
<td>or ANTH 481 Honors Cultural Anthropology (3)</td>
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<tr>
<td>BIOL 430 Anatomy and Physiology</td>
<td>5</td>
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<tr>
<td>BIOL 431 Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 440 General Microbiology (4)</td>
<td>4 - 5</td>
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<tr>
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<td>PSYC 300 General Principles (3)</td>
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<td>or PSYC 480 Honors General Principles (3)</td>
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</tr>
<tr>
<td>SPEECH 301 Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

Positive Credit after LVN Transcript Evaluation:

NURSE 400 Nursing, Patient, and Healthcare Concepts I | 10.5  |
NURSE 410 Nursing, Patient, and Healthcare Concepts II | 10.5  |

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  |

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.

 Associate Degree Requirements: The LVN to RN Career Mobility Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Licensed Vocational Nurse (LVN) 30-unit option Certificate

Major Code: 011201C01

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 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.

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 Opportunities

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.

See losrios.edu/gainful-emp-info/gdct.php?major=011201C01 for Gainful Employment Disclosure.

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.
• Completion of a minimum of six months recent LVN work experience.
• 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.
• 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.

Requirements for Certificate 30 Units

| Semester 1 |  |
|———|———|
| BIOL 431 | Anatomy and Physiology ............................................. 5 |
| BIOL 440 | General Microbiology ................................................ 4 |
| Semester 2 |  |
| NURSE 420 | Nursing, Patient, and Healthcare Concepts III ................ 10.5 |
| Semester 3 |  |
| NURSE 430 | Nursing, Patient, and Healthcare Concepts IV ................ 10.5 |

*BIOl 430, 440, and 442 have prerequisites. Please check catalog course descriptions.
DEPARTMENT 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.

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.
• discuss 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 Opportunities
Certified Nurse Assistants have a wide variety of work opportunities. The most common work placement is in long-term care facilities. Additionally, the work may be found in acute care settings, assisted care facilities, and rehabilitation care centers.

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.
• Student must go to the ARC Nursing website to read the NURSE 100 application process and follow the directions.
• Student will be required to submit a negative TB skin test completed within six months prior to class entrance or a negative chest x-ray completed within one year 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 have successfully completed the English prerequisite. Required English classes: ESLW 50, ESLR 50, and ESLL 50; or ENGRD 50 and ENGRD 15; or ENGW/ ENGRD 56; or English assessment to the equivalent by ARC Assessment Center. Or, provide proof of A.A. degree or higher degree from an accredited college in the United States.
• Student must meet the California Department of Public Health (CDPH) regulation that requires the student 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 pass a criminal screening prior to acceptance into the course. Certain Penal Codes violations may automatically disqualify an individual for certification through the CDPH. A list of these Penal Codes can be found on the CDPH website.
• Student cannot apply and be admitted to NURSE 100 more than twice.

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.

Requirements for Certificate  7 Units
NURSE 100 Nurse Assistant ................................................................. 7

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.

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 Opportunities
The Home Health Aide may expand on the CNA work experiences and settings to include the homebound client.
Enrollment Eligibility
To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must submit one of the following items prior to the start of class: (A.) A copy of Certified Nurse Assistant (CNA) course completion certificate from a California Department of Public Health approved CNA program. Certificate must be signed and dated by the course instructor; OR (B.) A copy of unofficial program or college transcript denoting CNA course and date of completion; OR (C.) A copy of active status, California CNA certificate.
- Student must meet the English prerequisite: (A.) A student who received a CA state CNA certificate prior to 2005 must complete and submit the NURSE 101 English prerequisite. The English prerequisite is ESLW 50, ESLR 50, and ESLL 50; OR ENGWR 51 and ENGRD 15; OR evaluation through assessment at the ARC assessment center. Further information about the English prerequisite and the ARC assessment center can be found at the ARC Nursing website in the NURSE 101 course information packet; OR (B.) A student who received a CA state certified nurse assistant certificate in 2005, or after 2005, has already met the California state English requirement. It was required prior to entering a CNA program. Therefore, no English prerequisite submission is needed for NURSE 101.
- Student must submit completed health history and physical exam done within the last one year 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 in the NURSE 101 online information packet.
- Student must submit Tuberculin [TB] skin clearance test within the past six months prior to start of class. Or student must submit a TB clearance chest x-ray within one year prior to start of class.
- Student must submit proof of current influenza vaccine.
- Student must review the list of penal codes that determine automatic HHA certification denial. If student has been convicted of any crime on the list that student can not be enrolled in the NURSE 101 class. The California Department of Public Health (CDPH) automatic denial penal code list can be found at the ARC Nursing website in the NURSE 101 course information packet. If student has been convicted of any crime that is not listed on the automatic denial penal code list, the student must submit to CDPH the required forms for criminal clearance review. The student must have proof of criminal clearance before entering the NURSE 101 class. Information about conviction review and required review forms can be found at the ARC Nursing web site in the NURSE 101 information packet.

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 Program website, NURSE 101 information packet, for complete information about course prerequisites and prerequisite submission deadline.

Requirements for Certificate 2 Units
NURSE 101 Home Health Aide ................................................................. 2

American River College Catalog 2019-2020
**NURSE 305 Transition to Nursing, Patient, and Healthcare Concepts for the Associate Degree Nurse** 5 Units

*Enrollment Limitation: Acceptance into the career mobility track of the Associate Degree Nursing Program.*

*Course Transferable to CSU*

*Hours: 54 hours LEC; 108 hours LAB*

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** 3 Units

*Course Transferable to CSU*

*Hours: 54 hours LEC*

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. How these drugs affect the body systems are also covered. Administration of the medications according to nursing professional standards and health care professionals are discussed.

**NURSE 320 Medical Dosage Calculations** 1.5 Units

*Advisory: MATH 25 and 41*

*Course Transferable to CSU*

*Hours: 27 hours LEC*

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 341 Introduction to the Childbirth Support Profession: A DONA-Approved Birth Doula Workshop** 1.5 Units

*Course Transferable to CSU*

*Hours: 27 hours LEC*

This course prepares individuals to become professional labor support providers (birth doulas) and meets the didactic requirements for certification as a birth doula through DONA (Doulas of North America) International. Course content is also beneficial for current healthcare providers and those preparing for professions in the perinatal field. This course provides a foundation in reproductive anatomy and physiology, fetal development, perinatal care practices, and clinical terminology. It covers professional standards and ethics, business practices, values clarification, and communication skills. It introduces techniques for providing comfort, examines methods for facilitating the labor process and supporting the mother-baby dyad, and focuses on the emotional and psychological aspects of the birth experience with its significance for women’s future self-concept and self-efficacy.

**NURSE 370 Focused Learning in the First Year of the ARC Nursing Program** 1.5 Units

*Corequisite: NURSE 400 or 410*

*Course Transferable to CSU*

*Hours: 27 hours LEC*

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 health care professional. Pass/No Pass only.

**NURSE 372 Focused Learning in the Second Year of the ARC Nursing Program** 1.5 Units

*Corequisite: NURSE 420 or 430*

*Course Transferable to CSU*

*Hours: 27 hours LEC*

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 391 Supporting the Mother-Baby Connection: Evidence-Based Practices for Perinatal Care** 1 Unit

*Same As: HLACT 301*

*Course Transferable to CSU*

*Hours: 18 hours LEC*

This course is designed for practicing health care professionals as well as students preparing to enter the fields of nursing, nutrition, health education, or early childhood development. It focuses on the physiology of attachment, bonding, and breastfeeding and the short- and long-term impacts of perinatal care practices on the mother-baby dyad. It grapples with the challenges of applying best-practice guidelines and model hospital policies to alleviate barriers for mothers choosing exclusive breastfeeding and creating environments that support maternal-infant biology and the newborn’s natural capabilities, allowing improved outcomes with less time and effort. This course meets Board of Registered Nursing continuing education requirements and, when combined with requisite supervised clinical experience, fulfills all criteria for staff education as set by the Baby Friendly Hospital Initiative. This course is not open to students who have completed HLACT 301.
NURSE 400 Nursing, Patient, and Healthcare Concepts I 10.5 Units
Corequisite: SPEECH 301
Enrollment Limitation: Acceptance into the Associate Degree Nursing Program
Course Transferable to CSU
Hours: 81 hours LEC; 324 hours LAB
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 laboratory experience is designed to facilitate the fundamental acquisition of the core competencies of clinical practice. Emphasis 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.

NURSE 410 Nursing, Patient, and Healthcare Concepts II 10.5 Units
Prerequisite: NURSE 400 and SPEECH 301 with grades of "C" or better
Corequisite: ANTH 310, ANTH 481, SOC 300, or SOC 480
Course Transferable to CSU
Hours: 81 hours LEC; 324 hours LAB
This course applies concepts of safe and effective nursing care for 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 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 family communication, patient education, teamwork and collaboration, clinical judgment, and management of care.

NURSE 420 Nursing, Patient, and Healthcare Concepts III 10.5 Units
Prerequisite: NURSE 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.
Course Transferable to CSU
Hours: 81 hours LEC; 324 hours LAB
This course adapts concepts of safe and effective nursing care for 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 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 clinical judgment, inter-professional communication, patient-centered care, safety, and team collaboration.

NURSE 430 Nursing, Patient, and Healthcare Concepts IV 10.5 Units
Prerequisite: NURSE 420 with a grade of "C" or better
Course Transferable to CSU
Hours: 81 hours LEC; 324 hours LAB
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 laboratory 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 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, inter-professional collaboration, legal precepts, and health policy.
DEGREES AND CERTIFICATES

Nutrition and Dietetics A.S. for Transfer Degree
Major Code, CSU GE: 011143A01
Major Code, IGETC: 011143A02

The Associate in Science in Nutrition and Dietetics for 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. The Associate in Science in Nutrition and Dietetics for Transfer (AS-T) degree may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

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 Opportunities
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, WIC programs, Meals on Wheels, health clubs, weight management clinics, community wellness centers, food companies, contract food management companies, and food distribution companies.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIOL 440</td>
<td>General Microbiology</td>
<td>4</td>
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<tr>
<td>CHEM 400</td>
<td>General Chemistry I</td>
<td>4</td>
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<tr>
<td>NUTRI 300</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 480</td>
<td>Honors General Principles (3)</td>
<td>3</td>
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</table>

A minimum of 8 units from the following: 8

- CHEM 401 General Chemistry II (5)
- CHEM 420 Organic Chemistry I (5)
- CHEM 423 Organic Chemistry II (5)
- PSYC 330 Introductory Statistics for the Behavioral Sciences (3)
- or STAT 300 Introduction to Probability and Statistics (4)

A minimum of 3 units from the following: 3

- ACCT 301 Financial Accounting (4)
- CHEM 423 Organic Chemistry II (5)
- HM 310 Sanitation, Safety and Equipment (3)
- HM 315 Food Theory and Preparation (4)
- or NUTRI 310 Cultural Foods of the World (3)
- or POLS 301 Introduction to Government: United States (3)
- or POLS 481 Introduction to Government: United States - Honors (3)
- or SOC 300 Introductory Sociology (3)
- or SOC 480 Introductory Sociology - Honors (3)
- or SPEECH 301 Public Speaking (3)

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

Dietary Manager/Dietary Service Supervisor Certificate
Major Code: 011144A01

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 certificate program meets the California Department of Public Health’s certification requirements.

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. Assist 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. Ensure that food 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. This includes 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 Opportunities
The Dietary Manager/Dietary Service Supervisor certificate is designed to prepare the student for a position as Certified Dietary Manager in a Long Term Care Facility. See losrios.edu/gainful-emp-info/gedt.php?major=011144C01 for Gainful Employment Disclosure.

Requirements for Certificate 20 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tr>
<td>HM 310</td>
<td>Sanitation, Safety and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>HM 315</td>
<td>Food Theory and Preparation</td>
<td>4</td>
</tr>
<tr>
<td>NUTRI 130</td>
<td>Introduction to Dietary Management</td>
<td>2</td>
</tr>
<tr>
<td>NUTRI 132</td>
<td>Management of the Dietetic Department</td>
<td>3</td>
</tr>
<tr>
<td>NUTRI 133</td>
<td>Clinical Experience in Health Care Facilities</td>
<td>2.5</td>
</tr>
<tr>
<td>NUTRI 134</td>
<td>Nutritional Care Management</td>
<td>3</td>
</tr>
<tr>
<td>NUTRI 135</td>
<td>Clinical Experience in Nutritional Care Management</td>
<td>2.5</td>
</tr>
</tbody>
</table>
NUTRI 132  Management of the Dietary Department in Health Care Facilities 3 Units  
Prerequisite: NUTRI 130 with a grade of “C” or better  
Corequisite: NUTRI 133  
Enrollment Limitation: Current ServSafe Certification  
Hours: 54 hours LEC  
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  Clinical Experience in Health Care Facilities 2.5 Units  
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.  
Hours: 18 hours LEC; 90 hours LAB  
This course offers clinical experience in health care facilities and is performed under professional supervision. Topics include 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 may be offered in a TBA component of 90 hours which will include professionally supervised clinical experience in dietary departments of acute care hospitals and long term care facilities.

NUTRI 134  Nutritional Care Management 3 Units  
Prerequisite: NUTRI 130 with a grade of “C” or better  
Corequisite: NUTRI 135  
Hours: 54 hours LEC  
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  Clinical Experience in Nutritional Care Management 2.5 Units  
Prerequisite: NUTRI 130 with a grade of “C” or better  
Corequisite: NUTRI 134  
Enrollment Limitation: Current TB clearance and other immunizations required by clinical facility.  
Hours: 18 hours LEC; 90 hours LAB  
This course provides clinical experience in nutritional care management. Topics include disorders of the gastrointestinal tract, diabetes, wasting disorders, nutrition, and mental health. A portion of this course may be offered in a TBA component of 90 hours which will include professionally supervised clinical experience in dietary departments of acute care hospitals and long term care facilities.

NUTRI 295  Independent Studies in Nutrition 1-3 Units  
Prerequisite: None  
Hours: 54-162 hours LAB  
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 300  Nutrition 3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area III(h); AA/AS Area IV; CSU Area E1  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is an in-depth study of the essential nutrients and their functions, and the chemical compositions of foods and their utilization in the body. It includes discussion of the nutritional values of foods, current topics in nutrition, and an individual’s nutrition needs throughout the life cycle. (C-ID NUTR 110)

NUTRI 302  Nutrition for Physical Performance 3 Units  
General Education: AA/AS Area III(h); AA/AS Area IV  
Course Transferable to CSU  
Hours: 54 hours LEC  
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 305  Nutrition for Health 2 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area III(h)  
Course Transferable to CSU  
Hours: 36 hours LEC  
This course presents a study of nutrition and fitness designed to increase an awareness of food, nutrition, and physical activity and their interrelationships. Topics include diet selection and food preparation. This course is designed for those interested in general wellness.

NUTRI 307  Nutrition for Fitness 2 Units  
Same As: KINES 402  
Course Transferable to CSU  
Hours: 36 hours LEC  
This course covers the basic principles of nutrition and the ramifications of nutrition on fitness training. Topics in this course include dietary practices and nutrient intake modifications that impact physical performance, including intake of energy nutrients, vitamins, water, electrolytes, and dietary supplements. This course also includes the study of body weight and body composition, as well as factors that affect body weight and the impact of body weight on physical performance. This course is not open to students who have completed KINES 402, formerly known as PET 402.

NUTRI 310  Cultural Foods of the World 3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D7; IGETC Area 4G  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course offers an anthropological perspective of traditional and contemporary food customs and cultures. Western and non-western 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. This course is not open to students who have completed NUTRI 481.
NUTRI 320  Children’s Health, Safety and Nutrition  3 Units
Same As: ECE 415
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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. (C-ID ECE 220)

NUTRI 321 Nutrition and Biochemistry of Human Lactation  1 Unit
Same As: HLACT 322
Prerequisite: NUTRI 300 with a grade of “C” or better
Advisory: BIOL 102
Course Transferable to CSU
Hours: 18 hours LEC
This course addresses dietary recommendations for lactating women and for infants and young children with an emphasis on breastfeeding as the evidence-based norm. It also covers cultural and physiologic weaning practices and appropriate complementary foods. Primary topics include comparison of human milk with milks of other mammals and with other products and artificial baby milks, the array of individual biochemical and biological components in human milk, and their multiple nutritional and bioactive functions with a focus on immunologic components. Toxicology and pharmacology related to human milk and lactation are addressed. This course is not open to students who have completed HLACT 322.

NUTRI 324 Nutrition for Healthy Aging  3 Units
Same As: GERON 340
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on the nutrition of older adults. Topics include the effects of nutrition on health and well-being and the 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, and cancer and nutrition. This course is not open to students who have completed GERON 340.

NUTRI 481 Honors - Cultural Foods of the World  3 Units
Prerequisite: Placement into ENGWR 480 through the assessment process.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This seminar-style course offers an in-depth anthropological perspective of traditional and contemporary food customs and cultures. Western and non-western 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  1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
Area: Health & Education  
Dean: Jan DeLapp  
Coordinator: Dr. Grant Goold  
Phone: (916) 484-8843 or (916) 484-8902  
Counseling: (916) 484-8572  

Degree: A.S. - Paramedic  
Certificate: Paramedic  
Department Certificate: Emergency Medical Technician (EMT)

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**Paramedic Degree and Certificate**

**Major Code, degree:** 011213A01  
**Major Code, certificate:** 011213C01

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.

**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 Opportunities**  
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.  
See losrios.edu/gainful-emp-info/gedt.php?major=011213C01 for Gainful Employment Disclosure.

**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.  
- A cumulative college GPA of 2.0 and a grade of “C” or better in BIOL 102, or BIOL 430 and BIOL 431, or other college human anatomy and physiology course with a lab which includes all human systems; a grade of “C” or better in NURSE 320 or PMED 105 or equivalent course covering basic pharmacology and drug calculations.  
- 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, field internship fees, and malpractice insurance prior to entering the second semester.

Requirements for Degree Major or Certificate 37.5-44.5 Units

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
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<td>4 - 10</td>
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<tr>
<td>or BIOL 430</td>
<td>Anatomy and Physiology (5)</td>
<td>0.5 - 1.5</td>
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<tr>
<td>and BIOL 431</td>
<td>Anatomy and Physiology (5)</td>
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<tr>
<td>PMED 105</td>
<td>Prehospital Calculations (0.5)</td>
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<tr>
<td>or NURSE 320</td>
<td>Medical Dosage Calculations (1.5)</td>
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<tr>
<td>PMED 110</td>
<td>Introduction to Advanced Prehospital Care</td>
<td>12</td>
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<tr>
<td>PMED 120</td>
<td>Clinical Internship</td>
<td>7</td>
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<tr>
<td>PMED 130</td>
<td>Prehospital Field Internship</td>
<td>14</td>
</tr>
</tbody>
</table>

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

DEPARTMENT CERTIFICATE

Emergency Medical Technician (EMT) Certificate

This program prepares students to function as certified Emergency Medical Technicians. Training topics include 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.

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 Opportunities

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.

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.

Requirements for Certificate 7 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EMT 110</td>
<td>Emergency Medical Technician (EMT) Didactic</td>
<td>6</td>
</tr>
<tr>
<td>EMT 111</td>
<td>Emergency Medical Technician (EMT) Practicum</td>
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</tbody>
</table>

Emergency Medical Technology

EMT 110 Emergency Medical Technician (EMT) Didactic 6 Units

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; MATH 32 (Pre-Algebra), or MATH 42 (Algebra Readiness - Part II)

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 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.

Hours: 81 hours LEC; 81 hours LAB

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. Field trips and off-campus lab assignments may be required.
EMT 111  Emergency Medical Technician (EMT) Practicum 1 Unit
Prerequisite: EMT 110, HEED 310, and HEED 323 with grades of "C" or better
Advisory: AH 110; 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)
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.
Hours: 54 hours LAB
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 3 Units
Prerequisite: HEED 310 and 323 with grades of "C" or better
Advisory: AH 110, BIOL 102, and PMED 105; ENGRW 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)
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 certified AEMTs or paramedics.
Hours: 36 hours LEC, 54 hours LAB
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 3.5 Units
Prerequisite: EMT 150, HEED 310, and HEED 323 with grades of "C" or better
Advisory: AH 110 and BIOL 102; PMED 105 or NURSE 320
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.
Hours: 189 hours LAB
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 1-4 Units
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the emergency medical technology field with a cooperating site supervisor. Students are advised to consult with the Emergency Medical Technology faculty to review specific certificate and degree work experience requirements.
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
PMED 105  Prehospital Pharmacology  .5 Units
Advisory: MATH 32 or 42 with a grade of "C" or better AND ENGRD 116 or ESLR 320 with a grade of "C" or better.
Hours: 9 hours LEC
This course provides basic instruction in prehospital pharmacology and calculating medication dosages.

PMED 106  Emergency Medical Technician Pre-hospital Practices and Internship  6.5 Units
Prerequisite: Current California State Emergency Medical Technician certification.
Corequisite: NURSE 320 or PMED 105
Advisory: AH 110, BIOL 102, ENGRD 116, ENGW 101, and MATH 32
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 CPR certification at one of the following levels: Healthcare Provider, Professional Rescuer, or equivalent.
Hours: 36 hours LEC; 243 hours LAB
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  3 Units
Hours: 45 hours LEC; 27 hours LAB
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  12 Units
Prerequisite: BIOL 102 and PMED 105 with grades of "C" or better
Advisory: AH 110, ENGRD 116, ENGW 101, HCD 114, and MATH 32
Enrollment Limitation: Acceptance into the Paramedic Program
Hours: 144 hours LEC; 216 hours LAB
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 120  Clinical Internship  7 Units
Prerequisite: PMED 110 with a grade of "B" or better.
Hours: 54 hours LEC; 216 hours LAB
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 130  Prehospital Field Internship  14 Units
Prerequisite: PMED 120 with a grade of "B" or better.
Enrollment Limitation: Current EMT certification. Current student enrolled in the Paramedic program.
Hours: 54 hours LEC; 600 hours LAB
This course provides prehospital 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 140  Pediatric Advanced Life Support Certification  .5 Units
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.
Hours: 6 hours LEC; 12 hours LAB
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  .5 Units
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.
Hours: 6 hours LEC; 12 hours LAB
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 160  Introductory Wilderness Medicine  2 Units
Hours: 27 hours LEC; 27 hours LAB
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  2 Units
Advisory: PMED 160
Hours: 27 hours LEC; 27 hours LAB
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  2 Units
Hours: 27 hours LEC; 27 hours LAB
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 240  Pediatric Advanced Life Support-Recertification  .5 Units
Enrollment Limitation: Current American Heart Association Pediatric Advanced Life Support Provider Card or county approved equivalent certificate
Hours: 8 hours LEC; 3 hours LAB
This course provides specific pediatric modules for health care professionals. It provides recertification according to the American Heart Association's Pediatric Advanced Life Support standards and guidelines.

PMED 242  Advanced Cardiac Life Support-Recertification  .5 Units
Enrollment Limitation: Current American Heart Association Advanced Cardiac Life Support Provider Card or county approved equivalent certificate
Hours: 8 hours LEC; 3 hours LAB
This course provides education modules specific for adult cardiac emergencies for health care professionals. It provides recertification according to the American Heart Association's Advanced Cardiac Life Support standards and guidelines.

PMED 295  Independent Studies in Paramedic 1-3 Units
Prerequisite: None
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the paramedic field with a cooperating site supervisor. Students are advised to consult with the Paramedic faculty to review specific certificate and degree work experience requirements.
General Education: AAAS Area III(b) (effective Summer 2018)
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.

PMED 1000  Emergency Medical Technician: Refresher 1.5 Units
Enrollment Limitation: Current or recent certification as an Emergency Medical Technician.
Hours: 23 hours LEC; 25 hours LAB
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.
Philosophy is the critical, rational examination of fundamental questions that people have pondered for more than 2500 years. These include, but are not limited to, questions such as: What is reality? What is the nature of the self? Does God exist? What is good and just? What ought I to do? Philosophy courses are directed towards an understanding of these and other fundamental questions, often through reading and studying philosophers who have addressed these questions in the past, with appreciation of the historical and cultural contexts in which these questions are raised and answered. Philosophy courses help students to develop good logical and critical reasoning skills, expose hidden preconceptions, encourage open debate and independent thought, and provide opportunity to apply valuable insights gained to contemporary life.

**Philosophy A.A. for Transfer Degree**

**Major Code, CSU GE: 011676A01**

**Major Code, IGETC: 011676A02**

This program provides lower-division preparation for students interested in transferring into baccalaureate philosophy programs.

The Associate in Arts degree in Philosophy for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Arts degree in Philosophy for Transfer (AA-T) may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Inter-segmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

**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 Opportunities**

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).

**Requirements for Degree**

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<tr>
<th>Degree</th>
<th>A.A. for Transfer - Philosophy</th>
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<tbody>
<tr>
<td></td>
<td><strong>18 Units</strong></td>
</tr>
<tr>
<td>PHIL 300</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHIL 310</td>
<td>Introduction to Ethics</td>
</tr>
<tr>
<td>PHIL 320</td>
<td>Logic and Critical Reasoning</td>
</tr>
<tr>
<td>PHIL 324</td>
<td>Symbolic Logic (3)</td>
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<tr>
<td>or MATH 320</td>
<td>Symbolic Logic (3)</td>
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A minimum of 6 units from the following:

|        | **6 Units**                |
| 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) |

**Philosophy Electives:**

- 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)

**Humanities Electives:**

- ENGL 310 English Literature I (3)
- ENGL 311 English Literature II (3)
- ENGL 320 American Literature I (3)
- ENGL 321 American Literature II (3)
- ENGL 340 World Literature I (3)
- ENGL 341 World Literature II (3)
- HIST 300 History of Western Civilization (3)
- HIST 302 History of Western Civilization (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 340 History of California through 1879 (3)
- HIST 341 History of California: 1879 to Present (3)
- HIST 364 Asian Civilization (3)
- HIST 365 Asian Civilization (3)
- HIST 367 History of Russia (3)
- HIST 373 History of Mexico (3)
- HIST 480 History of Western Civilization - Honors (3)
- HIST 481 History of Western Civilization - Honors (3)
- HUM 301 Introduction to the Humanities (3)
- HUM 302 Global Humanities: Atheism in Creativity, Thought, and Inspiration Traditions (3)
- HUM 310 Modern Humanities (3)
- HUM 320 Asian Humanities (3)
- HUM 326 Middle Eastern Humanities (3)
- HUM 330 Humanities of the Americas (3)
- HUM 355 Introduction to World Religions (3)
- HUM 360 Introduction to the Old Testament (The Hebrew Bible) (3)
- HUM 365 Introduction to the New Testament (3)

**Associate in Arts for Transfer Degree Requirements:** 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) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.
Philosophy

PHIL 300 Introduction to Philosophy 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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. (C-ID PHIL 100)

PHIL 310 Introduction to Ethics 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 and ESLW 340.
General Education: AAAS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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. (C-ID PHIL 120)

PHIL 315 Contemporary Moral Issues 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area II(b); CSU Area A3
Course Transferable to UC/CSU
Hours: 54 hours LEC

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. (C-ID PHIL 110)

PHIL 324 Symbolic Logic 3 Units
Same As: MATH 320
Prerequisite: MATH 120, 125, 129, or 133 with a grade of “C” or better, or placement through the assessment process.
General Education: AAAS Area II(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC

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. (C-ID PHIL 210; Competency: Mathematics)

PHIL 330 History of Classical Philosophy 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is an overview 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. (C-ID PHIL 130)

PHIL 331 History of Modern Philosophy 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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. (C-ID PHIL 140)

PHIL 335 Philosophy of Religion 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area I; CSU Area C2; CSU Area D7; IGETC Area 4G
Course Transferable to UC/CSU
Hours: 54 hours LEC

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.
Area: Kinesiology and Athletics
Dean: Dr. Derrick Booth
Phone: (916) 484-8201
Counseling: (916) 484-8572

Physical Education –
see Kinesiology & Athletics, page 359
Physical Science/Mathematics Degree
Major Code: 011228A01
This degree provides a broad study in the fields of physical science and mathematics. It is a good foundation for transfer to a four-year program in science, technology, engineering, or mathematics (STEM).

Student Learning Outcomes
Upon completion of this program, the student will be able to:
- recognize and utilize correctly 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.

Career Opportunities
This program is intended to provide broad foundation of skills and knowledge to help students succeed in the completion of a bachelor's degree in a variety of science, math or engineering-related areas.

Requirements for Degree
18 Units
A minimum of 18 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 300, 310, 320, 330, 400, 481, 495, 499</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 305, 306, 309, 400, 401, 420, 421, 423, 495, 499</td>
<td>5</td>
</tr>
<tr>
<td>ENGR 300, 310, 312, 401, 413, 420, 495, 499</td>
<td>5</td>
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<tr>
<td>GEOG 300, 301, 305, 306, 307, 308, 309, 391, 392, 393, 394, 495, 499</td>
<td>5</td>
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<tr>
<td>GEOL 300, 301, 305, 306, 311, 320, 325, 330, 331, 345, 390, 495, 499</td>
<td>5</td>
</tr>
<tr>
<td>MATH 300, 310, 311, 320, 325, 330, 336, 340, 342, 355, 356, 370, 372, 373, 400, 401, 402, 410, 420, 480, 495, 499</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 310, 311, 312, 350, 360, 410, 421, 431, 495, 499</td>
<td>5</td>
</tr>
<tr>
<td>PS 300, 301, 495, 499</td>
<td>5</td>
</tr>
<tr>
<td>STAT 300, 305, 495, 499</td>
<td>5</td>
</tr>
</tbody>
</table>

This transfer degree can only be awarded using the IGETC pattern:

Physics A.S. for Transfer Degree
Major Code, IGETC: 011972A02
The Associate in Science in Physics for 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.

The Associate in Science in Physics for Transfer degree (A.S.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and (b) the Intersegmental General Education Transfer Curriculum (IGETC).

Students interested in transferring to a CSU campus to pursue a bachelor's degree in physics should meet with a counselor to confirm the courses required for lower division preparation in the major. Although additional preparatory courses are not required for this degree, students will be better prepared if they complete differential equations, linear algebra, general chemistry, and at least one computer programming course prior to transferring.

Requirements for Degree
28 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>MATH 400  Calculus I.........................................................</td>
<td>5</td>
</tr>
<tr>
<td>MATH 401  Calculus II.........................................................</td>
<td>5</td>
</tr>
<tr>
<td>MATH 402  Calculus III.........................................................</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 410  Mechanics of Solids and Fluids..............................</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 421  Electricity and Magnetism.....................................</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 431  Heat, Waves, Light and Modern Physics....................</td>
<td>4</td>
</tr>
</tbody>
</table>

Associate in Science for Transfer Degree Requirements: The Associate in Science in Physics for Transfer (AS-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) the Intersegmental General Education Transfer Curriculum (IGETC) Requirements.
General Science Degree
Major Code: 011229A01
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.

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.

Requirements for Degree 18 Units
A minimum of 18 units from the following: 18

Physical Science Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 300</td>
<td>Astronomy</td>
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</tr>
<tr>
<td>CHEM 301</td>
<td>General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 300</td>
<td>Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 300</td>
<td>Geology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 300</td>
<td>Physics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 310</td>
<td>Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Biological Science Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 300</td>
<td>Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 300</td>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOT 300</td>
<td>Botany</td>
<td>3</td>
</tr>
<tr>
<td>NATR 300</td>
<td>Natural History</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 310</td>
<td>Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

1Must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

Associate Degree Requirements: The General Science Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
PHYS 410  Mechanics of Solids and Fluids  5 Units
Prerequisite: MATH 400 with a grade of “C” or better
Corequisite: MATH 401
Advisory: PHYS 411; and eligible for ENGRD 310 or ENGRD 312
AND ENGW 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3;
IGETC Area 5A; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
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. (C-ID
PHYS 205; Part of C-ID PHYS 200S)

PHYS 421  Electricity and Magnetism  4 Units
Prerequisite: MATH 401 and PHYS 410 with grades of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300;
OR ESLR 340 AND ESLW 340.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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. (C-ID
PHYS 210; Part of C-ID PHYS 200S)

PHYS 431  Heat, Waves, Light
and Modern Physics  4 Units
Prerequisite: MATH 401 and PHYS 410 with grades of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300;
OR ESLR 340 AND ESLW 340.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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. (C-ID PHYS 215; Part of C-ID PHYS
200S)

PHYS 495  Independent Studies in Physics  1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.

PS 300  Introduction to Physical Science  3 Units
Advisory: MATH 100, 104 or 132 with a grade of “C” or better, AND
eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR
ESLR 340 AND ESLW 340.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the fundamental concepts of astronomy, geology,
physics, chemistry, and meteorology. It is designed for the student
with little or no science background. It is not recommended for
science, mathematics, or engineering majors.

PS 301  Physical Science Laboratory  1 Unit
Corequisite: PS 300
Advisory: MATH 100, 104, or 132
General Education: CSU Area B3; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LAB
This laboratory course provides hands-on experiments in several
disciplines in the physical sciences, including physics, chemistry,
earth science, and astronomy.

PS 495  Independent Studies
in Physical Science  1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
Political Science Degree

Major Code: 011312A01

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.

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.
• 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 Opportunities

This degree is designed to facilitate successful transfer to four-year programs. 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.

Requirements for Degree  18 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 301 Introduction to Government: United States (3)</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 481 Introduction to Government: United States - Honors (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 302 Introduction to Government: Foreign</td>
<td>3</td>
</tr>
<tr>
<td>POLS 310 Introduction to International Relations (3)</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 480 Introduction to International Relations - Honors (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 320 Introduction to Political Theory</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 6 units from the following:</td>
<td>6</td>
</tr>
<tr>
<td>HIST 310 History of the United States (3)</td>
<td></td>
</tr>
<tr>
<td>or HIST 483 History of the United States - Honors (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 311 History of the United States (3)</td>
<td></td>
</tr>
<tr>
<td>or HIST 484 History of the United States - Honors (3)</td>
<td></td>
</tr>
<tr>
<td>IS 301 Introduction to Global Studies (3)</td>
<td></td>
</tr>
<tr>
<td>IS 302 Issues in Global Studies (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 304 Introduction to Government: California (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 330 Constitutional Rights (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 342 Women and Politics from a Global Perspective (3)</td>
<td></td>
</tr>
</tbody>
</table>

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

Political Science A.A. for Transfer Degree

Major Code, CSU GE: 011313A01
Major Code, IGETC: 011313A02

The Associate in Arts degree in Political Science for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of Political Science. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.

The Associate in Arts degree in Political Science for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Arts degree in Political Science for Transfer (A.A.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth 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.
• 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.

(continued on next page)
Career Opportunities

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.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 301</td>
<td>Introduction to Government: United States</td>
<td>3</td>
</tr>
<tr>
<td>POLS 481</td>
<td>Introduction to Government: United States - Honors</td>
<td>3</td>
</tr>
<tr>
<td>POLS 302</td>
<td>Introduction to Government: Foreign</td>
<td>3</td>
</tr>
<tr>
<td>POLS 310</td>
<td>Introduction to International Relations</td>
<td>3</td>
</tr>
<tr>
<td>POLS 320</td>
<td>Introduction to Political Theory</td>
<td>3</td>
</tr>
<tr>
<td>STAT 300</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
</tr>
</tbody>
</table>

A minimum of 9 units from the following: 9 units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 310</td>
<td>Peace and Conflict</td>
<td>3</td>
</tr>
<tr>
<td>IS 312</td>
<td>Current Global Development Issues</td>
<td>3</td>
</tr>
<tr>
<td>POLS 304</td>
<td>Introduction to Government: California</td>
<td>3</td>
</tr>
<tr>
<td>POLS 330</td>
<td>Constitutional Rights</td>
<td>3</td>
</tr>
<tr>
<td>POLS 342</td>
<td>Women and Politics from a Global Perspective</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 6 units from the following: 6 units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 310</td>
<td>Peace and Conflict</td>
<td>3</td>
</tr>
<tr>
<td>IS 312</td>
<td>Current Global Development Issues</td>
<td>3</td>
</tr>
<tr>
<td>STAT 300</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
</tr>
</tbody>
</table>

Associate in Arts for Transfer Degree

Major Code: 011237A01

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.

International Studies Degree

Major Code: 011237A01

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.

Career Opportunities

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.

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 lives 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.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH 481</td>
<td>Honors Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HIST 308</td>
<td>History of World Civilizations, 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>POLS 310</td>
<td>Introduction to International Relations</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 480</td>
<td>Introduction to International Relations - Honors</td>
<td>3</td>
</tr>
<tr>
<td>SOC 300</td>
<td>Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 480</td>
<td>Introductory Sociology - Honors</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 6 units from the following: 6 units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 310</td>
<td>Peace and Conflict</td>
<td>3</td>
</tr>
<tr>
<td>IS 312</td>
<td>Current Global Development Issues</td>
<td>3</td>
</tr>
<tr>
<td>STAT 300</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
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</tbody>
</table>

A minimum of 8 units from the following: 8 units

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>FREN 401</td>
<td>Elementary French</td>
<td>4</td>
</tr>
<tr>
<td>FREN 402</td>
<td>Elementary French</td>
<td>4</td>
</tr>
<tr>
<td>FREN 411</td>
<td>Intermediate French</td>
<td>4</td>
</tr>
<tr>
<td>FREN 412</td>
<td>Intermediate French</td>
<td>4</td>
</tr>
<tr>
<td>GERM 401</td>
<td>Elementary German I</td>
<td>4</td>
</tr>
<tr>
<td>GERM 402</td>
<td>Elementary German II</td>
<td>4</td>
</tr>
<tr>
<td>GERM 411</td>
<td>Intermediate German I</td>
<td>4</td>
</tr>
<tr>
<td>GERM 412</td>
<td>Intermediate German I</td>
<td>4</td>
</tr>
<tr>
<td>ITAL 401</td>
<td>Elementary Italian I</td>
<td>4</td>
</tr>
<tr>
<td>ITAL 402</td>
<td>Elementary Italian I</td>
<td>4</td>
</tr>
<tr>
<td>ITAL 411</td>
<td>Intermediate Italian I</td>
<td>4</td>
</tr>
<tr>
<td>ITAL 412</td>
<td>Intermediate Italian I</td>
<td>4</td>
</tr>
<tr>
<td>RUSS 401</td>
<td>Elementary Russian I</td>
<td>4</td>
</tr>
<tr>
<td>RUSS 402</td>
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<td>SPAN 401</td>
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</tr>
<tr>
<td>SPAN 411</td>
<td>Intermediate Spanish I</td>
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</tr>
<tr>
<td>SPAN 412</td>
<td>Intermediate Spanish I</td>
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</tbody>
</table>

Associate Degree Requirements: 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) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

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POLS 302  Introduction to Government:  Foreign  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLL 340. 
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H 
Course Transferable to UC/CSU 
Hours: 54 hours LEC 
This course is a comparative study and analysis of political systems, ideologies, institutions, policies, cultures, histories, and the development of selected foreign governments. Special emphasis is placed on the cultural and social dimensions of political behavior and attitudes in connection with governmental and political practices typical of particular geographical regions. Coverage includes an examination of selected developed and lesser developed nation-states from a global perspective. (C-ID POLS 130)

POLS 304  Introduction to Government:  California  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLL 340. 
General Education: AA/AS Area V(a); CSU Area D8; CSU Area F3; IGETC Area 4H 
Course Transferable to UC/CSU 
Hours: 54 hours LEC 
This course covers the essential organization, institutions, and processes of California state and local government. It fulfills the California State University requirement for state and local government, but not the requirement for the U.S. Constitution.

POLS 310  Introduction to International Relations  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300, OR ESLR 340 AND ESLL 340. 
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H 
Course Transferable to UC/CSU 
Hours: 54 hours LEC 
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 nonstate 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. (C-ID POLS 140)

POLS 320  Introduction to Political Theory  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300, OR ESLR 340 AND ESLL 340. 
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H 
Course Transferable to UC/CSU 
Hours: 54 hours LEC 
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. (C-ID POLS 120)

POLS 330  Constitutional Rights  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLL 340. 
General Education: AA/AS Area V(b); CSU Area D8 
Course Transferable to UC/CSU 
Hours: 54 hours LEC 
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  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ESLL 340. 
General Education: AA/AS Area V(b); CSU Area D4; CSU Area D8; IGETC Area 4D; IGETC Area 4H 
Course Transferable to UC/CSU 
Hours: 54 hours LEC 
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. (C-ID POLS 140)

POLS 481  Introduction to Government: United States - Honors  
Prerequisite: Placement into ENGW 480 through the assessment process. 
Advisory: ENGRD 310 OR 480 
General Education: AA/AS Area V(a); CSU Area D8; CSU Area F3; IGETC Area 4H 
Course Transferable to UC/CSU 
Hours: 54 hours LEC 
This course analyzes the U.S. government’s historic origins, philosophical and theoretical justification, constitutional structures and how these institutions work. It examines and describes the procedural aspects of the political system including holding elections, campaigning, voting, lobbying, legislating, executing and adjudicating law. It provides an analysis of contemporary problems and issues. It also describes California state and local governments’ constitutional base, structures and functions, political process, problems and issues. Conducted in a seminar format, this course emphasizes participatory classroom styles of learning and the material used is more substantial and sophisticated. In addition, there are extensive research projects on American institutions, political processes, and political behavior designed to challenge and motivate. This course is not open to students who have completed POLS 301.

POLS 495  Independent Studies in Political Science  
Prerequisite: None 
Course Transferable to CSU 
Hours: 54-162 hours LAB 
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.
Psychology Degree

Major Code: 011548A01

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.

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 lifelong 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 Opportunities

The Psychology degree is designed to facilitate students’ 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.

Requirements for Degree  

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<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tr>
<td>PSYC 300</td>
<td>General Principles</td>
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<td>or PSYC 480</td>
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<tr>
<td>PSYC 310</td>
<td>Biological Psychology</td>
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<tr>
<td>PSYC 330</td>
<td>Introductory Statistics for the Behavioral Sciences</td>
<td>3</td>
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<tr>
<td>PSYC 335</td>
<td>Research Methods in Psychology</td>
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And a minimum of 3 units from the following: ................................................. 3

• PSYC 320, PSYC 370, and PSYC 373 may be used for this requirement if not used previously.

Psychology A.A. for Transfer Degree

Major Code, CSU GE: 011549A01
Major Code, IGETC: 011549A02

The Associate in Arts degree in Psychology for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of psychology. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.

The degree was designed to facilitate students’ successful transfer to four-year programs that prepare them for advanced study in a variety of graduate programs, as well as a variety of careers such as nursing, sales and marketing, teaching, and law enforcement. 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.
The Associate in Arts degree in Psychology for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

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

### 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 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 psychological principles that lay the foundation for lifelong 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 Opportunities

The Psychology degree is designed to facilitate students' successful transfer to four-year programs that prepare them for advanced study in a variety of graduate programs, as well as a variety of careers such as nursing, sales and marketing, teaching, and law enforcement. 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.

### Requirements for Degree

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<tr>
<td>A minimum of 3 units from the following:</td>
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<tr>
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<tr>
<td>PSYC 370</td>
<td>Human Development: A Life Span</td>
<td>3</td>
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<tr>
<td>PSYC 373</td>
<td>Child Psychology</td>
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### A minimum of 3 units from the following: (3)

- PSYC 305 Psychology Applied to Modern Life
- PSYC 320 Social Psychology
- PSYC 340 Abnormal Behavior
- PSYC 481 Honors Abnormal Behavior
- PSYC 342 Introduction to Applied Behavior Analysis
- PSYC 354 The Psychology of Family Life and Intimate Relationships in a Diverse Society
- PSYC 356 Human Sexuality
- PSYC 370 Human Development: A Life Span
- PSYC 373 Child Psychology
- PSYC 390 Psychology of Death and Dying

*Or any course not used previously

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

### Psychology Courses

#### PSYC 300 General Principles

**3 Units**

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ERLW 340.

General Education: AA/AS Area V(b); CSU Area D9; IGETC Area 41

Course Transferable to UC/CSU

*Hours: 54 hours LEC*

This course provides a broad overview of general principles of psychology. Topics include the scientific method, statistics, biological determinants, as well as general processes of behavior, such as development, learning, language, intelligence, perception, motivation, emotion, personality, and mental health. This course is not open to students who have taken PSYC 480. (C-ID PSY 110)

#### PSYC 305 Psychology Applied to Modern Life

**3 Units**

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 AND ERLW 340.

General Education: AA/AS Area V(b); CSU Area D9; IGETC Area 41

Course Transferable to UC/CSU

*Hours: 54 hours LEC*

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. (C-ID PSY 115)

#### PSYC 310 Biological Psychology

**3 Units**

Prerequisite: PSYC 300 or 480 with a grade of “C” or better

General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B

Course Transferable to UC/CSU

*Hours: 54 hours LEC*

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 system pathologies are presented. Ethical standards for human and animal research are discussed. (C-ID PSY 150)
PSYC 311 Biological Psychology Laboratory 1 Unit
Corequisite: PSYC 310
General Education: CSU Area B3; IGETC Area 5C
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 3 Units
Prerequisite: PSYC 300 with a grade of “C” or better
General Education: AAAS Area V(b); CSU Area D9; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course analyzes human behavior in relation to the social environment, including the power of the situation, other individuals, and the social group. Topics include aggression, prejudice, attraction, altruism, attitude change, conformity, gender roles, cultural norms, person perception, and social cognition. (C-ID PSY 170)

PSYC 330 Introductory Statistics for the Behavioral Sciences 3 Units
Prerequisite: MATH 120, MATH 125, MATH 129, or MATH 133 with a grade of “C” or better.
General Education: AAAS Area II(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course focuses upon the concepts and applications of descriptive and inferential statistics in psychology and other behavioral sciences. Topics include descriptive statistics, probability and sampling distributions, parametric and nonparametric statistical methods, hypothesis testing, statistical inference and power, correlation and regression, chi-square, t-tests, and analysis of variance procedures. Application of both hand computation and statistical software to data in a social science context is emphasized to include the interpretation of the relevance of the statistical findings. (C-ID MATH 110; Competency: Mathematics)

PSYC 335 Research Methods in Psychology 3 Units
Prerequisite: PSYC 300 AND PSYC 330 or STAT 300 with a grade of ‘C’ or better.
Advisory: ENGRD 310 or ESNW 340 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID PSY 200)

PSYC 340 Abnormal Behavior 3 Units
Prerequisite: PSYC 300, 305, or 480 with a grade of “C” or better
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESNW 340.
General Education: AAAS Area III(b); CSU Area D9; CSU Area E1; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 class is not open to students who have taken PSYC 481. (C-ID PSY 120)

PSYC 342 Introduction to Applied Behavior Analysis 3 Units
Prerequisite: PSYC 300 or 305 with a grade of “C” or better
General Education: AAAS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on basic behavioral principles that describe relations between operant behavior and the social and physical environment. Behavior is examined as a part of the natural world and in everyday situations. The primary focus is 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. It also covers practical applications including self management, institutional settings, schools, and child behavior management, as well as treatment of developmental disorders such as Autism and Asperger's disorders.

PSYC 354 The Psychology of Family Life and Intimate Relationships in a Diverse Society 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESNW 340.
General Education: AAAS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
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 the family, sexuality, parenting, gender roles, partner selection, conflict, crisis, divorce, and starting over. (C-ID SOCI 130)

PSYC 356 Human Sexuality 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESNW 340.
General Education: AAAS Area III(b); AAAS Area VI; CSU Area D4; CSU Area D9; CSU Area E1; IGETC Area 4D; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID PSY 130)
PSYC 358 Principles of Interpersonal Relations 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the principles involved in effective interpersonal relationships. Topics include interpersonal feedback, self-disclosure, listening, the role of emotions, conflict resolution, personal values, and self-awareness. Emphasis is on methods to enhance relationships at home, work, and school.

PSYC 359 Stress Management and Health 3 Units
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3; CSU Area D4; CSU Area D9; IGETC Area 4C; IGETC Area 4D; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Same As: HSER 330
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
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 HSER 330.

PSYC 370 Human Development: A Life Span 3 Units
Advisory: ENGRWR 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.
General Education: AA/AS Area V(b); AA/AS Area III(b); CSU Area D9; CSU Area E1; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course 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. Emphasis is placed on 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. (C-ID PSY 180)

PSYC 372 Child Development 3 Units
Same As: ECE 312
Advisory: ENGRWR 102 and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better.
General Education: AA/AS Area V(b); CSU Area D9; CSU Area E1; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a study of the growth and development of children from the prenatal stage through adolescence. For each stage of development, the physical, cognitive, linguistic, social-moral, and emotional aspects of development, with attention to both typical as well as atypical development in each area, are discussed. Included are the influences of culture, family, and the interaction of maturational and environmental factors. This material is designed as a foundation for early care and education, teaching, and parenting. This course is not open to students who have completed ECE 312. (C-ID CDEV 100)

PSYC 373 Child Psychology 3 Units
Same As: HSER 330
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); CSU Area D9; CSU Area E1;
IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the physical, psychological, and social aspects of the aging process including the interactions between the elderly and the rest of society. Topics include an analysis of stereotypes, social bonds, environmental factors, sexuality, physical health, mental health, death, and bereavement. This course is not open to students who have completed GERON 302.

PSYC 374 Psychology of Aging: Adult Development and Aging 3 Units
Same As: GERON 302
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area V(b); CSU Area D; CSU Area E1; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the physical, psychological, and social aspects of the aging process including the interactions between the elderly and the rest of society. Topics include an analysis of stereotypes, social bonds, environmental factors, sexuality, physical health, mental health, death, and bereavement. This course is not open to students who have completed GERON 302.
PSYC 378 Communicating with and Validating Older Adults 3 Units
Same As: GERON 330
Prerequisite: GERON 302 or PSYC 374 with a grade of "C" or better
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;
Enrollment Limitation: Current tuberculosis clearance
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the basic theory, techniques, and experiences for communication with, validation of, and stimulation of the elderly at different cognitive levels in long-term care. After the first class session, this course is held off campus in a long-term care setting. This course is not open to students who have completed GERON 330.

PSYC 379 Reminiscence Therapy 3 Units
Same As: GERON 334
Prerequisite: GERON 302 or PSYC 374 with a grade of "C" or better
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.
Enrollment Limitation: Current tuberculosis clearance
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the basic theory and techniques of reminiscence therapy and provides experience in planning, facilitating, and evaluating reminiscence groups with the elderly in an institutional setting. After the first class session, this course is held off campus in a long-term care setting. This class is not open to students who have completed GERON 334.

PSYC 390 Psychology of Death and Dying 3 Units
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.
General Education: AA/AS Area III(b); CSU Area D9; CSU Area E1; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course 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 3 Units
Same As: HSER 340
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300;
OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course examines the biopsychosociocultural effects of chemical dependency on the individual and the family. It includes an analysis of drug use; misuse and abuse across age, gender, 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 HSER 340.

PSYC 401 Physiology and Pharmacology: Alcohol & Other Drugs 3 Units
Same As: HSER 341
Prerequisite: ENGWR 102 or ESLW 320 and HSER 340 or PSYC 400 with a grade of "C" or better.
Course Transferable to CSU
Hours: 54 hours LEC
This course is a study of the chemical composition of alcohol and the mechanism of action of alcohol and other psychoactive drugs, including opiates, stimulants, depressants, psychotherapeutics, and psychedelics. It also includes 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 HSER 341.

PSYC 402 Alcoholism: Intervention, Treatment & Recovery 3 Units
Same As: HSER 342
Prerequisite: HSER 341 or PSYC 401 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
This course is a study and evaluation of techniques used in the treatment of chemical dependency. Topics include intervention, individual and group counseling, detoxification, twelve-step program, therapeutic communities, and aftercare programs. This course is not open to students who have completed HSER 342.

PSYC 415 Studying in London: Psychological Elements of British Life and Culture 3 Units
General Education: AA/AS Area V(b); CSU Area D9
Course Transferable to CSU
Hours: 54 hours LEC
This course, offered in a London study abroad program, surveys elements in British history and culture that have influenced the science of psychology. Special emphasis is given to 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 psychology behind various elements of British life including the monarchy, popular society, counter culture, art, and history. Field trips are required.

PSYC 480 Honors General Principles 3 Units
Prerequisite: Placement into ENGWR 480 through the assessment process.
General Education: AA/AS Area V(b); CSU Area D9; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is 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. Emphasizing critical thinking in a seminar style, the focus is on thorough analysis and evaluation of psychological theories and research studies as they relate to practical, everyday issues. This course is not open to students who have completed PSYC 300. (C-ID PSY 110)
**PSYC 481 Honors Abnormal Behavior**  3 Units  
Prerequisite: PSYC 300, 305, or 480 with a grade of "C" or better; Placement into ENGWR 480 through the assessment process.  
General Education: AA/AS Area III(b); CSU Area D9; CSU Area E1; IGETC Area 4I  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is 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, 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. Field trips may be required. This course is not open to students who have taken PSYC 340. (C-ID PSY 120)

**PSYC 495 Independent Studies in Psychology**  1-3 Units  
Course Transferable to CSU  
Hours: 54-162 hours LAB  
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.
The Sacramento Regional Public Safety Training Center (SRPSTC), operated by American River College, is dedicated to providing 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), California Standards and Training for Corrections (STC), and the California State Fire Marshal’s Office. Most courses presented at the SRPSTC are offered in an extensive, 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.

**Technical/Professional Development (In-Service) courses**

Technical training and in-service courses are geared primarily for law enforcement officers, correctional officers, probation officers or other individuals within the criminal justice system. Individuals taking these courses generally are seeking technical knowledge and skills for professional enhancement or they are mandated by POST, STC, or the California State Fire Marshal’s Office. Technical courses involving instructor certification may require a proficiency skills test prior to registration. California Statute or prerequisites may restrict student registration into some courses.

**Program Costs and Registration**

Additional information and course reservations are available by calling the center at (916) 570-5000 or online at arc.losrios.edu. Students are required to pay for the cost of the materials consumed during the training course and established community college enrollment fees.

**Contract Partnerships**

The Sacramento Regional Public Safety Training Center, Los Rios Community College District and select local and regional agencies have partnered to establish additional training options for the Public Safety Professional/Student. Courses offered through our Contract partnership meet all of the regulatory standards set by the Los Rios Community College District, American River College, POST, and/or STC. California Statute or prerequisites may restrict student registration into some courses.

**County of Sacramento**

For information on the Basic Academy, contact the Sacramento Sheriff’s Training Academy, 1000 River Walk Way, Carmichael, CA 95608, call (916) 874-2677, or visit the webpage: www.sacsheriff.com/Pages/Organization/ProfessionalStandards/TrainingAndEducationDivision/AcademyTraining.aspx

**City of Sacramento**

For information and courses presented by City of Sacramento Police Department, call (916) 808-0880 or visit their training page at: www.cityofsacramento.org/Police/Join-SPD/Academies

**USDA Forest Service**

For information on courses presented by USDA Forest Service, call (916) 454-0803

**Regional Fire and Rescue Training Authority (JPA)**

For information on courses presented by Regional Fire and Rescue Training Authority call (916) 475-1660 or visit their website at: www.fireandrescuetraining.ca.gov/

**Sacramento Metropolitan Fire District**

For information on courses presented by the Sacramento Metropolitan Fire District, call (916) 859-4391 or visit the district’s training webpage at: http://metrofire.ca.gov/

**Sacramento City Fire Department**

For information on courses presented by the Sacramento Fire Department call (916) 566-6599 or visit the Division of Training webpage at: http://portal.cityofsacramento.org/Fire

**Sacramento Regional Chaplain’s Program**

For information on courses presented by the Sacramento Regional Chaplain’s Program, call (916) 857-1801 or visit their website at: www.sacchaplains.com

Additional information regarding training programs offered by the Sacramento Regional Public Safety Training Center and any one of it’s Contract partners, is available by contacting any staff member at (916) 570-5000 or any staff member of the agency’s training division.
CERTIFICATES

POST Basic Law Enforcement Academy - Modular Format Certificate

Major Code: 010910C01

This certificate meets or exceeds the California Peace Officer Standards and Training (POST) minimum standards for the Level I reserve or full-time regular peace officer training. Upon completion of the program the student will be eligible to seek employment as a Level I reserve or full-time peace officer in California.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• demonstrate the ability to safely drive and control a law enforcement vehicle while operating under emergency and pursuit conditions.
• distinguish and apply reasonable force options in a given circumstance.
• demonstrate the ability to deliver strikes with an impact weapon or facsimile, as directed.
• demonstrate proficiency in victimology and crisis intervention.
• demonstrate proficiency in contacting people with simulated disabilities.
• demonstrate proficiency in responding to and investigating a simulated suspicious person/circumstance.
• perform the tasks of an officer conducting a preliminary homicide investigation.
• demonstrate proficiency in responding to and investigating a simulated domestic violence incident.
• demonstrate proficiency in conducting a preliminary investigation of a simulated felonious assault.
• demonstrate proficiency in responding to and investigating a simulated pedestrian stop.
• demonstrate proficiency in conducting a simulated vehicle pullover during low light/night time conditions.
• demonstrate proficiency in conducting a simulated high risk vehicle stop.
• demonstrate proficiency in responding to and investigating a simulated incident involving one or more suspects concealed in a building.
• demonstrate proficiency in reacting to a simulated ambush.

Career Opportunities

With the POST Basic Law Enforcement Academy - Modular Format certificate the student will be eligible for employment as a Level I reserve peace officer or a full-time regular peace officer in California.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

• be a minimum of 18 years of age.
• be a U.S. 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.
• possess a valid California Driver’s License.
• undergo a fingerprint and criminal history check.
• complete a medical suitability examination.

Requirements for Certificate 27.5 - 35 Units

PSTC 1502 Basic Law Enforcement Academy - Module III .............. 6-7
PSTC 1503 Basic Law Enforcement Academy - Module II .................. 8-11
PSTC 1504 Basic Law Enforcement Academy - Module I ............. 13.5-17

PUBLIC SAFETY TRAINING CENTER

Public Safety Training Center

PSTC 1200 Basic Law Enforcement Academy 24-32 Units

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 6) Complete a medical suitability examination.

Hours: 304-389 hours LEC; 410-584 hours LAB

The Basic Law Enforcement Academy meets or exceeds the minimum training requirements of the California Commission on Peace Officer Standards and Training (POST) for Level I Reserve Officer training and for Full-time Regular Peace Officer employment. Topics include: leadership, professionalism & ethics, policing in the community, introduction to criminal law, laws of arrest, search and seizure, presentation of evidence, juvenile law & procedure, investigative report writing, vehicle operations, use of force, vehicle operations, domestic violence, unusual occurrences, traffic collision investigations, crime scenes, evidence, defensive tactics, firearms/chemical agents, hazardous materials awareness, and cultural diversity/discrimination. Pass/No Pass only.

PSTC 1251 Skills and Knowledge Modules 25-3 Units

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.

Hours: 4.5-44 hours LEC; 0-40 hours LAB

This course is designed to facilitate the acquisition of advanced skills and knowledge necessary for policing and peacekeeping in contemporary society. Course topics are based upon California Commission on Peace Officer Standards and Training (POST) updates to mandated minimum training for peace officers, legislative mandates, changes in local, state and federal laws, 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 the POST minimum. Topics include: arrest methods update, chemical agents update, community relations, courtroom testimony, emotional survival, entry techniques update, ethics, field tactics, impact weapons update, interpersonal/tactical communication update, investigative report writing update, juvenile law update, legal update, less than lethal force update, search and seizure update, search warrant writing and service and tactical firearms update. Pass/No Pass.

PSTC 1270 Juvenile Corrections Officer Core 7.5 Units

Hours: 126 hours LEC; 34 hours LAB

This course is designed for the new juvenile corrections officer or the individual interested in a career in juvenile corrections. Topics include California criminal justice system, professionalism and ethics, defensive tactics, report writing, mental health issues, gangs and physical conditioning. This course is certified by California Standards and Training for Corrections (STC). This course is formerly known as PSTC 1519. Pass/No Pass only.
PSTC 1271 Adult Correctional Officer Core Course 8.5 Units
Hours: 151 hours LEC; 28.5 hours LAB
This course is designed for entry-level positions in the adult corrections field. Topics include criminal procedure, interviewing and counseling techniques, defensive tactics, public relations, oral and written communications, classifications and housing of inmates, court testimony and indicators of psychological problems. This course meets or exceeds Standards and Training for Corrections’ minimum training requirements for entry-level adult corrections officers. This course is formerly known as SCSD 1139 and PSTC 1879. Pass/No Pass only.

PSTC 1272 CDC Advanced Investigations 2 Units
Prerequisite: PSTC 1294
Hours: 40 hours LEC
This course is designed to enhance the basic criminal investigation skills of the California Department of Corrections Investigator. Pass/No Pass only.

PSTC 1273 Probation Officer Core Course 9 Units
Hours: 156 hours LEC; 40 hours LAB
This course is designed for entry-level positions in the probation officer field. Topics include criminal justice system, legal foundations, terminology, codes, statutes, case law, indicators of psychological problems, gangs, interviews, court reports, 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 1275 Adult Corrections: Supplemental Core Course 3.5 Units
Prerequisite: PSTC 1271
Hours: 59.5 hours LEC; 10.5 hours LAB
This course expands upon the student’s existing knowledge of legal and procedural concepts introduced in PSTC 1271. Instruction is focused on correctional codes and statutes, inmate classification, contraband, and booking and inmate supervision. This course is formerly known as PSTC 1294. Pass/No Pass only.

PSTC 1300 Bureau of Investigative and Security Services (BSIS) Skills Training Course for Security Guards 2 Units
Enrollment Limitation: Applicants must 1) be at least 18 years old and 2) undergo a criminal history background check through the California Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI).
Hours: 40 hours LEC
This course provides the student with the skills training required for security guard licensing by the Department of Consumer Affairs, Bureau of Security and Investigative Services (BSIS). Topics include powers to arrest, weapons of mass destruction, public relations, observation and documentation, communication and its significance, liability/legal aspects, officer safety, handling of difficult people, trespass, and courtroom demeanor. Students will receive a certificate of completion at the end of the course and be eligible to apply for BSIS security guard registration.

PSTC 1301 Skills Training for Security Guards - BSIS Elective A .25 Units
Prerequisite: PSTC 1300
Hours: 8 hours LEC
This course improves the skills and knowledge of the BSIS Security Guard and is accepted as part of the 16 hours of elective training mandated by the Business and Professions Code section 7683.6 and 7683.6 (b). It may be taken within thirty (30) days from the day the security guard’s registration card is issued or the day the security guard starts employment, or within the first six (6) months from the day the security guard’s registration card is issued or the day the security guard starts employment. Topics include security officer safety and handling difficulty people. Pass/No Pass Only.

PSTC 1302 Skills Training for Security Guards - BSIS Elective B .25 Units
Prerequisite: PSTC 1300
Hours: 8 hours LEC
This course improves the skills and knowledge of the BSIS Security Guard and is accepted as part of the 16 hours of elective training mandated by the Business and Professions Code section 7683.6 and 7683.6 (b). It may be taken within thirty (30) days from the day the security guard’s registration card is issued or the day the security guard starts employment, or within the first six (6) months from the day the security guard’s registration card is issued or the day the security guard starts employment. Topics include trespass and arrest; search and seizure update. Pass/No Pass Only.

PSTC 1305 Introduction to Loss Prevention 2 Units
Advisory: PSTC 1300
Hours: 40 hours LEC
This course introduces the student to the foundational concepts of loss prevention in the retail industry. It covers the roles and responsibilities of loss prevention officers, the crimes that commonly occur in the retail environment, the legal authority for the loss prevention officer to effect an arrest, loss prevention techniques, case building, and courtroom testimony. Students may be required to travel to multiple locations for course instruction and demonstrations. Pass/No Pass only.

PSTC 1400 Limited Peace Officer Criminal Investigations I 4 Units
Prerequisite: PSTC 1501, 1555, and 1800
Hours: 66 hours LEC; 18 hours LAB
This course is designed to provide advanced investigative skills and knowledge to the limited peace officer, as defined in PC 830.11 PC. Topics include evidence, interviewing techniques, search and seizure, search warrants, working with victims and witnesses, managing informants, information sources, case preparation, courtroom testimony, media relations, and surveillance techniques. This course was formerly PSTC 1803. Pass/No Pass only.

PSTC 1401 Limited Peace Officer Criminal Investigations II 3 Units
Prerequisite: PSTC 1400
Hours: 48 hours LEC; 32 hours LAB
This course is designed to advance the skill set of the limited peace officer, as defined in PD 830.11 PC. Topics include personal safety, medical marijuana investigations, economic crimes, tobacco dating, crime scene management, evidence identification, collection, processing, and preservation, case management, investigative report writing, and courtroom testimony. Pass/No Pass only.
PSTC 1402 Limited Police Officer Criminal Investigations III 3 Units
Prerequisite: PSTC 1400
Hours: 48 hours LEC; 20-32 hours LAB
This course is designed to provide advanced investigative skills and knowledge to the limited peace officer, as defined in PC 830.11.11 PC. Topics include community oriented policing and problem-solving, media relations, and surveillance techniques. Pass/No Pass only.

PSTC 1403 Basic Skills for the District Attorney Non-Sworn Investigator 1.5 Units
Hours: 32 hours LEC
This course is designed to provide the student with foundational skills and knowledge for employment as a non-sworn investigator in a California District Attorney's office. Topics include the role of the district attorney and district attorney 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 Basic Sheriff Academy 25 Units
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.
Hours: 198 hours LEC; 758 hours LAB
This course is a consolidated program of regular basic law enforcement training. Topics include criminal law, juvenile law, laws of evidence, administration of justice, community relations, investigation, traffic control and procedures, patrol procedures, defensive tactics, arrest control, weaponless defense, baton techniques, first aid/cardio pulmonary resuscitation (CPR), and vehicle operations. This course is certified by the California Commission on Peace Officer Standards and Training (POST). Pass/No Pass only.

PSTC 1501 PC 832 Arrest, Search & Seizure 2 Units
Hours: 36 hours LEC; 4 hours LAB
This course satisfies the arrest, search, and seizure requirement for peace officers as defined in section 832 of the California Penal Code. Topics include professional orientation, justice system, knowing your community, laws of evidence and arrest, investigation, 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 6-7 Units
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.
Hours: 80-100 hours LEC; 86-126 hours LAB
The course satisfies Level III training requirements of the Commission on Peace Officer Standards and Training (POST) Level III module. Topics include: leadership and ethics, community policing and problem solving, introduction to criminal law, investigative report writing, use of force, traffic enforcement, crimes scenes and forensics, arrest methods and defensive tactics, and firearms. POST certification #2970-00133. Pass/No Pass only.

PSTC 1503 Basic Law Enforcement Academy- Module II 8-11 Units
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.
Hours: 108-140 hours LEC; 132-200 hours LAB
This course satisfies training requirements of the Commission on Peace Officer Standards and Training (POST) Module II. Topics include property crimes, crimes against persons, crimes against the justice system, laws of arrest, search and seizure, presentation of evidence, patrol techniques, vehicle pullovers, crimes in progress, lifetime fitness, and career preparation. POST certification #2970-00140. Pass/No Pass only.

PSTC 1504 Basic Law Enforcement Academy- Module I 13.5-17 Units
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.
Hours: 149-190 hours LEC; 286-360 hours LAB
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 25 Units
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.
Hours: 152 hours LEC; 894 hours LAB
This 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 22-26 Units
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.
Hours: 251 hours LEC; 466-682 hours LAB
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 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 .5-.75 Units
Hours: 4-8 hours LEC; 16-24 hours LAB
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 1512 POST Instructor Development - Intermediate Level 2 2 Units
Hours: 40 hours LEC
This course provides the skills necessary for obtaining level 2 instructor certification through California Commission on Peace Officer Standards and Training (POST). Topics include learning theories, instructional design, student assessment, outcome-based learning, problem-based learning, facilitation skills, active learning, presentation skills, and critical thinking. Pass/No Pass only.

PSTC 1514 Academy Graduate Training - SPD 1.5-2 Units
Prerequisite: PSTC 1200 with a grade of “C” or better
Hours: 28-34 hours LEC; 0-6 hours LAB
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 1 Unit
Hours: 8 hours LEC; 32 hours LAB
This course is designed for instructors assigned to teach at a POST-certified basic law enforcement academy. Upon completion of the course, students receive a POST AICC certificate of completion. Topics include adult learning methodologies, facilitation skills, and the POST regular basic academy instructional design. Pass/No Pass only.

PSTC 1517 Academy Graduate Training 2 Units
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.
Hours: 51 hours LEC; 22 hours LAB
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 update, 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 2 Units
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.
Hours: 16 hours LEC; 64 hours LAB
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 Supervisory (STC Format) 2 Units
Prerequisite: PSTC 1270, 1271, or 1273
Hours: 24 hours LEC; 56 hours LAB
This course focuses on aspects of supervision specific to the field of corrections. This examination of supervision in the context of parole and probation environments will include ethics, problem solving, discipline, legal update, grievance procedures, and leadership. This course is accredited by the State of California’s Standards and Training for Corrections (STC) with STC Certification #0218-011703. Pass/No Pass only.
PSTC 1522 Supervisor Training -Non-Sworn 2 Units
Hours: 40 hours LEC
This course examines the roles and responsibilities of the non-sworn public safety first-line supervisor, focusing on ethical leadership, vicarious liability and sources of influence. Students will explore the use of effective communication in counseling, mentoring, recognizing training opportunities and performance evaluations. Pass/No Pass only.

PSTC 1525 Supervisory Update .5-1 Units
Prerequisite: PSTC 1520
Hours: 1 hour LEC; 23-39 hours LAB
This course is designed to provide the existing law enforcement supervisor with updated training on contemporary supervisory issues and techniques. Topics include leadership and ethics, tactical resources, legal issues, general orders, use of force and progressive discipline. This course is presented in educational partnership with the Sacramento Police Department and is accredited by the Commission on Peace Officer Standards and Training (POST) with POST Certification number #9270-1200 and #1039-1200. Pass/No Pass only.

PSTC 1531 Frontline Leadership SPD 3 Units
Hours: 71 hours LEC; 12 hours LAB
This course is designed to enhance the leadership skills of line level personnel, both sworn and civilian. It is not intended for supervisors. The course also introduces strategies for dealing with a variety of workplace challenges and ethics issues. Pass/No Pass only.

PSTC 1533 Internal Affairs Investigation 1 Unit
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
Hours: 16 hours LEC; 8 hours LAB
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 Program (TOPS) 4 Units
Hours: 72 hours LEC; 8 hours LAB
This course introduces the new police supervisor to the responsibilities and job requirements of the sergeant position. Emphasis is placed on leadership, handling of critical incidents, major crimes, internal affairs, and pursuit liability. Pass/No Pass only.

PSTC 1542 Property and Evidence Room Management 1.25 Units
Hours: 24 hours LEC
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 2 Units
Hours: 36 hours LEC; 4 hours LAB
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 2 Units
Prerequisite: PSTC 1550
Hours: 36 hours LEC; 4 hours LAB
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 2 Units
Prerequisite: PSTC 1551
Hours: 36 hours LEC; 4 hours LAB
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 2 Units
Hours: 40 hours LEC
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 cases for prosecution in 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 2 Units
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
Hours: 40 hours LEC
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 1 Unit
Prerequisite: PSTC 1571
Hours: 24 hours LEC
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 1 Unit
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.
Hours: 24 hours LEC
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 1581 Volunteers in Partnership with the Sheriff - Module A 1 Unit
Hours: 26 hours LEC
This course is designed as an entry level course for individuals who desire to work for law enforcement in a volunteer capacity. Topics include peer support, basic law, scams and frauds, crime prevention and report writing. Pass/No Pass only.

PSTC 1582 VIPS Academy - Module B 1 Unit
Prerequisite: PSTC 1581
Hours: 25 hours LEC
This course is designed as the second of two courses to assist citizen volunteers to better understand the various aspects of the law enforcement community. Topics include traffic control, explosives, radio procedures, drugs and search and rescue techniques. Pass/No Pass only.

PSTC 1584 Life Skills - Power Program - Sac Sheriff 1 Unit
Hours: 26 hours LEC
This course is designed to assist those who have a criminal background in developing life skills. Course topics include Domestic Violence, Substance Abuse, Identifying Drug Problems, Anger Management, and Communication Techniques. Pass/No Pass only.

PSTC 1585 Employment Training - Power Program - SSD 1 Unit
Hours: 26 hours LEC
This course is designed to prepare those who have a criminal background in seeking employment. Course topics include completing employment applications and resumes, navigating the job interview and job seeking skills. Pass/No Pass only.

PSTC 1586 Citizens Academy - SPD 1 Unit
Hours: 12 hours LEC, 24 hours LAB
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 Defensive Tactics Instructor 1.25 Units
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.
Hours: 80 hours LAB
This course introduces students with the requisite skills and knowledge to provide weaponless defense instruction in POST certified law enforcement and/or STC certified correctional environments. Instruction is provided in the areas of defense and liability issues for police and corrections, health and safety precautions for instructing manipulative skills, safe and proper application of control holds, take-down maneuvers and ground fighting. Pass/No Pass only.

PSTC 1603 Defensive Tactics Instructor-Advanced .5 Units
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.
Hours: 40 hours LAB
This course provides students with advanced skills and knowledge for providing weaponless defense ground fighting instruction in POST certified law enforcement and/or 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 Defensive Tactics Instructor Update .25 Units
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.
Hours: 24 hours LAB
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 1.25 Units
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) pass 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.
Hours: 80 hours LAB
This course introduces students to effective instructional design and methods for teaching a Peace Officers Standards and Training (POST) certified course in the use of impact weapons course in public safety environments. Topics include adult learning, aggression and suspect action, POST regulations for instructing, evaluating, and testing in the use of impact weapons and documentation per the POST Administrative Manual (PAM), relevant case law, legal issues, physical warm-ups, striking and blocking techniques with the baton and the yawara stick, personal body weapons, and confrontational exercises and evaluations. Pass/No Pass only.

PSTC 1622 Impact Weapons Instructor - Update .25 Units
Prerequisite: PSTC 1621
Enrollment Limitation: Students must 1) Be free of felony convictions; 2) pass 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.
Hours: 16 hours LAB
This course provides impact weapons instructors with updated skills and knowledge in the use of force and the accompanying legal issues in the public safety environment. Topics include review of baton use, striking techniques, and legal and liability updates. Pass/No Pass only.

PSTC 1625 Arrest Control and Baton Instructor - SPD 3 Units
Prerequisite: PSTC 1200
Hours: 42 hours LEC; 38 hours LAB
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) 1 Unit
Enrollment Limitation: Students must 1) Be free of felony convictions; 2) pass 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.
Hours: 19 hours LEC; 5 hours LAB
This POST certified course complies with California Penal Code 832. It provides a basic introduction to legal aspects of shooting and safety. Topics include handgun familiarization, safety, shooting principles, and live fire exercises. Pass/No Pass only.

PSTC 1645 Force and Weaponry - Basic 1.5 Units
Prerequisite: PSTC 1273
Hours: 24 hours LEC; 16 hours LAB
This course is designed for field probation officers who are required to carry firearms in the performance of their duties. Topics include day and night shooting, use of force, firearms safety, principles of arrest control, and tactical reloading. Pass/No Pass only.

PSTC 1646 Force and Weaponry - Advanced 1 Unit
Prerequisite: PSTC 1645
Enrollment Limitation: Students must 1) Be free of felony convictions; 2) pass 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.
Hours: 16 hours LEC; 8 hours LAB
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 SSD .75 Unit
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) pass 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.
Hours: 10 hours LEC; 14 hours LAB
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. Instruction includes the safe and proper handling of the long rifle, consideration of environmental factors, tactical shooting, tactical movement, and shooting under dim light conditions. This course is formerly known as SCSD 1221. Pass/No Pass only.

PSTC 1650 Firearms Instructor 3 Units
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 equivalency.
Enrollment Limitation: Students must 1) Be free of felony convictions; 2) pass 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.
Hours: 48 hours LEC; 32 hours LAB
This course is specifically designed to prepare experienced law enforcement personnel to teach firearms courses at the basic and in-service level. 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 pistol, rifle, and shotgun 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 2970-21640. Pass/No Pass.
PSTC 1651 Firearms Instructor Update .5 Units
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, 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.
Hours: 2 hours LEC; 22 hours LAB
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 1653 Firearms Instructor - Long Rifle 1.5 Units
Prerequisite: PSTC 1650; 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.
Hours: 30 hours LEC; 10 hours LAB
This course is designed for existing law enforcement firearms instructors to develop into effective patrol rifle instructors in the AR15 platform patrol rifle. This will be accomplished through an understanding of the weapon, legal aspects, demonstrating proficiency with the weapon, as well as specific training in the teaching of a patrol rifle course. Topics include safety protocol, liability, nomenclature, weapon employment, and student presentations. Because this course is designed to provide practical hands-on training in police tactics and weapon usage, participants will engage in activities and exercises that include a risk of injury. Pass/No Pass only.

PSTC 1654 Firearms / Rifle Instructor - Update .5 Units
Prerequisite: PSTC 1200; Firearms Instructor PSTC 1650 or Firearms Instructor - Long Rifle PSTC 1653
Hours: 2 hours LEC; 22 hours LAB
This course provides the law enforcement firearms 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, maintenance, and deployment shooting techniques. Pass/No Pass only.

PSTC 1660 Public Safety Dispatcher - Basic (SPD) 6 Units
Hours: 105 hours LEC; 15 hours LAB
This course is designed to introduce new dispatchers to the basic requirements of first responder dispatching. This course fulfills the requirement by 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) 8 Units
Prerequisite: PSTC 1660
Hours: 77 hours LEC; 203 hours LAB
This course is designed for public safety dispatchers who have successfully completed the Public Safety Dispatcher Basic Course. Topics include local geography, databases, officer safety, system inquiries, telephone systems and practical exercises. Pass/No Pass only.

PSTC 1662 Radio Dispatch Academy (SPD) 2.5 Units
Prerequisite: PSTC 1660
Hours: 33 hours LEC; 47 hours LAB
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 Program (CTP) 2 Units
Prerequisite: PSTC 1200 with a grade of “C” or better; Completion of a POST Law Enforcement Basic or Dispatcher’s Academy Hours: 34 hours LEC; 6 hours LAB
This course is designed to instruct dispatchers on the techniques for training newly assigned personnel to a communications center. Topics include leadership, training models, adult learning theories and practical exercises. Pass/No Pass only.

PSTC 1671 Automated Field Reporting (AFR) .5 Units
Prerequisite: PSTC 1660 (Public Safety Dispatcher - Basic (SPD)) or equivalent as determined by the Dean of Academy instruction.
Hours: 4 hours LEC; 16 hours LAB
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 .25-1.5 Units
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.
Hours: 6-16 hours LEC; 0-40 hours LAB
This course updates and advances the student’s existing knowledge and skill set associated with effective policing in dynamic environments. Instruction includes tactical firearms, arrest and control, first aid/CPR refresher, and tactical communication. This course is formerly known as SCSD 1150. Pass/No Pass only.
PSTC 1684  Continued Professional Training - Sacramento Police
Department .25-2.5 Units
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.
Hours: 40-40 hours LEC; 4-40 hours LAB
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 .25 Units
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
Hours: 3 hours LEC; 5 hours LAB
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 1695  Media for the Public Information Officer or Public Affairs Officer 2 Units
Hours: 40 hours LEC
This course is designed for the new Public Information Officer, Public Affairs Officer or individual whose responsibility it is to work with the media. Topics include legal issues, issue management, crisis and incident management, media management, interview training and writing for the media. Pass/No Pass only.

PSTC 1713  Special Weapons and Tactics - Commander 1.5 Units
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.
Hours: 20 hours LEC; 30 hours LAB
This course is designed for supervisors or command staff assigned responsibility for a SWAT unit. Topics include tactical entries, utilizing assault weapons, barricaded subjects, and conducting tactical rescues. This course was formerly known as SCSD 1232. Pass/No Pass only.

PSTC 1720  Defensive Driving .25 Units
Hours: 8 hours LEC
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 .5 Units
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.
Hours: 6 hours LEC; 12 hours LAB
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) 1 Unit
Prerequisite: PSTC 1200; Completion of a Commission on Peace Officer Standards and Training (POST) Basic Academy
Hours: 12 hours LEC; 28 hours LAB
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 program, Emergency Response, Pursuit Driving, and Civil Liability. Pass/No Pass only.

PSTC 1734  Basic K9 Training 7 Units
Hours: 8 hours LEC; 372 hours LAB
This course is designed to provide officers with skills and knowledge in all areas of canine (K9) training and deployment. Topics include home care, kenneling, obedience, narcotics, obstacles, control work, area search, bite work, canine behavior, gunfire, building search, tracking, socialization, call-outs, call-offs, multiple agitators, and vehicle deployments. Pass/No Pass only.
PSTC 1744 Less Lethal Force Update- SPD .75 Units
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.
Hours: 12 hours LEC; 6 hours LAB
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) .5 Units
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.
Hours: 32 hours LAB
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 1 Unit
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.
Hours: 8 hours LEC; 32 hours LAB
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 1760 Basic Crime Prevention 2 Units
Hours: 40 hours LEC
This course is designed for new law enforcement personnel who provide basic crime prevention services for community members. Topics include physical hardware, alarm applications, use of environmental design, security surveys, community support, and program evaluation. Pass/No Pass only.

PSTC 1761 Crime Prevention Through Environmental Design 2 Units
Hours: 40 hours LEC
This course is designed for crime prevention personnel and city and county planners dealing with environmental designs. Topics include reviewing new construction submittals and its impact on law enforcement, community policing, problem solving and theory and process. Pass/No Pass only.

PSTC 1763 High Rise Policing and Crime Prevention through Environmental Design 2 Units
Prerequisite: PSTC 1200
Hours: 40 hours LEC
This course provides participants with an awareness of the specific and unique considerations for designing high rise structures relative to preparing for, preventing, and responding to high rise incidents. Topics include infrastructure protection, critical assessment and management, crime prevention, physical security, mass evacuations and terror mitigation. Pass/No Pass only.

PSTC 1764 Communications: Train the Trainer 1 Unit

PSTC 1765 Oriented Policing Program (POPPS). T opics include introduction to COPPS and POPPS, problem solving, facilitating community meetings, politics and Section 8 housing. Pass/No Pass only.

PSTC 1771 Faith in Crisis 1.5 Units
Hours: 24 hours LEC
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 1 Unit
Hours: 18 hours LEC
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 1777 Interpersonal and Tactical Communications: Train the Trainer 1 Unit
Prerequisite: PSTC 1200
Hours: 24 hours LEC
This course is designed for the individual who is assigned to or intends to teach Interpersonal and Tactical Communications. Topics include elements of communication, persuasion techniques, questioning techniques, adult learning concepts and lesson planning. Pass/No Pass only.
PSTC 1780  Campus Law Enforcement  2 Units
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, 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.
Hours: 36 hours LEC; 4 hours LAB
This course extends the student’s fundamental knowledge of and skill set in contemporary law enforcement and peacekeeping in diverse societies to include the considerations and challenges unique to the campus environment. Topics include the roles and responsibilities of school police, mandatory reporting requirements, constitutional, case, and juvenile law specific to school campuses, situational and tactical awareness in the education setting, clique structure, gang culture, dynamics of student behavior, and application of crowd control, emergency management, and incident command principles on and around campus. 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  2 Units
Prerequisite: PSTC 1200
Hours: 40 hours LEC
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 1783  Campus Law Enforcement Supervisor  1.5 Units
Prerequisite: PSTC 1780
Hours: 28 hours LEC; 12 hours LAB
This course is designed to provide skills and knowledge for the campus law enforcement supervisor employed by a school district. Topics include the role and responsibilities of the campus supervisor, administrative processes, campus safety plans, violence mitigation, crowd control, disaster and emergency management, disciplinary and truancy hearings, legal update, and liability issues for campus supervisors. Pass/No Pass only.

PSTC 1787  School Security Officer  1 Unit
Hours: 24 hours LEC
This course is designed for security officers and guards (watchperson, 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 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 1788  Crime Scene Investigation  2 Units
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, 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.
Hours: 36 hours LEC; 4 hours LAB
This course provides the basic understanding and techniques for the crime scene investigation personnel to properly and efficiently secure and protect crime scene(s) and evidence to be properly handled by the crime scene investigator. Topics include the collection and preservation of evidence, documenting the scene, the proper use of crime scene photography, the use of crime scene equipment, the use of crime scene tape, and the chain of custody. This course is certified by the California Commission on Peace Officer Standards and Training (POST), #2970-21115. Pass/No Pass only.

PSTC 1790  Criminal Justice Ethics  1.5 Units
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, 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.
Hours: 36 hours LEC; 4 hours LAB
This course provides the basic understanding and techniques for the crime scene investigation personnel to properly and efficiently secure and protect crime scene(s) and evidence to be properly handled by the crime scene investigator. Topics include the collection and preservation of evidence, documenting the scene, the proper use of crime scene photography, the use of crime scene equipment, the use of crime scene tape, and the chain of custody. This course is certified by the California Commission on Peace Officer Standards and Training (POST), #2970-21115. Pass/No Pass only.

PSTC 1791  Legal Research and Writing  1 Unit
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, 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.
Hours: 36 hours LEC; 4 hours LAB
This course provides the basic understanding and techniques for the crime scene investigation personnel to properly and efficiently secure and protect crime scene(s) and evidence to be properly handled by the crime scene investigator. Topics include the collection and preservation of evidence, documenting the scene, the proper use of crime scene photography, the use of crime scene equipment, the use of crime scene tape, and the chain of custody. This course is certified by the California Commission on Peace Officer Standards and Training (POST), #2970-21115. Pass/No Pass only.

PSTC 1800  Interview and Interrogation Techniques  2 Units
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.
Hours: 36 hours LEC; 4 hours LAB
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  1.5-2 Units
Prerequisite: PSTC 1200
Hours: 32-40 hours LEC
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  1 Unit
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.
Hours: 24 hours LEC
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 1806  Crime Analysis  1.5 Units
Hours: 32 hours LEC
This course is designed for the newly hired, promoted, or assigned crime analyst and/or supervisor responsible for law enforcement crime analysis functions with an agency. Topics include building a crime analysis unit, staffing, data collection and information dissemination. Pass/No Pass only.
PSTC 1807 Advanced Identification of Organized Criminal Street Gangs and Criminal Gang Activities .25-.75 Units
Hours: 8-16 hours LEC
This course provides students with information and resource identification critical to the reduction of gang violence. Pass/No Pass only.

PSTC 1808 Advanced Organized Gang Investigations 1 Unit
Prerequisite: PSTC 1200, 1519, 1878, or 1879 with a grade of “C” or better
Hours: 24 hours LEC; 8 hours LAB
This course enhances the skill level of law enforcement officers, probation and parole officers with information vital to reduce gang violence. Topics include identification and documentation of organized gang activity, proactive investigative techniques, developing an investigative plan, case initiation and operational planning, case organization and documentation, and multi-location and multi-jurisdictional search warrants.

PSTC 1812 Fingerprint Identification - Basic 2 Units
Hours: 40 hours LEC
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 1 Unit
Hours: 24 hours LEC
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 2 Units
Prerequisite: PSTC 1812
Hours: 40 hours LEC
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 1820 Crime Scene Investigation - Basic 2 Units
Prerequisite: PSTC 1200
Hours: 30 hours LEC; 30 hours LAB
This course is designed for newly assigned law enforcement agency crime scene investigators who are responsible for conducting crime scene investigations. Topics include evidence integrity, documentation, evidence recognition and preservation, firearms study, latent prints, and evidence handling and storage. Pass/No Pass only.

PSTC 1852 Drug and Alcohol Recognition 1 Unit
Prerequisite: PSTC 1200
Hours: 24 hours LEC
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 .5-1 Units
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.
Hours: 4-8 hours LEC; 32-36 hours LAB
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 1854 Drug Recognition Evaluator Course 3.5 Units
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.
Hours: 64 hours LEC; 8 hours LAB
This course enhances the skills of law enforcement personnel to evaluate and provide expert testimony on the effects of drugs and alcohol. Topics include psycho-physical tests, eye examinations, alcohol workshop, signs and symptoms, drugs in society, vehicle operation, drug classification process and procedures, nystagmus, convergence, pupil size and reaction to light, physiology and drugs, depressants, stimulants, physician's desk reference, hallucinogens, associative anesthetics, narcotic analogs, inhalants, cannabis, report writing, curriculum vitae, and case preparation and testimony. Pass/No Pass only.

PSTC 1870 Disaster Preparedness 1.25 Units
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.
Hours: 19 hours LEC; 12 hours LAB
This course prepares students to respond to disasters and take the necessary steps to minimize loss of life and property. Topics include floods, hazardous materials, transportation disasters, wildfires, earthquakes, national security, and critical incidents. This course is formerly known as SCSD 1209. Pass/No Pass only.
PSTC 1874  Traffic Collision Investigation -
Intermediate 2 Units
Prerequisite: PSTC 1900
Hours: 40 hours LEC
This course is designed to expand the investigative knowledge and
skills of the traffic collision investigator. Topics include definitions
and terminologies associated with minor and major collisions,
measuring and diagramming the collision scene and speed
computation. Pass/No Pass only.

PSTC 1900  Traffic Collision - Basic 2 Units
Prerequisite: PSTC 1200
Hours: 40 hours LEC
This course provides in-depth instruction into the multiple
disciplines of traffic collision investigation. Topics include scene
management techniques and 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 the Northwestern
University traffic template functions and nomographs, and an in-
depth discussion on proper traffic collision documentation and
(CIM). This course satisfies the prerequisites for the Intermediate
Collision Investigation course, as well as the requirements of Vehicle
Code Section 40600.

PSTC 1902  Traffic Accident Reconstruction 4 Units
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.
Hours: 72 hours LEC; 8 hours LAB
This course advances the skill set of law enforcement personnel
assigned to investigate traffic collisions. It covers the knowledge and
skills needed to determine at-impact speeds of collision-involved
vehicles and to draw conclusions of how and why the collision
occurred. Topics include math and physics review, reconstruction
principles, crush analysis, conservation of momentum analysis,
heavy duty and articulated vehicles, motorcycle collision, vehicle vs.
pedestrian, and bicycle collision analysis. Pass/No Pass only.

PSTC 1904  LIDAR Operator Course .5 Units
Hours: 9 hours LEC
This course covers the legal and technical use of light distance and
ranging speed enforcement (LIDAR). It includes the history of
LIDAR, applicable case law, and visual speed determination skills.
May be taken two times for credit. Pass/No Pass only.
REAL ESTATE

Area: Business & Computer Science
Dean: Kirsten Corbin
Phone: (916) 484-8361
Counseling: (916) 484-8572

Real Estate Degree
Major Code: 011223A01

The associate degree program in real estate focuses on the practical application and concepts utilized in real estate markets and career fields. Course work includes real estate principles, legal aspects, practice, finance, economics and appraisal.

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 Opportunities
Students earning this degree are on the pathway to work in the following fields: real estate salesperson, real estate broker, or small business owner.

Requirements for Degree 34-35 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 101</td>
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<tr>
<td>or ACCT 301</td>
<td>Financial Accounting</td>
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<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>or MGMT 360</td>
<td>Management Communication</td>
<td>3</td>
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<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
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<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
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<tr>
<td>RE 300</td>
<td>California Real Estate Principles</td>
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<td>RE 310</td>
<td>Real Estate Practice</td>
<td>3</td>
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<td>RE 320</td>
<td>Real Estate Finance</td>
<td>3</td>
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<tr>
<td>RE 330</td>
<td>Legal Aspects of Real Estate</td>
<td>3</td>
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<tr>
<td>RE 342</td>
<td>Real Estate Appraisal</td>
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<tr>
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<td>BUS 210</td>
<td>The Business Plan</td>
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<td>BUS 212</td>
<td>Marketing for Small Businesses</td>
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<tr>
<td>CISC 300</td>
<td>Computer Familiarization</td>
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<td>CISC 305</td>
<td>Introduction to the Internet</td>
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<tr>
<td>BUS 320</td>
<td>Concepts in Personal Finance</td>
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<td>MKT 310</td>
<td>Selling Professionally</td>
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<td>MKT 314</td>
<td>Advertising</td>
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<tr>
<td>RE 360</td>
<td>Real Estate Economics</td>
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Requirements for Certificate 24 Units

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<td>BUS 110</td>
<td>Business Economics</td>
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<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
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<tr>
<td>ECON 304</td>
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Real Estate Certificate
Major Code: 011223C01

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.

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.

See losrios.edu/gainful-emp-info/gedt.php?major=011223C01 for Gainful Employment Disclosure.

Requirements for Certificate 24 Units

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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.

DEPARTMENT CERTIFICATES

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.

Associate Degree Requirements: The Real Estate Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
### 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 knowledge of real estate transactions
- qualify for the California Real Estate Salesperson’s License Examination

### Requirements for Certificate 9 Units

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>RE 300 California Real Estate Principles</td>
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<tr>
<td>RE 310 Real Estate Practice</td>
<td>3</td>
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<tr>
<td>And a minimum of 3 units from the following:</td>
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<tr>
<td>ACCT 301 Financial Accounting (4)</td>
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<tr>
<td>BUS 340 Business Law (3)</td>
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<tr>
<td>RE 320 Real Estate Finance (3)</td>
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<tr>
<td>RE 330 Legal Aspects of Real Estate (3)</td>
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<tr>
<td>RE 342 Real Estate Appraisal (3)</td>
<td></td>
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<tr>
<td>RE 350 Real Property Management (3)</td>
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<td>RE 360 Real Estate Economics (3)</td>
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</table>

### Real Estate

#### RE 295 Independent Studies in Real Estate 1-3 Units

**Prerequisite: None**

**Hours: 54-162 hours LAB**

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 300 California Real Estate Principles 3 Units

**Course Transferable to CSU**

**Hours: 54 hours LEC**

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 3 Units

**Course Transferable to CSU**

**Hours: 54 hours LEC**

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 3 Units

**Advisory: RE 300; RE 300; ENGWR 102 or 103 and ENGRD 116 or ESLR 320 and ESEW 320; BUS 105**

**Course Transferable to CSU**

**Hours: 54 hours LEC**

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 3 Units

**Advisory: RE 300; RE 300; ENGWR 102 or 103 and ENGRD 116 or ESLR 320 and ESEW 320; BUS 105**

**Course Transferable to CSU**

**Hours: 54 hours LEC**

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 3 Units

**Course Transferable to CSU**

**Hours: 62 hours LEC**

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 (effective January 1, 2008). 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 Bureau of Real Estate (BRE) college-level educational requirements (3 semester units) for the salesperson and broker examinations.

#### RE 350 Real Property Management 3 Units

**Course Transferable to CSU**

**Hours: 54 hours LEC**

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 3 Units

**Advisory: RE 300**

**Course Transferable to CSU**

**Hours: 54 hours LEC**

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 1-3 Units

**Prerequisite: None**

**Course Transferable to CSU**

**Hours: 54-162 hours LAB**

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.
### Recreation

**Major Code:** 011226A01

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.

### 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 Opportunities

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.

<table>
<thead>
<tr>
<th>Requirements for Degree</th>
<th>20 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 312 Child Development (3)</td>
<td>3</td>
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<tr>
<td>or PSYC 372 Child Development (3)</td>
<td></td>
</tr>
<tr>
<td>GERON 302 Psychology of Aging: Adult Development and Aging (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 374 Psychology of Aging: Adult Development and Aging (3)</td>
<td></td>
</tr>
<tr>
<td>RECR 300 Introduction to Recreation and Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td>RECR 310 Outdoor Recreation</td>
<td>3</td>
</tr>
<tr>
<td>RECR 320 Recreation Activity Leadership</td>
<td>3</td>
</tr>
<tr>
<td>SPEECH 301 Public Speaking (3)</td>
<td>3</td>
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<tr>
<td>or SPEECH 331 Group Discussion (3)</td>
<td></td>
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<tr>
<td>A minimum of 2 units from the following</td>
<td>2</td>
</tr>
<tr>
<td>RECR 498 Work Experience in Recreation (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>

### Associate Degree Requirements

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

### Recreation Degree

**RECR 300 Introduction to Recreation and Leisure Services 3 Units**

- **Course Transferable to CSU**
- **Hours:** 54 hours LEC

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 3 Units**

- **Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 320 AND ESLW 320.
- **Course Transferable to CSU**
- **Hours:** 54 hours LEC

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. Field trips are required.

**RECR 320 Recreation Activity Leadership 3 Units**

- **Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
- **Course Transferable to CSU**
- **Hours:** 36 hours LEC; 54 hours LAB

This is a basic 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. Special emphasis is placed on the role of the face-to-face leader in organizing recreational programs in a variety of settings. Field trips are required.

**RECR 498 Work Experience in Recreation 1-4 Units**

- **Advisory:** Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
- **Enrollment Limitation:** Students must be in a paid or unpaid internship, volunteer position, or job related to recreation with a cooperating site supervisor. Students are advised to consult with the Physical Education Department faculty to review specific certificate and degree work experience requirements.
- **General Education:** AAAS Area III(b)
- **Course Transferable to CSU**
- **Hours:** 60-300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 30 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
Respiratory Care Degree

Major Code: 011227A01

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.

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.

The program is accredited by the Commission on Accreditation for Respiratory Care (CoARC), P.O. Box 54876, Hurst, TX 76054-4876; (817) 283-2835. Further information regarding the respiratory care profession is available on the campus website: arc.losrios.edu

You can also reach program coordinator Lisa Hunsaker Ilaga by email at: IlagaL@arc.losrios.edu

Career Opportunities

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 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.

Successful completion of the respiratory care program qualifies the graduate for an Associate in Science degree and eligibility to apply for: (1) licensure as a Respiratory Care Practitioner through the Respiratory Care Board of CA, and (2) the national credentialing examination for advanced practitioner (Registered Respiratory Therapist) which is administered by the National Board for Respiratory Care (NBRC).

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 110 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.
• PHYS 310 or PHYS 350 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 on the college website: arc.losrios.edu and are due in the Health and Education office no later than 3:00 p.m. the second Friday in October.
• 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.

(continued on next page)
### Respiratory Care

#### Requirements for Degree: 66-68 Units

<table>
<thead>
<tr>
<th>Pre-RC Semesters</th>
<th>66-68 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Semester:</strong></td>
<td></td>
</tr>
<tr>
<td>RC 110</td>
<td>Cardiopulmonary Pathologies for Respiratory Care</td>
</tr>
<tr>
<td>RC 111</td>
<td>Principles of Respiratory Care</td>
</tr>
<tr>
<td><strong>2nd Semester:</strong></td>
<td></td>
</tr>
<tr>
<td>RC 121</td>
<td>Concepts of Airway Care &amp; Mechanical Ventilation</td>
</tr>
<tr>
<td>RC 122</td>
<td>Airway Care &amp; Mechanical Ventilation Laboratory</td>
</tr>
<tr>
<td>RC 123</td>
<td>Clinical Externship I</td>
</tr>
<tr>
<td>RC 124</td>
<td>Respiratory Care Pharmacology</td>
</tr>
<tr>
<td><strong>3rd Semester:</strong></td>
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<tr>
<td>RC 130</td>
<td>Respiratory Care in Neonatal and Pediatric Populations &amp; Diagnostic Studies</td>
</tr>
<tr>
<td>RC 131</td>
<td>Respiratory Care in Neonatal and Pediatric Populations &amp; Diagnostic Studies Laboratory</td>
</tr>
<tr>
<td>RC 132</td>
<td>Clinical Externship II</td>
</tr>
<tr>
<td><strong>4th Semester:</strong></td>
<td></td>
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<tr>
<td>RC 140</td>
<td>Professional Development in Respiratory Care</td>
</tr>
<tr>
<td>RC 142</td>
<td>Clinical Externship III</td>
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<tr>
<td><strong>Any Semester:</strong></td>
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</tbody>
</table>

A minimum of 3 units from the following: 3 Units

<table>
<thead>
<tr>
<th>ENGR 300</th>
<th>College Composition (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 480</td>
<td>Honors College Composition (3)</td>
</tr>
<tr>
<td>ESLW 340</td>
<td>Advanced Composition (4)</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following: 3 Units

<table>
<thead>
<tr>
<th>ANTH 310</th>
<th>Cultural Anthropology (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 481</td>
<td>Honors Cultural Anthropology (3)</td>
</tr>
<tr>
<td>PSYC 300</td>
<td>General Principles (3)</td>
</tr>
<tr>
<td>PSYC 320</td>
<td>Social Psychology (3)</td>
</tr>
<tr>
<td>PSYC 390</td>
<td>Psychology of Death and Dying (3)</td>
</tr>
<tr>
<td>PSYC 480</td>
<td>Honors General Principles (3)</td>
</tr>
</tbody>
</table>

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

#### Respiratory Care

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 110</td>
<td>Cardiopulmonary Pathologies for Respiratory Care</td>
<td>3 Units</td>
</tr>
<tr>
<td>Corequisite: RC 111</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: Eligible for ENGR 310 or ENGR 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.</td>
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</tr>
<tr>
<td>Enrollment Limitation: Acceptance into the Respiratory Care Program. Hours: 54 hours LEC</td>
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</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>RC 111</td>
<td>Principles of Respiratory Care</td>
<td>8 Units</td>
</tr>
<tr>
<td>Corequisite: RC 110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: Eligible for ENGR 310 or ENGR 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment Limitation: Acceptance into the Respiratory Care Program. Hours: 126 hours LEC; 54 hours LAB</td>
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</tbody>
</table>

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. Field trips may be required.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 121</td>
<td>Concepts of Airway Care &amp; Mechanical Ventilation</td>
<td>4 Units</td>
</tr>
<tr>
<td>Prerequisite: RC 110 and 111 with grades of “C” or better</td>
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<tr>
<td>Corequisite: RC 122, 123, and 124</td>
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<tr>
<td>Hours: 72 hours LEC</td>
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</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 122</td>
<td>Airway Care &amp; Mechanical Ventilation Laboratory</td>
<td>1 Unit</td>
</tr>
<tr>
<td>Prerequisite: RC 110 and 111 with grades of “C” or better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: RC 121, 123, and 124</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours: 54 hours LAB</td>
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</tbody>
</table>

This course introduces higher levels of clinical practice including critical care. It covers Advanced Cardiac Life Support (ACLS), airway protective procedures, and mechanical ventilation. Field trips may be required.
RC 123  Clinical Externship I  3 Units
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.
Hours: 162 hours LAB
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  3 Units
Prerequisite: RC 110 and 111 with grades of “C” or better
Corequisite: RC 121, 122, and 123
Hours: 54 hours LEC
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  3 Units
Prerequisite: RC 121, 122, 123, and 124 with grades of “C” or better
Corequisite: RC 131 and 132
Hours: 54 hours LEC
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  1 Unit
Prerequisite: RC 121, 122, 123, and 124 with grades of “C” or better
Corequisite: RC 130 and 132
Hours: 54 hours LAB
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. Field trips may be required. Students must successfully complete the National Board for Respiratory Care 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  6 Units
Prerequisite: RC 121, 122, 123, and 124 with grades of “C” or better
Corequisite: RC 130 and 131
Enrollment Limitation: Students must meet the health requirements of the Los Rios Community College District for Allied Health Programs and certification in Advanced Cardiac Life Support.
Hours: 324 hours LAB
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  2 Units
Prerequisite: RC 130, 131, and 132 with grades of “C” or better
Corequisite: RC 142
Hours: 36 hours LEC
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 state and national licensing examinations, and practice examinations for the National Board of Respiratory Care’s Therapist Multiple-Choice Examination and Clinical Simulation Self Assessment Examinations are also covered.

RC 142  Clinical Externship III  6 Units
Prerequisite: RC 130, 131, and 132 with grades of “C” or better
Corequisite: RC 140
Hours: 324 hours LAB
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. Field trips are required.
### General Science Degree

**Major Code:** 011229A01

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.

### 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.

### Requirements for Degree 18 Units

A minimum of 18 units from the following: ........................................................... 18

**Physical Science Courses:**

- ASTR 300, 310, 320, 330, 400, 481, 495, 499
- CHEM 305, 306, 309, 310, 400, 401, 420, 421, 423, 495, 499
- GEOG 300, 301, 305, 306, 307, 308, 309, 391, 392, 393, 394, 495, 499
- GEOL 300, 301, 305, 306, 310, 311, 320, 325, 330, 331, 345, 390, 495, 499
- PHYS 310, 311, 312, 350, 410, 421, 431, 495, 499
- PS 300, 301, 495, 499

**Biological Science Courses:**

- ANTH 300, 301, 303, 370, 372, 480, 495, 499
- BIOL 300, 301, 303, 305, 310, 322, 332, 342, 352, 370, 375, 390, 400, 410, 415, 420, 430, 431, 440, 442, 482, 495, 499
- BIOT 301, 305, 307, 311, 312, 499
- NATR 300, 302, 303, 304, 305, 306, 307, 310, 320, 322, 324, 330, 332, 346, 495, 499
- PSYC 310, 311, 495, 499

1 must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

### Associate Degree Requirements:

The General Science Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Sign Language Studies – new program titles
see Deaf Culture & ASL Studies, page 203
see ASL-English Interpreter Preparation, page 139
Social Science Degree

Major Code: 011236A01

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 scientific disciplines. The interdisciplinary approach enables students to understand how issues and events are shaped by diverse socio-economic, political, ecological, biological and geographical forces.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

• research and analyze topics from an interdisciplinary perspective.
• integrate various social-scientific perspectives into the understanding of the subject matter.
• compare and contrast the relative contribution of courses offered in various disciplines to an overall understanding of issues and events.
• 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.

Requirements for Degree 18 Units

A minimum of 18 units from the following:.......................................................... 18

Transferable courses must be selected from four of the following areas: anthropology, economics, geography, history, philosophy, political science, psychology (except PSYC 333), and sociology. Courses used for General Education purposes cannot be used for this degree.

Associate Degree Requirements: The Social Science Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Social Justice Studies: Race and Ethnicity A.A. for Transfer Degree
Major Code, CSU GE: 010710A01
Major Code, IGETC: 010710A02

Social Justice Studies: Women, Gender, and LGBTQ Studies A.A. for Transfer Degree
Major Code, CSU GE: 010711A01
Major Code, IGETC: 010711A02

(Degrees added after catalog was printed, see June 2019 Addendum for full listing.)

Sociology is the study of human society in all its manifestations. Its aim is to discover the process and structure of human interaction, to identify the main forces that sustain or weaken social groups, and to determine the conditions that transform social life. Sociology, like any science, is a disciplined, intellectual quest for knowledge about the fundamental nature of things.

Sociology A.A. for Transfer Degree
Major Code, CSU GE: 010761A01
Major Code, IGETC: 010761A02

This Associate in Arts in Sociology for Transfer provides a path to students who wish to transfer to a CSU campus in Sociology and serves the diverse needs of students who wish to obtain a broad and an in-depth understanding of the field. Additionally, this degree allows students to learn the fundamental principles and practices of Sociology in order to create a solid foundation for their future personal and academic endeavors.

The Associate in Arts in Sociology for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

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

Student Learning Outcomes
Upon completion of this program, the student will be able to:

• differentiate between scientifically-based sociological knowledge and hearsay, 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 Opportunities
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.

Requirements for Degree 18 Units
SOC 300 Introductory Sociology (3) .................................................................3
or SOC 480 Introductory Sociology - Honors (3) .................................3
SOC 301 Social Problems.........................................................................3
PSYC 330 Introductory Statistics for the Behavioral Sciences ...............3
A minimum of 6 units from the following: ..............................................6
PSYC 335 Research Methods in Psychology (3)
SOC 318 Introduction to Crime, Deviance, and Social Control (3)
SOC 320 Minorities in America (3)
SOC 342 Gender Relations in American Society (3)
A minimum of 3 units from the following: ..............................................3
ANTH 310 Cultural Anthropology (3)
GEOG 310 Human Geography: Exploring Earth’s Cultural Landscapes (3)
PSYC 300 General Principles (3)
or PSYC 480 Honors General Principles (3)
PSYC 354 The Psychology of Family Life and Intimate Relationships in a Diverse Society (3)
SOC 309 Self and Society (3)
SOC 350 Sociology of Popular Culture (3)

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

**Major Code: 011237A01**

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.

**Career Opportunities**

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.

**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.

**Requirements for Degree**

29 Units

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<tr>
<th>Course</th>
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<td>ANTH 310</td>
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<td>or ANTH 481</td>
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<td>Principles of Macroeconomics</td>
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<td>HIST 308</td>
<td>History of World Civilizations, 1500 to Present</td>
<td>3</td>
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<td>POLS 310</td>
<td>Introduction to International Relations</td>
<td>3</td>
</tr>
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<td>or POLS 480</td>
<td>Introduction to International Relations - Honors</td>
<td>3</td>
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<td>SOC 300</td>
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A minimum of 6 units from the following:

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<td>IS 302</td>
<td>Issues in Global Studies</td>
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<tr>
<td>IS 305</td>
<td>Introduction to Middle East Studies</td>
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<tr>
<td>IS 310</td>
<td>Peace and Conflict</td>
<td>3</td>
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<td>IS 312</td>
<td>Current Global Development Issues</td>
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A minimum of 8 units from the following:

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</table>

**Associate Degree Requirements:** The International Studies AA Degree in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Social Justice Studies

**SJS 300 Introduction to Social Justice Studies** 3 Units  
Course Transferable to CSU  
Hours: 54 hours LEC  
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. (C-ID SJS 110 (effective Summer 2019))

**SJS 310 Introduction to LGBTQ Studies** 3 Units  
Course Transferable to CSU  
Hours: 54 hours LEC  
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. (C-ID SJS 130 (effective Summer 2019))

Sociology

**SOC 300 Introductory Sociology** 3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340  
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. (C-ID SOCI 110)

**SOC 301 Social Problems** 3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. It includes 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. (C-ID SOCI 115)

**SOC 309 Self and Society** 3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340  
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. (C-ID SOCI 160)

**SOC 318 Introduction to Crime, Deviance, and Social Control** 3 Units  
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. (C-ID SOCI 160)
SOC 320 Minorities in America 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLMR 340.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D0; IGETC Area 4J
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines patterns of racial and ethnic group relations in the United States of America. It employs basic sociological approaches to the study of race and ethnicity, with an emphasis on a comparative analysis of historical, social, and economic factors affecting intergroup and intragroup dynamics. Topics include prejudice, discrimination, racism, and ethnic stratification, assimilation patterns among groups, demographic shifts, civil rights, and other related topics. Field trips may be required. (C-ID SOCI 110)

SOC 325 Chicano Culture 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLMR 340.
General Education: AA/AS Area V(b); AA/AS Area VI (effective Summer 2015); CSU Area D0; IGETC Area 4J
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Same As: GERON 300
Advisory: ENGRWR 102 and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLMR 320 with a grade of “C” or better.
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRWR 300; OR ESLR 340 AND ESLMR 340
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D0; IGETC Area 4J
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID SOCI 140)

SOC 350 Sociology of Popular Culture 3 Units
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course analyzes the historical development and emergence of American popular culture and the relationship between contemporary popular culture, social institutions and collective behavior. Further, it considers popular culture within the context of social, political, and economic changes in the United States and includes an analysis of theories of popular culture, hegemony, advertising, music, and film.

SOC 480 Introductory Sociology - Honors 3 Units
Prerequisite: Placement into ENGWR 480 through the assessment process.
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J
Course Transferable to UC/CSU
Hours: 54 hours LEC
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, conflict and social change, and politics and economy. The class 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 all aspects of human experience both at the individual and societal levels. The honors section utilizes a rigorous and an intensive instructional methodology designed to challenge motivated students. (C-ID SOCI 110)

SOC 495 Independent Studies in Sociology 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
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. Speech courses are vital to developing the communication skills necessary for personal and professional success.

**Communication Studies A.A. for Transfer Degree**

Major Code, CSU GE: 010548A01  
Major Code, IGETC: 010548A02

This degree provides a foundation for students to transfer to a CSU campus with a major in Communication, Speech Communication, Communications, or Communication Studies.

The Associate in Arts degree in Communication Studies for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system.

The Associate in Arts degree in Communication Studies for Transfer (A.A.-T.) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

**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 Opportunities**

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.

**Requirements for Degree**  
18 Units

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<td>SPEECH 321</td>
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</tr>
<tr>
<td>SPEECH 331</td>
<td>3</td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
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<td>6</td>
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<tr>
<td>SPEECH 302</td>
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<tr>
<td>SPEECH 325</td>
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<td>3</td>
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<td>SOC 300</td>
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</table>

1Or any course not used previously

**Associate in Arts for Transfer Degree Requirements:**

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

SPEECH 301 Public Speaking 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340
General Education: AAAS Area II(b); CSU Area A1; IGETC Area 1C
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers oral composition and delivery of messages in public speaking situations. It focuses on how to manage anxieties about speaking in public, organize ideas when speaking to inform and persuade, use supporting materials to increase the effectiveness of messages, appeal to different audiences, and critically evaluate messages. By the end of the course, students will be more confident and effective in oral communication situations. Audio/video recording equipment may be used as an aid to self-analysis and improvement. (C-ID COMM 110)

SPEECH 302 Persuasive Speech 3 Units
Advisory: SPEECH 301 with a grade of "C" or better; and eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: CSU Area A3
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a detailed study of persuasive discourse through an understanding of basic communication principles. Emphasis is placed on the use of proofs, language, and logical thinking. Audio- and/or video-recording equipment may be used as an aid for self-analysis and improvement. (C-ID COMM 190)

SPEECH 311 Argumentation and Debate 3 Units
Advisory: ENGRW 300, ENGRW 480, or SPEECH 301
General Education: CSU Area A3
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID COMM 120)

SPEECH 321 Interpersonal Communication 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area III(b); CSU Area E1
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course focuses on communication between individuals, with emphasis on the acquisition of techniques and skills essential to self-actualization and to establishing authentic personal, social, and professional relationships. Effective communication strategies are discussed, practiced, and reflected upon both in and outside the classroom environment. (C-ID COMM 130)

SPEECH 325 Intercultural Communication 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area VI; CSU Area D; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. Emphasis is on both international culture variance and sub-cultural group-based experiential background variance. (C-ID COMM 150)

SPEECH 331 Group Discussion 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area II(b); CSU Area A1; IGETC Area 1C
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the dynamics of group communication and prepares individuals to function more effectively in groups. It focuses on oral communication in task and social groups. Topics include communication concepts and behaviors in problem solving, decision making, leadership, conflict management, and group roles and norms. (C-ID COMM 140)

SPEECH 361 The Communication Experience 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AAAS Area II(b); CSU Area A1; IGETC Area 1C
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an introduction to basic skills and concepts necessary for effective communication in a variety of contexts. Topics include effective listening, facilitation of interpersonal relationships, conflict resolution, media communication, practical group experience, and public speaking. (C-ID COMM 180)

SPEECH 495 Independent Studies in Speech 1-3 Units
Course Transferable to CSU
Hours: 54-162 hours LAB
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.
Speech - Language Pathology
Assistant Degree

Major Code: 011481A01

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.

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 Opportunities

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.

Requirements for Degree

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<td>ECE 325</td>
<td>Positive Guidance Strategies with Young Children</td>
<td>3</td>
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<td>ECE 404</td>
<td>Children with Special Needs</td>
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<td>GERON 302</td>
<td>Psychology of Aging: Adult Development</td>
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<td>or PSYC 374</td>
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<td>SLPA 105</td>
<td>Articulation and Phonology for the SLPA</td>
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<td>SLPA 110</td>
<td>Professional Issues and Practices in Speech-Language Pathology</td>
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<td>SLPA 115</td>
<td>Speech, Language, and Hearing Clinical Strategies</td>
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<td>SLPA 120</td>
<td>Clinical Considerations in Service Delivery to Clients with Communication Disorders</td>
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<td>SPEECH 325</td>
<td>Intercultural Communication</td>
<td>3</td>
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<tr>
<td>SPEECH 331</td>
<td>Group Discussion</td>
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</tbody>
</table>

Associate Degree Requirements: The Speech-Language Pathology Assistant Program Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
**Speech/Language Pathology**

**SLPA 105  Articulation and Phonology for the SLPA  3 Units**  
Prerequisite: SLPA 300 with a grade of “C” or better  
Hours: 54 hours LEC  
This course introduces principles and practices for management of individuals with articulation and/or phonologic 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  3 Units**  
Prerequisite: SLPA 300 with a grade of “C” or better  
Hours: 54 hours LEC  
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, and scope of practice are covered. A total of six (6) hours of clinical observation at off-campus locations in the area are a part of the course.

**SLPA 115  Speech, Language, and Hearing Clinical Strategies  3 Units**  
Prerequisite: SLPA 105 with a grade of “C” or better  
Hours: 36 hours LEC; 54 hours LAB  
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 120  Clinical Considerations in Service Delivery to Clients with Communication Disorders  3 Units**  
Prerequisite: SLPA 110 with a grade of “C” or better  
Hours: 54 hours LEC  
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. The scope of responsibilities and the role of the SLPA in intervention and behavior management strategies are also reviewed. A total of six (6) hours of clinical observation at off-campus locations in the area are a part of the course.

**SLPA 121  Fieldwork Experience in Speech-Language Pathology  4 Units**  
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 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.  
Hours: 18 hours LEC; 162 hours LAB  
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. All fieldwork is done in specified off-campus locations.

**SLPA 125  Strategies for Clinical Success  3 Units**  
Prerequisite: SLPA 110 with a grade of “C” or better  
Advisory: MATH 24, 25, or 41  
Hours: 36 hours LEC; 54 hours LAB  
This course explores specific materials and strategies regarding speech and language therapeutic service delivery with a focus on intervention. It covers remediation procedures, forms of augmentative and alternative communication (AAC), development of forms of AAC, the International Phonetic Alphabet, the collection and transcription of speech samples, and the collection and transcription of language samples. This course is designed as an additional opportunity to gain more experience for preparation for fieldwork as a speech-language pathology assistant.

**SLPA 300  Introduction to Communication Disorders  3 Units**  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGW 300; OR ESLR 340 and ESLW 340.  
Course Transferable to CSU  
Hours: 54 hours LEC  
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, and a minimum of three hours of video observations.
**Elementary Teacher Education A.A. for Transfer Degree**

Major Code, CSU GE: 011157A01  
Major Code, IGETC: 011157A02

The Associate in Elementary Teacher Education for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of Elementary Teacher Education. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.

The Associate in Arts degree in Elementary Teacher Education for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Arts degree in Elementary Teacher Education for Transfer (AA-T) may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

**Student Learning Outcomes**

*Upon completion of this program, the student will be able to:*

- apply the scientific method using inquiry, data collection, quantitative reasoning, and basic mathematical concepts to analyze results
- assess teaching practices and learning conditions through application of child development theories
- evaluate attitudes, actions, and behaviors indicative of a professional educator
- apply analytical reading and writing, research, and critical thinking essential for completing assigned tasks
- explain relationships and interactions between humans and the earth
- apply knowledge of world history and cultures to identify the values of a culture and work with others of diverse cultures
- analyze statistical data
- present information effectively to an intended audience
- compare and contrast various forms and styles of music, artworks, and theatrical performances

**Career Opportunities**

Public or private instructional assistant or classroom aide, grades K-8; private tutor; publishing and textbook salesperson; curriculum and test developer; teacher, grades K-12 with additional education.

**Requirements for Degree**

*56-57 Units*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>BIOL 310</td>
<td>General Biology</td>
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<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry</td>
<td>5</td>
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<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td>3</td>
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<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td></td>
</tr>
<tr>
<td>ENGED 324</td>
<td>Introduction to Elementary Teaching with Field Experience</td>
<td>3</td>
</tr>
<tr>
<td>or ECE 350</td>
<td>Introduction to Elementary Teaching with Field Experience</td>
<td>3</td>
</tr>
<tr>
<td>ENGW 300</td>
<td>College Composition (3)</td>
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<tr>
<td>or ENGW 480</td>
<td>Honors College Composition (3)</td>
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<tr>
<td>ENGW 301</td>
<td>College Composition and Literature (3)</td>
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<td>or ENGW 303</td>
<td>Argumentative Writing and Critical Thinking Through Literature (3)</td>
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<tr>
<td>or ENGW 481</td>
<td>Honors College Composition and Literature (3)</td>
<td>3</td>
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<tr>
<td>ENGW 302</td>
<td>Advanced Composition and Critical Thinking</td>
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<tr>
<td>GEOG 320</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 305</td>
<td>Earth Science</td>
<td>3</td>
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<tr>
<td>GEOL 306</td>
<td>Earth Science Laboratory</td>
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<tr>
<td>HIST 307</td>
<td>History of World Civilizations to 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 308</td>
<td>History of World Civilizations, 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>HIST 310</td>
<td>History of the United States (3)</td>
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<tr>
<td>or HIST 483</td>
<td>History of the United States - Honors (3)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 311</td>
<td>Mathematical Concepts for Elementary School Teachers - Number Systems</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 312</td>
<td>Conceptual Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>POLS 301</td>
<td>Introduction to Government: United States (3)</td>
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<tr>
<td>or POLS 481</td>
<td>Introduction to Government: United States - Honors (3)</td>
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<tr>
<td>SPEECH 301</td>
<td>Public Speaking</td>
<td>3</td>
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<tr>
<td>ARTH 300</td>
<td>Introduction to Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 300</td>
<td>Introduction to Music (3)</td>
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</tr>
<tr>
<td>TA 300</td>
<td>Introduction to the Theatre (3)</td>
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*And a minimum of 3 units from the following:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGW 310</td>
<td>Public Speaking</td>
<td>3</td>
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</tbody>
</table>

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

* at the time of the catalog printing, this revised transfer degree was pending final approval at California Community Colleges Chancellor’s Office (CCCCO). Please check the June Addendum - June 1, 2019 for final version.*
Area: Fine & Applied Arts  
Dean: Angela Milano  
Phone: (916) 484-8433  
Counseling: (916) 484-8572

### DEGREES AND CERTIFICATES

**Theatre Arts: Acting Degree**  
Major Code: 01124A01

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.

**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

**Requirements for Degree**  
30 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>TA 300</td>
<td>Introduction to the Theatre</td>
</tr>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I</td>
</tr>
<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II</td>
</tr>
<tr>
<td>TA 370</td>
<td>Theatre Movement</td>
</tr>
<tr>
<td>TA 375</td>
<td>Voice, Diction and Dialects</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft</td>
</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-up</td>
</tr>
</tbody>
</table>

And a minimum of 2 units from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>TA 344</td>
<td>Improvisation and Theatre Games (2)</td>
</tr>
<tr>
<td>TA 356</td>
<td>Acting for the Camera I (3)</td>
</tr>
<tr>
<td>TA 357</td>
<td>Acting for the Camera - II (3)</td>
</tr>
<tr>
<td>TA 362</td>
<td>Styles of Acting: Classical (3)</td>
</tr>
<tr>
<td>TA 366</td>
<td>Styles of Acting: Modern (3)</td>
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</table>

And a minimum of 2 units from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MUSM 342</td>
<td>Recording Studio Techniques I (3)</td>
</tr>
<tr>
<td>TA 404</td>
<td>Techniques of Puppetry (3)</td>
</tr>
<tr>
<td>TA 422</td>
<td>Stage Lighting (3)</td>
</tr>
<tr>
<td>TA 424</td>
<td>Advanced Technical Theatre (3)</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction (3)</td>
</tr>
<tr>
<td>TA 433</td>
<td>Costume Production (0.5 - 3)</td>
</tr>
<tr>
<td>TA 434</td>
<td>Vintage Costuming (0.5 - 2)</td>
</tr>
<tr>
<td>or FASHN 334</td>
<td>History and Theory of Costuming (3)</td>
</tr>
<tr>
<td>or FASHN 330</td>
<td>History of Western World Fashion (3)</td>
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<tr>
<td>TA 440</td>
<td>Arts Management (3)</td>
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And a minimum of 2 units from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>DANCE 310</td>
<td>Jazz Dance I (1)</td>
</tr>
<tr>
<td>DANCE 320</td>
<td>Ballet I (1)</td>
</tr>
<tr>
<td>DANCE 340</td>
<td>Ballroom Dance (1)</td>
</tr>
<tr>
<td>DANCE 360</td>
<td>Tap Dance I (1)</td>
</tr>
<tr>
<td>DANCE 377</td>
<td>Musical Theatre Dance I (2)</td>
</tr>
<tr>
<td>ENGL 380</td>
<td>Introduction to Shakespeare (3)</td>
</tr>
<tr>
<td>ENGL 382</td>
<td>Introduction to Dramatic Literature (3)</td>
</tr>
<tr>
<td>MUFFL 321</td>
<td>Basic Musicianship (3)</td>
</tr>
<tr>
<td>MUIVI 310</td>
<td>Voice Class I (2)</td>
</tr>
<tr>
<td>MUIVI 390</td>
<td>Jazz and Popular Vocal Styles and Improvisation I (2)</td>
</tr>
<tr>
<td>MUP 350</td>
<td>Concert Choir I (2)</td>
</tr>
</tbody>
</table>

Any TA or TAP course not used to fulfill other requirements of the major.

1Not used to fulfill other requirements for the major.

**Associate Degree Requirements:** The Theatre Arts: Acting Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.
Theatre Arts: Technical Production Degree
Major Code: 011242A01

This 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.

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.

Requirements for Degree 29 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>TA 300</td>
<td>Introduction to the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I</td>
<td>3</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>TAP 390-393</td>
<td>Repertory and Touring Technical Production I-IV</td>
<td>1-3</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 404</td>
<td>Techniques of Puppetry</td>
<td>3</td>
</tr>
<tr>
<td>TA 422</td>
<td>Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction</td>
<td>3</td>
</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-up I</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 9 units from the following:

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</thead>
<tbody>
<tr>
<td>ART 300</td>
<td>Drawing and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ART 302</td>
<td>Drawing and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ART 370</td>
<td>Three Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 420</td>
<td>Film Making</td>
<td>2</td>
</tr>
<tr>
<td>ARTNM 302</td>
<td>Digital Basics for Art New Media (1.5)</td>
<td></td>
</tr>
<tr>
<td>ARTNM 332</td>
<td>Digital Video</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 405</td>
<td>Digital 2D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 420</td>
<td>Introduction to 3D Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ARTPH 305</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 100</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
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<tr>
<td>FASHN 320</td>
<td>Textiles</td>
<td>3</td>
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<tr>
<td>FASHN 357</td>
<td>Apparel Construction I</td>
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<td>FASHN 358</td>
<td>Apparel Construction II</td>
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<tr>
<td>FASHN 374</td>
<td>Pattern Making and Design</td>
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<tr>
<td>FASHN 378</td>
<td>Advanced Pattern Making and Design</td>
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</tr>
<tr>
<td>FASHN 379</td>
<td>Draping</td>
<td>3</td>
</tr>
<tr>
<td>IDES 310</td>
<td>History of Interior Architecture and Furnishings I</td>
<td>3</td>
</tr>
<tr>
<td>IDES 312</td>
<td>History of Interior Architecture and Furnishings II</td>
<td>3</td>
</tr>
<tr>
<td>IDES 332</td>
<td>Portfolio and Presentation in Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>IDES 340</td>
<td>Beginning CADD for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 140</td>
<td>Concert Sound Reinforcement</td>
<td>2</td>
</tr>
<tr>
<td>MUSM 334</td>
<td>Introduction to Musical Instrument Digital Interface (MIDI)</td>
<td>2</td>
</tr>
<tr>
<td>MUSM 342</td>
<td>Recording Studio Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 344</td>
<td>Recording Studio Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 356</td>
<td>Pro Tools 101, Introduction to Pro Tools (1.5)</td>
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<tr>
<td>TA 404</td>
<td>Techniques of Puppetry</td>
<td>3</td>
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<tr>
<td>TA 406</td>
<td>Children's Theatre</td>
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<tr>
<td>TA 422</td>
<td>Stage Lighting</td>
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<tr>
<td>TA 424</td>
<td>Advanced Technical Theatre</td>
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And a minimum of 2 units from the following: 2

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>TAP 310</td>
<td>Modern Technical Production I</td>
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<tr>
<td>TAP 311</td>
<td>Modern Technical Production II</td>
<td>1-3</td>
</tr>
<tr>
<td>TAP 312</td>
<td>Modern Technical Production III</td>
<td>1-3</td>
</tr>
<tr>
<td>TAP 313</td>
<td>Modern Technical Production IV</td>
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</tr>
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<td>TAP 330</td>
<td>Classical Technical Production I</td>
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</tr>
<tr>
<td>TAP 331</td>
<td>Classical Technical Production II</td>
<td>1-3</td>
</tr>
<tr>
<td>TAP 332</td>
<td>Classical Technical Production III</td>
<td>1-3</td>
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<tr>
<td>TAP 333</td>
<td>Classical Technical Production IV</td>
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</tr>
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<td>TAP 350</td>
<td>Musical Technical Production I</td>
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</tr>
<tr>
<td>TAP 351</td>
<td>Musical Technical Production II</td>
<td>1-3</td>
</tr>
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<td>TAP 352</td>
<td>Musical Technical Production III</td>
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<td>TAP 353</td>
<td>Musical Technical Production IV</td>
<td>1-3</td>
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<tr>
<td>TAP 370</td>
<td>Children's Theatre Technical Production I</td>
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</tr>
<tr>
<td>TAP 371</td>
<td>Children's Theatre Technical Production II</td>
<td>1-3</td>
</tr>
<tr>
<td>TAP 372</td>
<td>Children's Theatre Technical Production III</td>
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<td>TAP 373</td>
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<td>Repertory and Touring Technical Production I</td>
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<td>TAP 391</td>
<td>Repertory and Touring Technical Production II</td>
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<tr>
<td>TAP 392</td>
<td>Repertory and Touring Technical Production III</td>
<td>1-3</td>
</tr>
<tr>
<td>TAP 393</td>
<td>Repertory and Touring Technical Production IV</td>
<td>1-3</td>
</tr>
</tbody>
</table>

And a minimum of 6 units from the following: 6

Any TA or TAP courses not used to fulfill other requirements for the major.

Not used to fulfill other requirements for the major.

Associate Degree Requirements:

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

Theatre Arts A.A. for Transfer Degree
Major Code, CSU GE: 011238A01
Major Code, IGETC: 011238A02

This degree is designed to facilitate successful transfer to baccalaureate theatre or drama degree programs. This degree provides students with the lower division breadth and depth of the field of theatre arts and exposes students to the core principles and practices in the field. It will cover the basics of acting, theatre technology and production, and the historical and modern development of theatre and dramatic literature in the world of entertainment.

The A.A.-T degree in Theatre may be obtained by the completion of 60 transferable units with a minimum of 2.0 GPA, including (a) the major area described in the Required Program below (earning a C or better in these courses), and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education - Breadth Requirements.

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.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 300</td>
<td>Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>or TA 302</td>
<td>History and Theory of the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 305</td>
<td>Theory and Techniques of Acting I</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II</td>
<td>3</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>TA 422</td>
<td>Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction</td>
<td>3</td>
</tr>
<tr>
<td>A maximum of 3 units not already used toward this degree from TAP (Theatre Arts Production) courses TAP 300, 301, 302, 303, 310, 311, 312, 313, 320, 321, 322, 323, 330, 331, 332, 333, 340, 341, 342, 343, 350, 351, 352, 353, 360, 361, 362, 363, 370, 371, 372, 373, 380, 381, 382, 383, 390, 391, 392, 393</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Associate in Arts for Transfer Degree Requirements:
The Associate in Arts in Theatre Arts for Transfer (AA-T) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Film Degree

Major Code: 011489A01
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.

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.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAFILM 300</td>
<td>Introduction to Film</td>
<td>3</td>
</tr>
<tr>
<td>TAFILM 307</td>
<td>Diversity in American Film</td>
<td>3</td>
</tr>
<tr>
<td>TAFILM 320</td>
<td>Cinema Genres</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 6 units from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAFILM 302</td>
<td>History of Film</td>
<td>3</td>
</tr>
<tr>
<td>TAFILM 303</td>
<td>History of Film: 1980’s through 1990’s</td>
<td>3</td>
</tr>
<tr>
<td>TAFILM 304</td>
<td>History of Film: 1950’s to Present</td>
<td>3</td>
</tr>
<tr>
<td>TAFILM 321</td>
<td>History of Film: 1940’s to 1950’s</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 12 units from the following:
- ART 420 Film Making (3)
- ARNM 332 Digital Video (3)
- ARNM 373 Storyboarding (3)
- ARNM 405 Digital 2D Animation (3)
- ARNM 420 Introduction to 3D Modelling (3)
- ARNM 431 3D 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 (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)

Associate Degree Requirements: The Film Associate in Arts (AA) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Acting Certificate

Major Code: 011485C01
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. The curriculum is designed to introduce and develop the craft of acting through transferable courses.

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
• 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 Opportunities

A person with an acting certificate may go into acting, directing, film, teaching, and many other careers where oration and presentation are key components.

See losrios.edu/gainful-emp-info/gedt.php?major=011485C01 for Gainful Employment Disclosure.

Requirements for Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I</td>
<td>3</td>
</tr>
<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II</td>
<td>3</td>
</tr>
<tr>
<td>TA 370</td>
<td>Theatre Movement</td>
<td>2</td>
</tr>
<tr>
<td>TA 375</td>
<td>Voice, Diction and Dialects</td>
<td>3</td>
</tr>
</tbody>
</table>

(continued on next page)
(Acting Certificate continued)

And 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)

And a minimum of 1 units 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)

And a minimum of 3 units from the following: ......................................... 3

Any TA or TAP course not used to fulfill other requirements of the major.

Children's Theatre Certificate
Major Code: 011486C01

This certificate provides the knowledge needed to create theatrical productions for children. Coursework includes acting, improvisation, voice, technical theatre, and theatre productions for children.

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 Opportunities
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.

Requirements for Certificate 15 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I</td>
</tr>
<tr>
<td>And a minimum of 4 units from the following:</td>
<td></td>
</tr>
<tr>
<td>ENGL 370</td>
<td>Children and Literature</td>
</tr>
<tr>
<td>TA 344</td>
<td>Improvisation and Theatre Games (2)</td>
</tr>
<tr>
<td>TA 370</td>
<td>Theatre Movement (2)</td>
</tr>
<tr>
<td>TA 400</td>
<td>Creative Drama for Children (3)</td>
</tr>
<tr>
<td>TA 404</td>
<td>Techniques of Puppetry (3)</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td></td>
</tr>
<tr>
<td>TA 404</td>
<td>Techniques of Puppetry</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft (3)</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction (3)</td>
</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-up I (3)</td>
</tr>
</tbody>
</table>

Costuming Certificate
Major Code: 011487C01

This certificate provides training in the skills needed to create theatrical costumes. Coursework includes costume construction, history of costume, patterning, and makeup.

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, dyeing, and painting costumes.

Career Opportunities
A person with a costuming certificate may work creating and maintaining costumes for theatre, film, TV, advertising, and other entertainment fields.

Requirements for Certificate 17.5 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASHN 374</td>
<td>Pattern Making and Design</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction</td>
</tr>
<tr>
<td>TA 435</td>
<td>History and Theory of Costuming</td>
</tr>
<tr>
<td>or FASHN 330</td>
<td>History of Western World Fashion</td>
</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-up I</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
<td></td>
</tr>
<tr>
<td>FASHN 320</td>
<td>Textiles</td>
</tr>
<tr>
<td>FASH 342</td>
<td>Fashion Illustration</td>
</tr>
<tr>
<td>FASHN 378</td>
<td>Advanced Pattern Making and Design</td>
</tr>
<tr>
<td>TA 404</td>
<td>Techniques of Puppetry</td>
</tr>
<tr>
<td>A minimum of 0.5 units from the following:</td>
<td>0.5</td>
</tr>
<tr>
<td>FASHN 334</td>
<td>Vintage Costuming (0.5 - 2)</td>
</tr>
<tr>
<td>TA 434</td>
<td>Vintage Costuming (0.5 - 2)</td>
</tr>
<tr>
<td>A minimum of 1 unit from the following:</td>
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<tr>
<td>TA 433</td>
<td>Costume Production (0.5 - 3)</td>
</tr>
<tr>
<td>A minimum of 1 unit from the following:</td>
<td></td>
</tr>
<tr>
<td>TAP 310</td>
<td>Modern Technical Production I (1 - 3)</td>
</tr>
<tr>
<td>TAP 330</td>
<td>Classical Technical Production I (1 - 3)</td>
</tr>
<tr>
<td>TAP 350</td>
<td>Musical Technical Production I (1 - 3)</td>
</tr>
<tr>
<td>TAP 370</td>
<td>Children's Theatre Technical Production I (1 - 3)</td>
</tr>
</tbody>
</table>

See losrios.edu/gainful-emp-info/gedt.php?major=011487C01 for Gainful Employment Disclosure.
THEATRE ARTS

Film Certificate
Major Code: 011488C01

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.

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 Opportunities

People may go into the field of film or TV as actors, directors, producers, critics, and technicians.

Requirements for Certificate 17 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAFILM 300</td>
<td>Introduction to Film</td>
<td>3</td>
</tr>
<tr>
<td>TAFILM 307</td>
<td>Diversity in American Film</td>
<td>3</td>
</tr>
<tr>
<td>TAFILM 302</td>
<td>History of Film: 1880’s through 1950’s (3)</td>
<td></td>
</tr>
<tr>
<td>TAFILM 303</td>
<td>History of Film: 1950’s to Present</td>
<td>3</td>
</tr>
<tr>
<td>ART 420</td>
<td>Film Making</td>
<td>2</td>
</tr>
<tr>
<td>ARNTM 332</td>
<td>Digital Video</td>
<td>3</td>
</tr>
<tr>
<td>ARNTM 405</td>
<td>Digital 2D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ENGCW 441</td>
<td>Feature Film Screenwriting Workshop I (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 403</td>
<td>Film Adaptations</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 334</td>
<td>Introduction to Musical Instrument Digital Interface (MIDI) (2)</td>
<td></td>
</tr>
<tr>
<td>MUSM 342</td>
<td>Recording Studio Techniques I (3)</td>
<td>3</td>
</tr>
<tr>
<td>TAFILM 320</td>
<td>Cinema Genres (3)</td>
<td></td>
</tr>
<tr>
<td>TA 356</td>
<td>Acting for the Camera I (3)</td>
<td></td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagcraft</td>
<td>3</td>
</tr>
<tr>
<td>TA 422</td>
<td>Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction</td>
<td>3</td>
</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-up I (3)</td>
<td></td>
</tr>
</tbody>
</table>

DEPARTMENT 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.

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 Opportunities

Students 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.

Requirements for Certificate 15 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I</td>
<td>3</td>
</tr>
<tr>
<td>TA 370</td>
<td>Theatre Movement</td>
<td>2</td>
</tr>
<tr>
<td>TA 377</td>
<td>Musical Theatre Techniques</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 2 units from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUP 310</td>
<td>Voice Class I (2)</td>
<td></td>
</tr>
<tr>
<td>MUP 390</td>
<td>Jazz and Popular Vocal Styles and Improvisation I (2)</td>
<td></td>
</tr>
<tr>
<td>MUP 350</td>
<td>Concert Choir I (2)</td>
<td></td>
</tr>
<tr>
<td>MUP 360</td>
<td>Chamber Singers (2)</td>
<td></td>
</tr>
<tr>
<td>MUP 400</td>
<td>Vocal Jazz Ensemble (2)</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 4 units from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DANCE 310</td>
<td>Jazz Dance I (1)</td>
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<tr>
<td>DANCE 320</td>
<td>Ballet I (1)</td>
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<tr>
<td>DANCE 340</td>
<td>Ballroom Dance (1)</td>
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</tr>
<tr>
<td>DANCE 360</td>
<td>Tap Dance I (1)</td>
<td></td>
</tr>
<tr>
<td>DANCE 377</td>
<td>Musical Theatre Dance I (2)</td>
<td></td>
</tr>
<tr>
<td>MUFHL 321</td>
<td>Basic Musicianship (3)</td>
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<tr>
<td>MUIVI 310</td>
<td>Voice Class I (2)</td>
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</tr>
<tr>
<td>MUIVI 311</td>
<td>Voice Class II (2)</td>
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<tr>
<td>MUIVI 320</td>
<td>Voice Class III (2)</td>
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<tr>
<td>MUIVI 340</td>
<td>Beginning Piano (2)</td>
<td></td>
</tr>
<tr>
<td>MUIVI 390</td>
<td>Jazz and Popular Vocal Styles and Improvisation I (2)</td>
<td></td>
</tr>
<tr>
<td>MUIVI 391</td>
<td>Jazz and Popular Vocal Styles and Improvisation II (2)</td>
<td></td>
</tr>
<tr>
<td>MUP 350</td>
<td>Concert Choir I (2)</td>
<td></td>
</tr>
<tr>
<td>MUP 360</td>
<td>Chamber Singers (2)</td>
<td></td>
</tr>
<tr>
<td>MUP 400</td>
<td>Vocal Jazz Ensemble (2)</td>
<td></td>
</tr>
<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II (3)</td>
<td></td>
</tr>
<tr>
<td>TA 362</td>
<td>Styles of Acting: Classical (3)</td>
<td></td>
</tr>
<tr>
<td>TA 366</td>
<td>Styles of Acting: Modern (3)</td>
<td></td>
</tr>
<tr>
<td>TA 375</td>
<td>Voice, Diction and Dialects (3)</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 1 units from the following:</td>
<td></td>
<td></td>
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<tr>
<td>TA 466</td>
<td>Rehearsal and Performance - Musical Ensemble (0.5 - 3)</td>
<td></td>
</tr>
<tr>
<td>or MUP 370</td>
<td>Rehearsal and Performance - Musical Ensemble (0.5 - 3)</td>
<td></td>
</tr>
<tr>
<td>TAP 340</td>
<td>Musical Rehearsal and Performance I (1 - 3)</td>
<td></td>
</tr>
<tr>
<td>TAP 380</td>
<td>Repertory/Touring Rehearsal and Performance I (1 - 3)</td>
<td></td>
</tr>
</tbody>
</table>

1Not used to fulfill other requirements of the major.

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.

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 Opportunities
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.

See losrios.edu/gainful-emp-info/gedt.php?major=011491C01 for Gainful Employment Disclosure.

Requirements for Certificate 16 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 420</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>TA 422</td>
<td>Stage Lighting</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 5 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 300</td>
<td>Drawing and Composition I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 420</td>
<td>Film Making (2)</td>
<td></td>
</tr>
<tr>
<td>ARTNM 302</td>
<td>Digital Basics for Art New Media (1.5)</td>
<td></td>
</tr>
<tr>
<td>ARTNM 328</td>
<td>Beginning Digital Photo Imagery (3)</td>
<td></td>
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<tr>
<td>ARTNM 332</td>
<td>Digital Video (3)</td>
<td></td>
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<tr>
<td>DESGN 100</td>
<td>Introduction to Computer Aided Drafting and Design (CADD) (3)</td>
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</tr>
<tr>
<td>IDES 340</td>
<td>Beginning CADD for Interior Design (3)</td>
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<tr>
<td>MUSM 140</td>
<td>Concert Sound Reinforcement (2)</td>
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<tr>
<td>MUSM 334</td>
<td>Introduction to Musical Instrument Digital Interface (MIDI) (2)</td>
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<tr>
<td>MUSM 342</td>
<td>Recording Studio Techniques I (3)</td>
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<tr>
<td>MUSM 344</td>
<td>Recording Studio Techniques II (3)</td>
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<td>MUSM 356</td>
<td>Pro Tools 101, Introduction to Pro Tools (1.5)</td>
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<td>TA 404</td>
<td>Techniques of Puppetry (3)</td>
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<td>TA 424</td>
<td>Advanced Technical Theatre (3)</td>
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<td>TA 430</td>
<td>Costume Construction (3)</td>
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<td>TA 433</td>
<td>Costume Production (0.5 - 3)</td>
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<td>TA 437</td>
<td>Stage Make-up I (3)</td>
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<td>TA 440</td>
<td>Arts Management (3)</td>
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<td>WELD 300</td>
<td>Introduction to Welding (3)</td>
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And a minimum of 2 units from the following:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>TA 466</td>
<td>Rehearsal and Performance - Musical Ensemble (0.5 - 3)</td>
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<td>or MUP 370</td>
<td>Rehearsal and Performance - Musical Ensemble (0.5 - 3)</td>
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<tr>
<td>TAP 310</td>
<td>Modern Technical Production I (1 - 3)</td>
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<td>TAP 311</td>
<td>Modern Technical Production II (1 - 3)</td>
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<td>TAP 330</td>
<td>Classical Technical Production I (1 - 3)</td>
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<td>TAP 350</td>
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<td>TAP 351</td>
<td>Musical Technical Production II (1 - 3)</td>
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<td>TAP 370</td>
<td>Children’s Theatre Technical Production I (1 - 3)</td>
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<td>TAP 371</td>
<td>Children’s Theatre Technical Production II (1 - 3)</td>
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<tr>
<td>TAP 390</td>
<td>Repertory and Touring Technical Production I (1 - 3)</td>
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<tr>
<td>TAP 391</td>
<td>Repertory and Touring Technical Production II (1 - 3)</td>
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Any TA or TAP class not used to fulfill other requirements.
TA 350 Theory and Techniques of Acting I 3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 and ESLW 340.  
General Education: AAAS Area I; CSU Area C1; IGETC Area 3A  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. (C-ID THTR 151)

TA 351 Theory and Techniques of Acting II 3 Units  
Prerequisite: TA 350 with a grade of "C" or better  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. (C-ID THTR 152)

TA 356 Acting for the Camera I 3 Units  
Prerequisite: TA 350 with a grade of "C" or better  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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 3 Units  
Prerequisite: TA 356 with a grade of "C" or better  
Advisory: Eligible for ENGRD 310 OR ENGRD 312 AND ENGWR 300; or ESLR 340 AND ESLW 340.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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 3 Units  
Prerequisite: TA 350 with a grade of "C" or better  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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 3 Units  
Prerequisite: TA 350 with a grade of "C" or better  
Advisory: TA 300 and 351  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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 2 Units  
Course Transferable to UC/CSU  
Hours: 18 hours LEC; 54 hours LAB  
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 3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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 3 Units  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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 3 Units  
Prerequisite: TA 350 with a grade of "C" or better  
Advisory: TA 300, 351, and 420; and eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
General Education: CSU Area C1  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
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 3 Units  
Prerequisite: ENGWR 101 with a grade of "C" or better; or placement through the assessment process.  
Advisory: ENGWR 300  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is an introduction to the fundamentals of the craft of dramatic writing. Elements of plot construction and character development are emphasized through writing exercises, superior models of drama, and drafting and revision of an original play script. Attending an out-of-class live drama performance is required.
TA 400 Creative Drama for Children 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
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 3 Units
Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320.
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
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 3 Units
Enrollment Limitation: Audition/Interview
General Education: AA/AS Area I; CSU Area C1
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course explores children's literature in performance through dramatic presentation 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 3 Units
Advisory: MATH 25 OR MATH 41 with a grade of “C” or better or placement through assessment process; AND TA 300; AND eligible for ENGRD 116 AND ENGWR 102; OR ESLR 320 AND ESLW 320; AND Course Transferable to UC/CSU
Hours: 36 hours LEC, 72 hours LAB
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. (C-ID THTR 171)

TA 422 Stage Lighting 3 Units
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.
Course Transferable to UC/CSU
Hours: 36 hours LEC, 72 hours LAB
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. (C-ID THTR 173)

TA 424 Advanced Technical Theatre 3 Units
Prerequisite: TA 420 and 422 with grades of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC, 72 hours LAB
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 3 Units
Advisory: Eligible for ENGRD 116 AND ENGWR 102; OR ESLR 320 AND ESLW 320.
Course Transferable to UC/CSU
Hours: 36 hours LEC, 54 hours LAB
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. (C-ID THTR 174)

TA 433 Costume Production .5-3 Units
Prerequisite: FASHN 374 or TA 430 with a grade of “C” or better
Advisory: Eligible for ENGRD 116 AND ENGWR 102; OR ESLR 320 AND ESLW 320
Course Transferable to CSU
Hours: 27-162 hours LAB
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 .5-2 Units
Same As: FASHN 334
Advisory: FASHN 357 or TA 430, and eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to UC/CSU
Hours: 4.5-18 hours LEC; 13.5-54 hours LAB
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 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is a survey course of 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 3 Units
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 corrective, old age, historical, stylized faces, clowns, animals, and fantasy makeup. (C-ID THTR 175)

TA 440 Arts Management 3 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Enrollment Limitation: Audition/Interview
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 .5-3 Units
Course Family: Musical Performance and Technical Production (see page 38 - limitation on active participatory courses)
Same As: MUP 370
Enrollment Limitation: Audition/Interview
Course Transferable to UC/CSU
Hours: 27-162 hours LAB
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 495 Independent Studies in Theatre Arts 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54-162 hours LAB
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 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to theatre arts with a cooperating site supervisor. Students are advised to consult with the Theatre Arts Department faculty to review specific certificate and degree work experience requirements.
General Education: AAIAS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
**Theatre Arts Film**

**TAFILM 300 Introduction to Film**  
3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. Field trips may be required. This course is formerly known as TA 310.

**TAFILM 302 History of Film**  
3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is an historical and critical survey of film as an art form. It examines the evolution 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**  
3 Units  
Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320.  
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is an historical and critical survey of film as an art form. It examines the evolution of films which are landmarks in the art of moviemaking from the 1880s through the 1950s. Field trips may be required. This course is formerly known as TA 314.

**TAFILM 304 History of Film: 1950's to Present**  
3 Units  
Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320.  
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is an historical and critical survey of film as an art form. It examines the evolution of films which are landmarks in the art of moviemaking from the 1950s to the present. Field trips may be required. This course is formerly known as TA 315.

**TAFILM 307 Diversity in American Film**  
3 Units  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course 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, bi-sexuals, and transgenders. Media stereotypes and the social, political, and cultural climates that created them are covered. Field trips may be required. This course is formerly known as TA 318.

**Theatre Arts Performance**

**TAP 300 Modern Rehearsal and Performance I**  
1-3 Units  
Course Family: Modern Performance and Technical Production (see page 38 - limitation on active participatory courses)  
Advisory: TA 350  
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.  
Course Transferable to UC/CSU  
Hours: 54-162 hours LAB  
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. (C-ID THTR 191)

**TAP 301 Modern Rehearsal and Performance II**  
1-3 Units  
Course Family: Modern Performance and Technical Production (see page 38 - limitation on active participatory courses)  
Prerequisite: TAP 300 with a grade of "C" or better  
Advisory: TA 366  
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.  
Course Transferable to UC/CSU  
Hours: 54-162 hours LAB  
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. (C-ID THTR 191)
TAP 302 Modern Rehearsal and Performance III 1-3 Units
Course Family: Modern Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 301 with a grade of "C" or better
Advisory: TA 366
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 191)

TAP 303 Modern Rehearsal and Performance IV 1-3 Units
Course Family: Modern Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 302 with a grade of "C" or better
Advisory: TA 366
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 191)

TAP 310 Modern Technical Production I 1-3 Units
Course Family: Modern Performance and Technical Production (see page 38 - limitation on active participatory courses)
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 192)

TAP 311 Modern Technical Production II 1-3 Units
Course Family: Modern Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 310 with a grade of "C" or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 192)

TAP 312 Modern Technical Production III 1-3 Units
Course Family: Modern Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 311 with a grade of "C" or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 192)

TAP 313 Modern Technical Production IV 1-3 Units
Course Family: Modern Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 312 with a grade of "C" or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 192)
TAP 320 Classical Rehearsal and Performance I 1-3 Units
Course Family: Classical Performance and Technical Production (see page 38 - limitation on active participatory courses)
Advisory: TA 350
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 191)

TAP 321 Classical Rehearsal and Performance II 1-3 Units
Course Family: Classical Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 320 with a grade of "C" or better
Advisory: TA 362
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 191)

TAP 322 Classical Rehearsal and Performance III 1-3 Units
Course Family: Classical Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 321 with a grade of "C" or better
Advisory: TA 362
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 191)

TAP 323 Classical Rehearsal and Performance IV 1-3 Units
Course Family: Classical Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 322 with a grade of "C" or better
Advisory: TA 362
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 191)

TAP 330 Classical Technical Production I 1-3 Units
Course Family: Classical Performance and Technical Production (see page 38 - limitation on active participatory courses)
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 192)

TAP 331 Classical Technical Production II 1-3 Units
Course Family: Classical Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 330 with a grade of "C" or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 192)
TAP 332 Classical Technical Production III 1-3 Units
Course Family: Classical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Prerequisite: TAP 331 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 192)

TAP 333 Classical Technical Production IV 1-3 Units
Course Family: Classical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Prerequisite: TAP 332 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 192)

TAP 340 Musical Rehearsal and Performance I 1-3 Units
Course Family: Musical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Advisory: TA 350
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 191)

TAP 341 Musical Rehearsal and Performance II 1-3 Units
Course Family: Musical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Prerequisite: TAP 340 with a grade of “C” or better
Advisory: TA 377
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 191)

TAP 342 Musical Rehearsal and Performance III 1-3 Units
Course Family: Musical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Prerequisite: TAP 341 with a grade of “C” or better
Advisory: TA 370 and 377
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 191)

TAP 343 Musical Rehearsal and Performance IV 1-3 Units
Course Family: Musical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Prerequisite: TAP 342 with a grade of “C” or better
Advisory: TA 370 and 377
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 191)
TAP 350  Musical Technical Production I  1-3 Units
Course Family: Musical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 192)

TAP 351  Musical Technical Production II  1-3 Units
Course Family: Musical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Prerequisite: TAP 350 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 192)

TAP 352  Musical Technical Production III  1-3 Units
Course Family: Musical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Prerequisite: TAP 351 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 192)

TAP 353  Musical Technical Production IV  1-3 Units
Course Family: Musical Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Prerequisite: TAP 352 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 192)

TAP 360  Children's Theatre Rehearsal and Performance I  1-3 Units
Course Family: Children's Theatre Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Advisory: TA 350
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 191)

TAP 361  Children's Theatre Rehearsal and Performance II  1-3 Units
Course Family: Children's Theatre Performance and Technical Production
(see page 38 - limitation on active participatory courses)
Prerequisite: TAP 360 with a grade of “C” or better
Advisory: TA 350
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 191)
TAP 362 Children’s Theatre Rehearsal
and Performance III 1-3 Units
Course Family: Children’s Theatre Performance and Technical
Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 361 with a grade of “C” or better
Advisory: TA 350
Enrollment Limitation: Students must auditions and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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 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. (C-ID THTR 191)

TAP 363 Children’s Theatre Rehearsal
and Performance IV 1-3 Units
Course Family: Children’s Theatre Performance and Technical
Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 362 with a grade of “C” or better
Advisory: TA 350
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 191)

TAP 370 Children’s Theatre
Technical Production I 1-3 Units
Course Family: Children’s Theatre Performance and Technical
Production (see page 38 - limitation on active participatory courses)
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 192)

TAP 371 Children’s Theatre
Technical Production II 1-3 Units
Course Family: Children’s Theatre Performance and Technical
Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 370 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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 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. (C-ID THTR 192)

TAP 372 Children’s Theatre
Technical Production III 1-3 Units
Course Family: Children’s Theatre Performance and Technical
Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 371 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 192)

TAP 373 Children’s Theatre
Technical Production IV 1-3 Units
Course Family: Children’s Theatre Performance and Technical
Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 372 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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. (C-ID THTR 192)
TAP 380 Repertory/Touring Rehearsal and Performance I 1-3 Units
Course Family: Repertory/Touring Performance and Technical Production (see page 38 - limitation on active participatory courses)
Advisory: TA 350
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 191)

TAP 381 Repertory/Touring Rehearsal and Performance II 1-3 Units
Course Family: Repertory/Touring Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 380 with a grade of "C" or better
Advisory: TA 350
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 191)

TAP 382 Repertory/Touring Rehearsal and Performance III 1-3 Units
Course Family: Repertory/Touring Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 381 with a grade of "C" or better
Advisory: TA 350
Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 191)

TAP 390 Repertory and Touring Technical Production I 1-3 Units
Course Family: Repertory/Touring Performance and Technical Production (see page 38 - limitation on active participatory courses)
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 192)

TAP 391 Repertory and Touring Technical Production II 1-3 Units
Course Family: Repertory/Touring Performance and Technical Production (see page 38 - limitation on active participatory courses)
Prerequisite: TAP 390 with a grade of "C" or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 54-162 hours LAB
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.
(C-ID THTR 192)
**TAP 392 Repertory and Touring**  
**Technical Production III**  
1-3 Units

Course Family: Repertory/Touring Performance and Technical Production (see page 38 - limitation on active participatory courses)

Prerequisite: TAP 391 with a grade of "C" or better

Enrollment Limitation: Interview

Course Transferable to UC/CSU

Hours: 54-162 hours LAB

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. (C-ID THTR 192)

**TAP 393 Repertory and Touring**  
**Technical Production IV**  
1-3 Units

Course Family: Repertory/Touring Performance and Technical Production (see page 38 - limitation on active participatory courses)

Prerequisite: TAP 392 with a grade of "C" or better

Enrollment Limitation: Interview

Course Transferable to UC/CSU

Hours: 54-162 hours LAB

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. (C-ID THTR 192)
DEGREES AND CERTIFICATES

Welding Technology Degree
Major Code: 011245A01
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.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• select the correct electrode classification and parameters for various thickness of material and welding positions on ferrous and nonferrous metals.
• define principles of gas metal arc welding.
• interpret GMA electrode and classification and specification.
• describe gas metal arc (GMA) welding operations of various joint designs using selected electrodes on different positions.
• describe shielded metal arc welding 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 gas tungsten arc (GTA) welding principles and safe welding practices.
• define GTA applications and limitations.
• explain the reason for the formation of each discontinuity type, and distinguish 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 Opportunities
Graduating students may find welding positions in oil refineries, nuclear power plants, aerospace, structural buildings, bridge construction, auto industry, and small commercial fabricating shops.

WELDING TECHNOLOGY

Requirements for Degree

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<tr>
<th>Requirements for Degree</th>
<th>34 Units</th>
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<tbody>
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<td>WELD 140 Mathematics for Welding Technicians</td>
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<tr>
<td>WELD 300 Introduction to Welding</td>
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<td>WELD 302 Introduction to Welding Metallurgy</td>
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<td>WELD 316 Welding Inspection</td>
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<td>WELD 320 Shielded Metal Arc Welding – Structural</td>
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<td>WELD 322 Shielded Metal Arc Welding (Pipe)</td>
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<td>WELD 330 Gas Tungsten Arc Welding (Plate)</td>
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<td>WELD 332 Gas Tungsten Arc Welding (Pipe)</td>
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<td>WELD 333 Gas Metal Arc Welding, Semi-Automatic Processes</td>
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<td>WELD 334 Gas Metal Arc Welding; Ferrous and Non-Ferrous Metals</td>
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<td>WELD 335 Flux Core Arc Welding</td>
<td>3</td>
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<tr>
<td>WELD 342 Symbol Reading, Layout and Fabrication</td>
<td>3</td>
</tr>
</tbody>
</table>

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

Welding Technology Certificate
Major Code: 011245C02
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.

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 Opportunities
Graduates may find employment in a number of industries including: pipe line construction, oil refining, aerospace, structural building, bridge construction, automotive, and small commercial fabricating. They may also work as welding shop supervisors and welding sales persons, and they can also become welding shop owners.

Welding Metallurgy and Inspection (270 hours) Certificate
Major Code: 011543CO1
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.

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

Requirements for Certificate 34 Units
WELD 140 Mathematics for Welding Technicians .............................................. 3
WELD 300 Introduction to Welding................................................................. 3
WELD 302 Introduction to Welding Metallurgy .............................................. 3
WELD 316 Welding Inspection................................................................. 3
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, Semi-Automatic Processes .......... 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

DEPARTMENT CERTIFICATES

Gas Metal Arc, 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.

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

Requirements for Certificate 11 Units
WELD 300 Introduction to Welding.......................................................... 3
WELD 333 Gas Metal Arc Welding, Semi-Automatic Processes .......... 3
WELD 334 Gas Metal Arc Welding: Ferrous and Non-Ferrous Metals .... 2
WELD 335 Flux Core Arc Welding .......................................................... 3

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.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• identify GTA principles and safe practices.
• define GTA applications and limitations.
• weld mild steel, stainless steel, and aluminum alloys using GTA 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 applications methods of GTA process.

Requirements for Certificate 9 Units
WELD 300 Introduction to Welding.......................................................... 3
WELD 330 Gas Tungsten Arc Welding (Plate) ............................................. 3
WELD 332 Gas Tungsten Arc Welding (Pipe) ............................................. 3
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.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• interpret electrode classification and specifications
• select correct amperage setting for the job application
• define principles of arc welding

Career Opportunities
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.

Requirements for Certificate 9 Units
WELD 140 Mathematics for Welding Technicians ........................................... 3
WELD 322 Shielded Metal Arc Welding (Pipe) ................................................. 3
WELD 332 Gas Tungsten Arc Welding (Pipe) .................................................... 3

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.

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

Requirements for Certificate 9 Units
WELD 300 Introduction to Welding ................................................................. 3
WELD 320 Shielded Metal Arc Welding – Structural .......................................... 3
WELD 322 Shielded Metal Arc Welding (Pipe) .................................................... 3

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.

Student Learning Outcomes
Upon completion of this program, the student will be able to:
• interpret algebraic expressions by substituting given numbers for letter values
• solve formulas by substituting numbers for letters, analyzing word statements and diagram values
• compute the area, radius, and diameter of a circle
• compute 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

Requirements for Certificate 12 Units
WELD 107 Welding Equipment Maintenance .................................................... 3
WELD 140 Mathematics for Welding Technicians ............................................ 3
WELD 300 Introduction to Welding ................................................................. 3
WELD 342 Symbol Reading, Layout and Fabrication .......................................... 3

WELDING TECHNOLOGY

WELD 105 Introduction to Metal Sculpture 1.5 Units
Hours: 18 hours LEC, 27 hours LAB
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 3 Units
Hours: 36 hours LEC, 54 hours LAB
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 2 Units
Prerequisite: WELD 300 with a “C” grade or better, or a minimum of one year of welding experience.
Hours: 18 hours LEC, 54 hours LAB
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 3 Units
Hours: 45 hours LEC, 27 hours LAB
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 3 Units
Prerequisite: WELD 117 with a “C” or better, or evidence of completion of UT Level I certification.
Hours: 45 hours LEC; 27 hours LAB
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 3 Units
General Education: AA/AS Area II(b)
Hours: 54 hours LEC
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 2 Units
Same As: AT 107 and ET 250
Advisory: ENGRD 310 or 312, and ENGRD 316 with a grade of “C” or better; OR ESLR 320, ESLL 320, and ESLW 320 with a grade of “C” or better.
General Education: AA/AS Area III(b)
Hours: 36 hours LEC
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 ET 250.

WELD 155 Industry Training 3 Units
Hours: 36 hours LEC; 54 hours LAB
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 298 Work Experience in Welding 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the welding field with a cooperating site supervisor. Students are advised to consult with the Welding Department faculty to review specific certificate and degree work experience requirements.
General Education: AA/AS Area III(b) (effective Summer 2018)
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment or advancement 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.

WELD 300 Introduction to Welding 3 Units
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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.

WELD 302 Introduction to Welding Metallurgy 3 Units
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 2 Units
Prerequisite: WELD 300 with a grade of “C” or better; OR at least one year of welding experience.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGRW 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC
This course covers the welding requirements for any type of welded structure made from commonly used carbon and low-alloy steel construction. Topics include 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 330 Shielded Metal Arc Welding – Structural 3 Units
Prerequisite: WELD 300 with a grade of “C” or better; OR at least one year of welding experience.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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) 3 Units
Prerequisite: WELD 320 with a grade of “C” or better; OR a minimum of 2 years of welding experience.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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) 3 Units
Prerequisite: WELD 300 with a grade of “C” or better; OR at least one year of welding experience.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 to 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) 3 Units
Prerequisite: WELD 330 with a grade of “C” or better; WELD 330 with a grade of “C” or better; OR a minimum of two years of welding experience.
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 to 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, Semi-Automatic Processes 3 Units
Prerequisite: WELD 300 with a grade of “C” or better
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.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers semi-automatic wire feed welding with micro wires on steel plate of varying thickness. Joint design, gas variations and all welding positions are also covered. The emphasis of this course is on code welding on low, medium, and high carbon steels. The course content is relevant to code welding in accordance to the American Welding Society (AWS), Structural welding code D1.1 and Sheet Steel Code D1.3. Also covered are welding power supplies, types of meta 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 334 Gas Metal Arc Welding: Ferrous and Non-Ferrous Metals 2 Units
Prerequisite: WELD 133 with a grade of “C” or better
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.
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers semiautomatic wire feed welding using micro wires on aluminum and stainless steel plate 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 to 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 3 Units
Prerequisite: WELD 300 with a grade of “C” or better, or a minimum of one year of welding experience.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 3 Units
Corequisite: WELD 300
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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.
Cooperative 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.

**Student Learning Outcomes**

**Upon completion of WEXP 198, the student will be able to:**

- demonstrate competencies for effective and competitive workforce performance as written in the minimum three (3) learning objectives created by the student and his/her employer or work site supervisor at the start of the course.
- make effective decisions, use workforce information, and manage his/her personal career plans.
- behave professionally, ethically, and legally at work, consistent with applicable laws, regulations, and organizational norms.
- behave responsibly at work, exhibiting initiative and self-management in situations where it is needed.
- apply effective leadership styles at work, with consideration to group dynamics, team and individual decision making, and workforce diversity.
- communicate in oral, written, and multimedia formats in a variety of contexts at work.
- locate, organize, evaluate, and reference information at work.
- demonstrate originality and inventiveness at work by combining ideas or information in new ways, making connections between seemingly unrelated ideas, and reshaping goals in ways that reveal new possibilities using critical and creative thinking skills such as logical reasoning, analytical thinking, and problem-solving.

**Upon completion of WEXP 298, the student will be able to:**

- demonstrate originality and inventiveness at work by combining ideas or information in new ways, making connections between seemingly unrelated ideas, and reshaping goals in ways that reveal new possibilities using critical and creative thinking skills such as logical reasoning, analytical thinking, and problem-solving.
- demonstrate application of industry knowledge and theoretical concepts in a field of study related to a transfer degree level career as written in the minimum three (3) learning objectives created by the student and his/her employer or work site supervisor at the start of the course.
- make effective decisions, use workforce information, and manage his/her personal career plans.
- behave professionally, ethically, and legally at work, consistent with applicable laws, regulations, and organizational norms.
- behave responsibly at work, exhibiting initiative and self-management in situations where it is needed.
- apply effective leadership styles at work, with consideration to group dynamics, team and individual decision making, and workforce diversity.
- communicate in oral, written, and multimedia formats in a variety of contexts at work.
- locate, organize, evaluate, and reference information at work.
- demonstrate originality and inventiveness at work by combining ideas or information in new ways, making connections between seemingly unrelated ideas, and reshaping goals in ways that reveal new possibilities using critical and creative thinking skills such as logical reasoning, analytical thinking, and problem-solving.

**Career Opportunities**

The Cooperative Work Experience and Internship Program (WEXP) provides opportunities that support students working to advance their career. Participating in WEXP gives students the opportunity to learn professional skills in preparation for their chosen career, acquire hands-on experience in a structured program, and develop industry contacts. WEXP gives students a “competitive edge” by providing real-world experience.

The Work Experience Program serves interns, volunteers, and employees. Positions may be paid or unpaid.

Occupational Work Experience Education 298/498 is designed for students interested in associate/certificate degree level (298) or transfer degree level (498) work experiences, related to their major field of study. Students should consult with their major program faculty to review specific certificate or degree work experience requirements. 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. Students may earn up to sixteen (16) units total across all Work Experience course offerings.
These units may count as elective units, major units, or GE units, only 498 units are transferable to CSU. Students are strongly encouraged to consult with their counselor.

General Work Experience Education 198 is designed for students interested in exploring various career options without a major. Up to three units of credit may be earned in a semester. 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. Students may earn up to sixteen (16) units total across all Work Experience course offerings. These units may count as elective units or GE units, but are not transferable. Students are strongly encouraged to consult with their counselor.

### Course Enrollment

Students must have a cooperating employer by the end of the second week of a full semester course or by the end of the first week of an eight week (or summer session) and twelve week session to remain in the course. Positions should be located within the greater Sacramento area for instructor site visits. Students needing assistance in finding an internship should go to the program website at [http://wexp.losrios.edu](http://wexp.losrios.edu). Positions may be paid or unpaid. The weekly class meeting is required for first time participants. Returning participants are not required to attend the weekly class meeting but are required to meet with the instructor as needed as well as attend the first class meeting, a mid-semester meeting, and a final meeting. Units earned are determined by the amount of hours worked from the first week of instruction to the last week of instruction during an enrollment term, and success with completing required program forms and classroom assignments (hours exclude the weekly orientation course/class time). During the enrollment term, the student is required to complete 75 hours of paid work or 60 hours of unpaid work experience for each unit. An additional 75 or 60 hours of work experience is required for each additional unit. All registered students are required to attend the first course meeting.


For more information about these courses, please see their program of study sections in the catalog.

<table>
<thead>
<tr>
<th>Work Experience</th>
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<tbody>
<tr>
<td><strong>WEXP 198 Work Experience - General</strong></td>
<td>1-3 Units</td>
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<tr>
<td><strong>Advisory:</strong> Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.</td>
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<tr>
<td><strong>Enrollment Limitation:</strong> Students must be in a paid or unpaid internship, volunteer position, or job with a cooperating site supervisor.</td>
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<tr>
<td><strong>General Education:</strong> AA/AS Area III(b)</td>
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<tr>
<td><strong>Hours:</strong> 60-225 hours LAB</td>
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<tr>
<td>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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete: 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.</td>
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<tr>
<td><strong>WEXP 298 Work Experience in (Subject)</strong></td>
<td>1-4 Units</td>
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<tr>
<td><strong>Advisory:</strong> Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.</td>
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<tr>
<td><strong>Enrollment Limitation:</strong> Students must be in a paid or unpaid internship, volunteer position, or job related to career goals with a cooperating site supervisor.</td>
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<tr>
<td><strong>General Education:</strong> AA/AS Area III(b)</td>
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<tr>
<td><strong>Hours:</strong> 60-300 hours LAB</td>
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<tr>
<td>This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in 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 the work site, and developing workplace skills and competencies. During the semester, the student is required to complete: 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.</td>
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WEXP 498 Work Experience in (Subject) 1-4 Units
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to career goals with a cooperating site supervisor.
General Education: AAAS Area III(b)
Course Transferable to CSU
Hours: 60-300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer-level degree occupational programs. Course content includes understanding the application of education to the workforce, completion of Title 5 required forms which document the student’s progress and hours spent at the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class 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.
• List of Administrators
• List of Faculty
Administration

AGUILERA LAWRENSON, LISA (2006)
Vice President, Instruction
B.A., University of Puget Sound
M.A., Western Washington University
Ph.D., Oregon State University

ARATA, RAQUEL (2016)
Dean, Career Education & Workforce Development
B.A. Santa Clara University
M.A., Syracuse University

BOOTH, DERRICK (2007)
Dean, Kinesiology & Athletics
B.S., CSU Chico
M.S., Ph.D., University of Washington

BOYD, STEVEN (2008)
Dean, Behavioral & Social Sciences
B.S., Louisiana State University
M.B.A., CSU Fresno
Ed.D., University of Southern California

BRADEN, KALE (2015)
Interim Associate Vice President, Instruction & Learning Resources
B.A., Randolph-Macon College
M.F.A., University of Hawaii
Ed.D., Argosy University

CALDowell, TRish (2013)
Dean, Technical Education
B.A., University of Washington
M.A., Ph.D., University of California, Los Angeles

COBBI, KIRSTEN (2006)
Dean, Business & Computer Science
B.S., M.A., San Francisco State University

DAVIDSON, ROGER (2016)
Dean, Natomas Education Center
B.S., Rose-Hulman Institute of Technology
M.S., Rensselaer Polytechnic Institute
Ph.D., University of Colorado, Boulder
Graduate Certificate, Stanford University

DE LAPP, JAN (1999)
Dean, Health & Education
B.A., M.A., CSU Sacramento

FUNK, CHAD (2009)
Interim Associate Vice President, Student Services
A.A., Yuba College
B.A., CSU Sacramento
M.S., University of La Verne

GEARY, PARRISH (2016)
Dean, Admissions & Transition Services
A.S., Oakwood College
B.A., CSU Sacramento
M.A., CSU Sacramento

GREENE, THOMAS (2014)
College President
B.S., Northern Illinois University
M.S., Northern Illinois University
Ph.D., University of Texas at Austin

HARTLEY, GARY (2019)
Interim Dean, Mathematics
B.A., Trinity College
M.A., Trinity Divinity School
Ed.D., ABD, Northern Illinois University

HERNDON, DOUG (2015)
Dean, English
B.A., CSU Sacramento
M.A., CSU Sacramento

HICKS, DIANA (2001)
Dean, Humanities
A.A., American River College
B.A., M.A., CSU Sacramento

JAQUES, KATHLEEN (1994)
Associate Vice President, Instruction
B.A., University of Alaska
M.A., CSU Sacramento

JOHNSON, JOSHUA MOON (2017)
Dean, Student Services, Equity Programs & Pathways
B.B.A., University of South Alabama
M.A., University of Alabama
M.A., Binghamton University, State University of NY
Ph.D., Northern Illinois University

KARP, ADAM (1999)
Dean, Planning, Research & Technology
B.A., Ph.D., UC Davis

KARU, KULDEEP (2016)
Vice President, Administrative Services
A.S., Heald Business College
B.S., University of Phoenix
MBA, National University

KOBAyASHI, HIRONOBU (FRANK) (2013)
Associate Vice President, Workforce & Economic Development
A.S., A.A., Santa Rosa Junior College
M.A., Stanford University
Ed.D., B.S., UC Davis

MILANO, ANGELA (2008)
Dean, Fine & Applied Arts
B.A., Sonoma State University
M.S., Texas A&M University

ORTIZ-MERCADO, SONIA (2017)
Dean, Counseling & Transfer Services
M.A., CSU Sacramento

OSTGAARD, KOLLEEN (2011)
Dean, Support Programs
B.A., M.A., CSU Sacramento

REITZ, NANCY (1981)
Interim Dean, Learning Resource Center and Instruction
M.S., UC Davis

RESKE, MARSHA (2001)
Dean, Virtual Education Center
A.A., Santa Rosa Junior College
B.S., State University of New York
M.A., University of London
M.S., Nova Southeastern University

ROY, RINA B. (1991)
Dean, Science and Engineering
B.S.C., University of Calcutta, India
Ph.D., University of Florida

SEGURA, STEVEN (2008)
Dean, SRPSTC/McClennan Center
A.A., Sacramento City College
B.A., Union Institute and University
M.S., Cal State Polytechnic

STEPHENSON, JEFFREY WAYNE (2003)
Vice President of Student Services
B.M.S., Cincinnati Mortuary College
M.S., Western Illinois University
Macomb
Ph.D., Capella University

Behavioral & Social Sciences

BEASLEY CISNEROS, ANNMARIE (2015)
Anthropology
B.A., CSU Sacramento
M.A., CSU Sacramento

BETHEL, PAUL (2003)
History
B.A., San Francisco State University
M.A., CSU Long Beach

BOVARD, VICTORIA (1997)
Psychology
B.A., University of Texas
M.A., UC Berkeley

CASPER-DENMAN, KRISTINA (2002)
Anthropology
B.A., Boston College
M.A., Arizona State University

CATON, RICARDO (2016)
History
B.A., University of the Pacific
M.A., UC Santa Barbara
Ph.D., UC Santa Barbara

CHAO, PAMELA HUANG (1996)
Sociology
B.A., M.A., University of Chicago

CHEN, CHIUPEI (1998)
Economics
B.A.S., UC Davis
M.A., CSU Sacramento
COLLIHAN, KATHLEEN (2001)  
**Political Science**  
B.S., Santa Clara University  
M.A., San Jose State University  
Ph.D., UC Santa Barbara

FRATELLO, NATASHA (2002)  
**Psychology**  
A.A., Ventura College  
B.A., UC Santa Barbara  
M.S., University of La Verne

**Psychology**  
B.A., Federal University of Pernambuco, Brazil  
M.S., Ph.D., University of Utah

GUSTAFSON, KARLA (2012)  
**Psychology**  
B.A., Federal University of Pernambuco, Brazil  
M.S., Ph.D., University of Utah

HASHIMA, EDWARD (1999)  
**History**  
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

KINUTHIA, F. KAMAU (2001)  
**Economics**  
B.A., Principia College, Illinois  
M.S., UC Davis

LEONHARDT, CAMILLE (2009)  
**History**  
B.A., UC Davis  
M.A., CSU Sacramento

MACHADO, GERALDINE (2016)  
**Psychology**  
B.A., CSU Stanislaus  
M.A., CSU Sacramento

McCORMICK, MARCIA (2004)  
**Psychology**  
B.S., UC Davis  
M.A. UC Santa Barbara

MITCHELL, EMILIE (2012)  
**Psychology**  
B.A., UC Riverside  
M.A., CSU Long Beach  
M.A., Ph.D., UC Davis

MOKHTARZADA, SHAHLA (1992)  
**Sociology**  
B.A., M.S., M.A., Ph.D., UC Davis

MURAKAMI, DEAN M. (1990)  
**Psychology**  
A.A., Harbor Junior College  
B.A., CSU Long Beach  
Ph.D., UC Riverside

NELSON, ELIZABETH L. (2005)  
**Psychology**  
B.A., Trinity University, San Antonio  
M.A., UC Santa Barbara  
Ph.D., Oklahoma State University, Stillwater

PADGETT, CHRISTOPHER D. (1998)  
**History**  
B.A., University of the Pacific  
M.A., Ph.D., UC Davis

PEARSON, RUDY N. (1995)  
**History**  
B.S., Fresno Pacific College  
M.S., Ph.D., Washington State University

REYNOLDS, LAURINDA (2016)  
**Gerontology**  
B.A., Paradise Valley Community College  
B.S., Northern Arizona University  
M.A., University of Northern Colorado

ROSARIO, BRIAN P. (2006)  
**Economics**  
B.S., University of the Philippines  
M.A., Ph.D., UC Davis

SACHA, JEFFREY O. (2018)  
**Sociology**  
B.A., Gonzaga University  
M.A., Ph.D., University of Southern California

SCOTT, MARGARET L. (2007)  
**Psychology**  
A.S., West Valley College  
B.S., San Jose State University  
M.A., CSU Sacramento

SHIMIZU, YUJIRO (2006)  
**Research/Psychology**  
B.A., Simon Fraser University  
M.A., Washington University

SMITH, SARA (2016)  
**History**  
B.A., UC Berkeley  
M.A., UC Santa Cruz  
Ph.D., UC Santa Cruz

STEWART, MARK A. (1992)  
**Psychology**  
B.S., Brigham Young University  
Ph.D. University of Norte Dame

SUHKARY-STOLBA, SOHEIR (1976)  
**Anthropology**  
B.A., Cairo University  
M.A., CSU Sacramento  
Ph.D., UC Davis

TABARES, TRESSA (2002)  
**Political Science**  
B.A., E. Connecticut State University  
M.A., Ph.D., UC Davis

UNMACK, CYNTHIA (2004)  
**Political Science**  
B.A., CSU Fullerton  
M.A., CSU Sacramento  
Ph.D., UC Davis

WEINER, JOSHUA J. (2005)  
**History**  
B.A., UC Santa Cruz  
M.A., Northeastern University

WILKERSO, ASHA (2017)  
**Legal Studies**  
B.A., Santa Clara University  
J.D., UC Hastings College of the Law

WORLEY, KATRINA M. (2005)  
**Anthropology**  
B.A., M.A., CSU Sacramento

---

**Business & Computer Science**

ANTOS, DAMON (2002)  
**Computer Information Science**  
B.S., Cal Poly  
M.S., Rutgers State University

AUYEUNG, TAK (2000)  
**Computer Information Science**  
M.S., Ph.D., UC Davis

BENNETT, HEIDI (2009)  
**Business**  
A.A., Cosumnes River College  
B.B.A., National University, Sacramento  
M.B.A.-M.I.S., National University, Sacramento

CONDOS, MARC (2002)  
**Computer Information Science**  
B.S., CSU Fresno  
M.A., CSU Sacramento

DUMAIS, LAURENCE (1999)  
**Computer Information Science**  
A.A., San Jose City College  
B.A., San Jose State University  
M.S., Golden Gate University

FISH, MELISSA (2002)  
**Office Administration**  
B.A., Boston College  
M.B.A., CSU Sacramento

FOX, DAVID E. (1998)  
**Computer Information Science**  
A.A., Columbia College  
B.S., CSU Stanislaus  
M.S., UC Davis
GILBERT-VALENCIA, DANIEL (2016)  
*Computer Information Science*  
B.A., UC San Diego  
M.S., Drexel University  
Ed.D., Drexel University

GONZALEZ, ROBERT (2000)  
*Business*  
B.A., B.S., CSU Sacramento  
M.B.A., Loyola Marymount University  
J.D., Loyola Law School

GREEN, WESLEY, P. (2001)  
*Computer Information Science*  
A.A., Chabot College  
B.S., CSU Chico

HALLE, JOEL (2003)  
*Accounting*  
B.S., M.B.A., CSU Sacramento

*Business*  
B.A, B.S., CSU Sacramento  
M.B.A., Loyola Marymount University  
J.D., Loyola Law School

HERMLE, RYAN (2016)  
*Computer Information Science*  
CA Teaching Credentials  
B.S., Cal Poly  
M.S., University of Washington

HUNT, SIMON (2016)  
*Computer Information Science*  
M.S., Georgia Institute of Technology

JURACH, JEFFREY (2016)  
*Real Estate*  
A.A., American River College  
B.S., M.B.A., CSU Sacramento

LEEGER, CAROL E. (2001)  
*Computer Information Science*  
B.A., M.A., CSU Sacramento

LONGORIA, TINA (1997)  
*Business*  
B.S., CSU Stanislaus  
M.A., California State University, San Bernardino

LORD, KATHLEEN (2005)  
*Computer Information Science*  
B.A., M.S., CSU Sacramento  
Ph.D., California State University, Sacramento

*Business/Marketing*  
B.S., M.B.A., University of Colorado

NAGI-CONDOS, RACHNA K. (1992)  
*Marketing/Management*  
B.S., Cal Poly  
M.B.A., CSU Stanislaus

NORDELL, RANDALL (2005)  
*Business*  
B.S., CSU Stanislaus  
M.A., Fresno Pacific University  
Ed.D., Argosy University

POLLARD, MARGARET P. (2001)  
*Accounting*  
B.A., UCLA  
M.B.A., CSU Sacramento

REILLY, ROBIN (2008)  
*Accounting*  
B.S., CSU Chico

SABZEVARY, IRAJ (1999)  
*Computer Information Science*  
B.A., National University  
M.A., CSU Sacramento

SHAUKAT, KAHKASHAN (2017)  
*Computer Information Science*  
B.A., Southern Illinois University  
M.B.A., Golden Gate University

ZHANG, LINGLING (2009)  
*Accounting*  
B.A., Xiamen University  
M.S., State University of New York  
M.B.A., CSU Hayward

**Counseling, Transfer & Student Services**

AGBUNAG, RODERIC (2010)  
*Counseling*  
B.A., 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., CSU Sacramento

ARNOTT, MICHELE (2014)  
*Health Center*  
A.A., Sacramento City College  
B.S.N., University of Hawai‘i  
M.S.N., CSU Sacramento

BECKHORN, NISHA B. (2006)  
*DSPS*  
B.S., UC Davis  
M.S., CSU Sacramento

BEVENS, MEGAN (2009)  
*Counseling*  
A.A., American River College  
B.A., UC Santa Barbara  
M.S., CSU Sacramento

BRITTINGHAM-GARRIDO, DANA LYNN (1989)  
*DSPS*  
B.A., CSU Northridge  
M.S., CSU Sacramento

CRONIN, KATHLEEN (2005)  
*Learning Disabilities*  
B.A., UC Santa Barbara  
M.A., San Francisco State University

DELGADO, DIANE (2005)  
*EOP&S/CARE*  
A.A., Portland Community College  
B.A., Marylhurst University  
M.S., Portland State University

DELGADO, LYDIA (2014)  
*Counseling*  
B.A., CSU Chico  
B.S., CSU Fullerton  
M.S., CSU Long Beach

DIGGS-REYNOLDS, TERA (2015)  
*SSSP*  
A.A., American River College  
B.S., CSU Sacramento  
M.S.W., CSU Sacramento  
Ed.D., CSU Sacramento

FORTMAN, ANITA (2005)  
*Counseling*  
B.S., University of Arizona  
M.S., CSU Sacramento

FOWLER, LYNN (2015)  
*Counseling*  
A.A., Sierra College  
B.A., CSU Long Beach  
M.S., CSU Long Beach

GOMEZ, MARTIN (2008)  
*EOP&S/CARE*  
B.A., UC Davis M.A., CSU Sacramento

ROBERT GRIFFIN (2017)  
*Veterans Resource Center*  
A.A. and A.S., Yuba Community College  
B.S., M.S., CSU Sacramento

HARDWICK, CHANIN (2008)  
*Counseling*  
B.A., UC Davis  
M.A., University of Phoenix

HERRELL, KIM (2002)  
*Counseling*  
B.A., UC Davis  
M.S., University of LaVerne

JENKINS, ARTHUR (2016)  
*EOP&S*  
B.A., University of the Pacific  
M.A., Alabama State University

KRONICK, LOUISE (1980)  
*DSPS*  
B.A., UC Berkeley  
M.S., CSU Sacramento

LO, KAYING (2016)  
*Counseling*  
B.A., University of Wisconsin-La Crosse  
M.S., University of Wisconsin-Stout  
M.Ed., Oregon State University  
Ed.D., UC Davis
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<th>Name</th>
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<td>MAYS, JUDY</td>
<td>2005</td>
<td>Counseling</td>
<td>A.A., Bakersfield Community College B.A., CSU Bakersfield M.A., Cal Poly, San Luis Obispo Ph.D., University of Texas</td>
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<td>MILLER, BONNIE</td>
<td>1998</td>
<td>Counseling</td>
<td>B.S., M.S., CSU Sacramento</td>
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<td>MOLINA-KANAE, MARTINA</td>
<td>2005</td>
<td>CalWORKS</td>
<td>M.S., University of LaVerne</td>
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<td>MOORE, REYNA</td>
<td>2010</td>
<td>Counseling</td>
<td>B.A. &amp; M.S., CSU Fresno</td>
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<td>NAZARENO, RANDY</td>
<td>2007</td>
<td>Counseling</td>
<td>A.A., Solano Community College B.A., CSU Sacramento M.S., CSU Sacramento</td>
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<td>NELSON, JESSICA</td>
<td>2008</td>
<td>Counseling</td>
<td>B.S., CSU Chico M.S., University of Oregon</td>
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<td>PALOMARES, CARMELITA</td>
<td>2017</td>
<td>Counseling</td>
<td>A.A., Folsom Lake College B.A., CSU Sacramento M.S., CSU Sacramento</td>
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<td>QUINTERO, ROBERT A.</td>
<td>2000</td>
<td>Counseling</td>
<td>B.A., M.S., San Francisco State University</td>
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<td>RAMIREZ, RICHARD A.</td>
<td>2000</td>
<td>Counseling</td>
<td>B.A., CSU Northridge M.S., San Francisco State University</td>
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<td>RASOR, LORI T.</td>
<td>2000</td>
<td>Counseling</td>
<td>B.A., M.S., CSU Sacramento</td>
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<td>RIVERA, RAFAEL</td>
<td>2005</td>
<td>Counseling</td>
<td>B.A., UC Davis M.S., CSU Sacramento</td>
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<tr>
<td>ROBERTS-LAW, LISA E.</td>
<td>1991</td>
<td>Counseling</td>
<td>B.A., University of Illinois M.S., Illinois State University</td>
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<td>RUST, JOE</td>
<td>2006</td>
<td>Counseling</td>
<td>B.A., M.S., CSU Sacramento</td>
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<td>SCALZI, JENNIFER</td>
<td>2007</td>
<td>Counseling</td>
<td>A.A., American River College B.A., M.S., CSU Sacramento</td>
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<td>SJOLUND, JOE</td>
<td>2002</td>
<td>Counseling</td>
<td>B.A., M.S., CSU Sacramento</td>
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<td>TUIFUA, AMELIA</td>
<td>2016</td>
<td>Counseling</td>
<td>A.A., Sacramento City College B.A., UC Berkeley M.S.W., University of Southern California</td>
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<td>VALDEZ, JUDITH</td>
<td>2015</td>
<td>EOPé/S/CARE</td>
<td>A.S., Porterville Community College B.A., CSU Sacramento M.S., CSU Sacramento</td>
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<td>VINSANT, DENISE</td>
<td>2017</td>
<td>Counseling</td>
<td>M.S., CSU Sacramento</td>
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<td>WHIPPLE, PAMELA</td>
<td>2014</td>
<td>Health Center</td>
<td>B.S.N., Michigan State University M.S.N., CSU Sacramento</td>
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<td>YATSENKO, TATYANA</td>
<td>2015</td>
<td>EOPé/S/CARE/NextUP</td>
<td>A.A., American River College B.A., Tallinn State Conservatory of Music M.S., National University</td>
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<td>ANGELONE, MICHAEL</td>
<td>2008</td>
<td>English</td>
<td>B.A., M.A., CSU Sacramento</td>
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<td>ARAMBEL, LEAH A.</td>
<td>2006</td>
<td>Reading</td>
<td>B.A., UC Davis M.A., San Francisco State University</td>
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<td>ARELLANO, CATHERINE</td>
<td>2014</td>
<td>English</td>
<td>A.A., Chabot College B.A., M.A., UC Berkeley M.F.A., University of Iowa</td>
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<td>BARNARD, GINA</td>
<td>2018</td>
<td>English</td>
<td>B.A., UC Davis M.F.A., San Diego State University</td>
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<td>BELL, JOHN T.</td>
<td>2003</td>
<td>English</td>
<td>B.A., University of New Mexico M.F.A., Wichita State University</td>
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<td>BERTOGLIO, NANCY ANN</td>
<td>1996</td>
<td>Reading</td>
<td>B.A., UC Davis M.A., CSU Sacramento</td>
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<td>BORCZ, ROBYN</td>
<td>2016</td>
<td>Reading</td>
<td>M.A., CSU Sacramento</td>
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<td>BRADFORD, AARON</td>
<td>2015</td>
<td>English</td>
<td>B.A., CSU, Long Beach M.F.A., CSU, Long Beach</td>
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<td>CLARKE, ARLENE G.</td>
<td>1989</td>
<td>English</td>
<td>B.A., M.A., San Francisco State University</td>
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<td>CORCORAN, AMANDA</td>
<td>2002</td>
<td>English</td>
<td>B.A., M.A., Texas Tech University</td>
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<td>CROWDER, MICHAEL</td>
<td>2017</td>
<td>Writing</td>
<td>B.A., UC Davis M.F.A., New School University</td>
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<td>DIAZ, MELISSA</td>
<td>2015</td>
<td>Writing</td>
<td>B.A., M.A., CSU Sacramento</td>
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<td>ENGLER-LYNCH, DENISE</td>
<td>2008</td>
<td>English</td>
<td>B.A., Santa Clara University M.A., Arizona State University</td>
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<td>GOURDINE, TRACI</td>
<td>2000</td>
<td>English</td>
<td>B.A., UC Davis M.A., San Francisco State University</td>
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<td>HESS, JOHN F.</td>
<td>2000</td>
<td>English</td>
<td>B.A., CSU Humboldt M.A., CSU Sonoma</td>
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<td>HOFFPAUR, CARINA</td>
<td>2016</td>
<td>English</td>
<td>B.A., University of Wyoming M.A., Ph.D., UC Santa Barbara</td>
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<td>HOWE, SUSAN R.</td>
<td>1996</td>
<td>English</td>
<td>B.Ś., M.A., CSU Sacramento</td>
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<td>KIEFER, CHRISTIAN</td>
<td>2009</td>
<td>English</td>
<td>B.A., USC M.A., CSU Sacramento Ph.D., UC Davis</td>
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<td>KLIER, JULIE ANN</td>
<td>2003</td>
<td>Reading</td>
<td>M.Ed., National University</td>
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<td>LAFLAM, JENNIFER</td>
<td>2014</td>
<td>English</td>
<td>B.A., UC Santa Cruz M.A., CSU Sacramento</td>
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</table>
LEE, DENNIS J. (2007)  
English  
B.A., Miami University  
M.A., University of Akron

LEIBROCK, RACHEL (2017)  
Journalism  
B.A. (2), CSU Sacramento  
M.A., Mills College

LEUNG, NOUE (2015)  
Reading  
B.A., National University  
M.A., UC Davis

English  
B.A., San Francisco State University  
M.A., Ph.D., UC Davis

LOVERING, JANAY (2013)  
English  
B.A., CSU Sacramento  
M.A., St. Mary’s College

LEONARD, ROBERT G. (2000)  
English  
B.A., American River College  
B.A., M.A., CSU Sacramento

MERSON, DAVID N. (1998)  
English  
B.A., Westmont College  
M.A., UC Davis

MORGAN, ROXANNE (2008)  
Reading  
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)  
Reading  
B.A., Pomona College  
M.A., San Francisco State University

PRIETO, CAROLINE (2018)  
Writing  
M.A., San Francisco State University

English  
B.A., CSU Bakersfield  
M.A., CSU Fresno  
Ph.D., UC Davis

ROADCAP, GORDON (2002)  
English  
B.A., Sonoma State University  
M.A., San Francisco State University

RODGERS, KATHERINE G. (2005)  
English  
B.A., Smith College  
Ph.D., Yale University

ROONEY, SUE ANN (1989)  
Reading  
B.A., CSU Sacramento  
M.A., St. Mary’s College

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

YOUNGS, CYNTHIA A. (2001)  
Reading  
B.A., Winona State University  
M.A., Oakland University, Michigan

Fine & Applied Arts

ARNFELD, REBECCA (2016)  
Art History  
B.A., UC Santa Barbara  
M.A. (2), UC Davis

BROZOVICH, TOM J. (1965)  
Art  
M.A., UCLA

BURLESON, KATHRYN B. (1989)  
Theatre Arts  
B.A., CSU Sacramento  
M.F.A., UC Davis

CHUN, ERIC (1988)  
Music  
B.A., California Lutheran University

COOLEY, MARIE K. (1998)  
Interior Design  
A.A., College of the Sequoias  
B.A., M.A., CSU Sacramento

DIEU, ANNE (2017)  
Fashion  
B.S., UC Davis  
M.S., Kansas State University

DOWNS, PAMELA (2008)  
Theatre Arts  
B.F.A., Southwest Missouri State University  
M.F.A., UC Davis

EIFERTSEN, DYNE CHANEN (2003)  
Music  
D.M.A., University of Washington  
M.M., University of Massachusetts

GARDNER, DOUGLAS E. (1960)  
Art  
B.A., Sacramento City College  
B.A., M.A., CSU Sacramento

GELFMAN, LINDA (2003)  
Art  
M.A. CSU Sacramento  
B.F.A., University of Illinois

GILMAN, JOSEPH A. (1992)  
Music  
B.M., Indiana University  
M.M., Eastman School of Music  
Ed.D., University of Sarasota

HAMRE, SUSAN (2009)  
Music  
B.A., Augustana College  
M.M., CSU Northridge

HOOKER, JODIE (2002)  
Art  
B.F.A., M.A., Alfred University  
M.F.A., University of Buffalo

HUGHES, RALPH E (1991)  
Music  
B.A., M.A., CSU Sacramento  
D.M.A. (Conducting), University of South Carolina

KNIRK, BRIAN (1999)  
Hospitality Management  
B.S., Cal Poly  
M.B.A., University of Southern California  
Ed.D., Drexel University

LaPIERRE, ARTHUR (1997)  
Music  
A.A., Fullerton College  
B.M., M.A., CSU Long Beach  
D.A., University of Northern Colorado

MARTE, DYANNE (2016)  
Fashion  
B.F.A., Savannah College of Art and Design  
M.F.S., Pratt Institute

MARTINEZ, CRAIG (2008)  
Art/Computer Graphics  
B.S., UC Davis

MATTSON, SARAH S. (2006)  
Art  
B.F.A., M.F.A., CSU Long Beach

Interior Design  
B.F.A., Otis Art Institute of Parsons School of Design  
M.A., University of Central Florida

Hospitality Management  
A.A., Skyline College

PARKER, LAURA (1997)  
Art/Computer Graphics  
B.A., M.A., CSU Sacramento
Health & Education

AUCOIN-RATCLIFF, DEBRA (2003) Nursing
B.S.N., Point Loma Nazarene University
M.A., University of Iowa
D.N.P., Case Western Reserve University

BARTOE, TIMOTHY (2018) Nursing
A.A., Cosumnes River College
A.S., Sacramento City College
B.S., Kaplan University
M.S.N., Kaplan University

BECCARELLI, LORI (2017) Nutrition
B.S., UC San Diego
R.D., UC Davis Medical Center
Ph.D., UC Davis

BLANEY, JULIE (2015) Nursing
B.S.N., West Texas University
M.S.N., Gonzaga University

BONHAM, JACQUELINE (2003) Nursing
Diploma, St. Francis School of Nursing
M.S.N., B.S.N., CSU Sacramento

CHOU, SUSAN (2005) Nutrition
B.A., B.S., M.S., 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

CZAJA, DIANE (2017) Respiratory Care
A.S., Ivy-Tech Community College
B.S., Purdue University

M.S.N., Case Western Reserve University
G.N.M., Frontier School of Midwifery
B.S.N., University of Utah

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

B.S., Cal Poly
Ph.D., U.C. Davis

GOOLD, GRANT (1997) Paramedic
B.A., CSU Sacramento
M.P.A./H.S.A., Ph.D., University of San Francisco

HARRIS-NEBLETT, CHARLOTTE (2007) Nursing
B.A., Fisk University
B.S., M.A., CSU Sacramento

ILAGA, LISA (2008) Respiratory Care
A.S., Frederick Community College
B.S., Salisbury State University

JOHNSTON, DIANA LYNN (2002) Nursing
BSN, M.S.N., CSU Sacramento

KIRKMAN, JAYANTI (2018) Nursing
M.S., Walden University

KLEEMANN, JOEY (1988) Nursing
A.S., Long Beach City College
B.S.N., Sonoma State University
M.S.N., University of San Francisco

KRAFT, MARY ELLEN (2011) Nursing
A.S., Solano College
B.S.N., Regents College
M.S., UC San Francisco

LOPEZ, VERONICA (2016) Nutrition
B.A., UC Santa Cruz
Ph.D., UC Davis

MARTIN, ERIC (1989) Paramedic
B.A., CSU Chico
M.A., University of Nevada

MENTINK, KATHLEEN (2004) Nursing
F.N.P., UC Davis
M.S.N., B.S.N., CSU Sacramento

NOWICKI, LAZETTE (2008) Nursing
B.A., Jamestown College
M.S.N., University of North Dakota

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

PEÑA-GRAFTON, YENY (2017) Healthcare Interpreting
B.A., CSU Fresno
### Humanities

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<tr>
<th>Name</th>
<th>Degree(s)</th>
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<tr>
<td>Arrieta, Corinne</td>
<td>(2006) Spanish</td>
<td>B.A., Grove City College&lt;br&gt;M.A., CSU Sacramento</td>
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<tr>
<td>Burchall, Jill</td>
<td>(2011) Deaf Culture &amp; ASL Studies</td>
<td>B.S., Gallaudet University&lt;br&gt;M.S., McDaniel College</td>
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<tr>
<td>Chow, Lorraine</td>
<td>(1997) Early Childhood Education</td>
<td>B.S., UC Davis&lt;br&gt;M.A., UC Santa Barbara</td>
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<td>Heiser, Ceydy</td>
<td>(2002) Spanish</td>
<td>B.S., Universidad de las Americas&lt;br&gt;M.A., UC San Diego</td>
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<td>Jones, Marie</td>
<td>(2010) Early Childhood Education</td>
<td>A.A., American River College&lt;br&gt;B.S., CSU Chico&lt;br&gt;M.A., CSU Sacramento</td>
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<tr>
<td>Komura, Keiko</td>
<td>(1999) English as a Second Language</td>
<td>A.A. Sacramento City College&lt;br&gt;B.A., UC Davis&lt;br&gt;M.A., CSU Sacramento</td>
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<td>McKnight-Flentroy, D</td>
<td>(2017) Foster &amp; Kinship Care</td>
<td>M.S., CSU Sacramento</td>
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<td>Humanities</td>
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<td>West-Oyele, Erica</td>
<td>ASL/English Language Interpreting Preparation</td>
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<td>Squire, Martha</td>
<td>Library</td>
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<td>2006</td>
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<td>Distance Education</td>
<td>2014</td>
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<td>English, Joanne C.</td>
<td>Physical Education</td>
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<td>Finney, Timothy J.</td>
<td>Physical Education/Athletics</td>
<td>2006</td>
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<td>Giorgi, Mark R.</td>
<td>Physical Education</td>
<td>1998</td>
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<td>Hansen, Paul</td>
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<td>Higgins, Kevin J.</td>
<td>Physical Education</td>
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<td>Physical Education</td>
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<td>Jumelet, Doug A.</td>
<td>Physical Education</td>
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<td>Smith, Sunny</td>
<td>Physical Education</td>
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<td>Sullivan-Torrez, Kathleen</td>
<td>Physical Education</td>
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**Instruction & Learning Resources, Distance Education/Virtual Education Center**

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<td>Ayala, Connie C.</td>
<td>Learning Resources Center</td>
<td>2006</td>
<td>B.S., UC Davis                          M.S., CSU Sacramento</td>
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<td>Bimbi, Pamela</td>
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<td>2014</td>
<td>M.L.I.S., San Jose State</td>
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<td>Library</td>
<td>1996</td>
<td>B.A., UC Irvine                         M.S.L.S., University of Southern California</td>
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<td>English, Joanne C.</td>
<td>Physical Education</td>
<td>1989</td>
<td>B.S., CSU Sacramento                    M.S., Washington State University</td>
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**Kinesiology & Athletics**

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<tr>
<td>Allison-Powless, Jeannette</td>
<td>Physical Education</td>
<td>2003</td>
<td>B.S., CSU Northridge                    M.S., University of West Florida, Pensacola</td>
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<tr>
<td>Anderson, Rick D.</td>
<td>Physical Education</td>
<td>2001</td>
<td>B.S., M.S., CSU Sacramento</td>
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<td>Arellanes, Paul</td>
<td>Physical Education</td>
<td>2006</td>
<td>A.A., Cosumnes River College             B.S., CSU Sacramento                    M.S., US Sports Academy</td>
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<td>Baiz, Louis</td>
<td>Physical Education</td>
<td>2018</td>
<td>M.A., CSU Sacramento</td>
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<td>Black, Eric</td>
<td>Physical Education</td>
<td>2005</td>
<td>B.S., San Jose State University         M.A., Saint Mary's College</td>
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<td>English, Joanne C.</td>
<td>Physical Education</td>
<td>1989</td>
<td>B.S., CSU Sacramento                    M.S., Washington State University</td>
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</table>
Mathematics

ABDUL, ALISHER (1997)  
Mathematics  
B.S., National University  
M.S., Moscow St. University  
Ph.D., Moscow Institute of Technology & Physics

ANDRE, PAUL (1996)  
Mathematics  
B.S., University of Minnesota  
M.A., CSU Sacramento

ANISHCHENKO, LANIA (2018)  
Mathematics  
M.S., Tashkent State University

BARCELLOS, ANTHONY (1987)  
Mathematics  
A.A., Porterville College  
B.S., California Institute of Technology  
M.S., CSU Fresno  
Ph.D., UC Davis

BIRDSALL, LILL H. (2006)  
Mathematics  
B.S., M.A.T., UC Davis

BREDEK-COYNE, CYNTHIA (2008)  
Mathematics  
B.S., University of South Florida  
M.S., University of Central Florida

BROCK, MICHELLE (2012)  
Mathematics  
B.A., CSU Sacramento  
M.A., University of San Francisco

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

DAVIS, WILLIAM (2004)  
MESA/CCCP  
A.S., Santa Rosa Junior College  
B.A., M.A., Sonoma State University  
M.S., Ph.D., UC Davis

De LEON, LEONEL (1991)  
Mathematics  
B.A., M.A., CSU Fresno

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., MAT, UC Davis

GOTT, SHARON (2014)  
Mathematics  
B.S., M.A.T., Virginia Commonwealth 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

HEEREN, CHRISTOPHER (2011)  
Mathematics  
B.A., M.A., CSU Sacramento

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

OVERGARD, JAYNE (2016)  
Mathematics  
B.S., University of Wisconsin at Madison  
M.S., Texas A&M 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

RIDGWAY, THEODORE A. (2000)  
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

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

Mathematics  
B.S., Duke University  
M.S., Vanderbilt University  
Ph.D., UC Davis

TRUONG, BINH (2002)  
Mathematics  
B.S., University of Washington  
M.S., New Mexico State University  
Ph.D., UC Davis

WALKER, JAMES E. (1987)  
Mathematics  
B.S., M.A., UC Davis

McClellan / Sacramento Regional Public Safety Training Center (SRPSTC)

GORRE, CHARISSA (2007)  
Sacramento Regional Public Safety Training Center  
B.A., California State University  
M.A., National University

POAGUE, ROBIN (2019)  
Sacramento Regional Public Safety Training Center  
B.S., University of Arizona  
J.D., University of Arizona

RILEY, LONETTA (2008)  
Sacramento Regional Public Safety Training Center  
B.A., University of Nebraska  
M.S., George Peabody College of Vanderbilt University
Science & Engineering

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
M.A., UC Davis

BRADSHAW, KATHRYN (2003)
Biology
B.A., UC Santa Cruz
M.S., CSU Sacramento

CASALE, KRISTIN G. (1994)
Chemistry
B.A., U.C. Berkeley
Ph.D., UC Davis

ECCKERMAN, PAMELA J. (1993)
Biology
A.A., American River College
B.S., M.S., UC Davis

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

Chemistry
B.S., University of Hawaii
M.S., UC Davis

HOWARD, HUGH H. (2005)
GIS/Geography/Earth Science
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

Chemistry
B.S., Ph.D., UC Davis

KOSKELO, ILKKA (2000)
Physics
M.S., UC Santa Barbara

KUBO, KENNETH M. (1998)
Biology
B.S., Stanford University
Ph.D., UC San Francisco

LEVY, MELISSA H. (1999)
Earth Science
B.S., M.A., East Tennessee State University

LOUCKS, STUART (2000)
Physics
B.S., M.S., UCLA

Chemistry
B.S., Hons, Bath University, UK
Ph.D., Oxford University, UK

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., CSU Fresno
M.S., M.A., UC Davis

MORENO, MINERVA (1993)
Engineering
B.S., University of Morelos, Cuernavaca, Mexico
M.S., University of Waterloo, Ontario

NEALE, JENNIFER C. (2006)
Natural Resources/Science
B.A., UC Santa Cruz
Ph.D., UC Davis

NIEZDZINSKI, EDMUND (2008)
Chemistry
B.S., University of Scranton
Ph.D., UC Davis

PAYNE, MICHAEL (2014)
Chemistry
B.A., CSU Sacramento
M.S., CSU Sacramento

Chemistry
B.S., M.S., UC Davis

RAMONES, SUSAN (2013)
Biology
B.S., UC Davis
M.S., CSU Sacramento

RIVERS, LYNN M. (2001)
Biology/Health Science
A.A., Mt. San Antonio College
B.S., Brigham Young University
M.A., CSU Chico
Ph.D., Texas Woman's University

ROY, DEBOLEENA (2001)
Chemistry
B.S., M.S., Jadavpur University, India
Ph.D., Texas Tech University

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., 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., UC Davis
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

TORRANO, MARY E. (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., UC Los Angeles
WEISSBART, BRIAN (2005)
Chemistry
B.S., UC Riverside
Ph.D., UC Davis

WHEATON, VERONICA (2008)
Chemistry
B.A., M.S., CSU Hayward
M.S. Ed., Widener University

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
Ph.D., UCLA

WOLSEY, MARCELLA J. (1998)
Biology/Anatomy/Physiology
B.A., Southern College, Tennessee
M.A., Loma Linda University
Ph.D., UC Davis

YOUNG, SHIH-WEN MICHAEL (2003)
Physics/Physical Science
B.S., National Taiwan Normal University
Ph.D., Kansas State University

ZARATE, VICTOR H. (2005)
Physics
M.S., B.S., UC Berkeley

ZARZANA, LINDA (1989)
Chemistry
B.S., UC Davis
M.S., CSU Sacramento

ZHAO, YU (JOY) (2007)
Biology
B.S., Capital Normal University, Beijing
M.S., California State Polytechnic University
Ph.D., Loma Linda University

BEAUSHAW, FRANK (2015)
Diesel Technology
A.S., American River College

EVANGELISTI, FRED (1998)
Electronics Technology
A.A., American River College
B.A., 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

Electronics Technology
A.A., Golden West College
A.S., American River College
B.S., Cal Poly, Pomona

HARPER, ERIC (2002)
Automotive Technology
A.A., Sierra College
B.S., CSU Sacramento

McCORMACK, JOHN (2001)
Automotive Technology
A.A., Sierra College
B.V.E., CSU Sacramento
M.Ed., CSU Sacramento

MESSIER, CHRISTOPHER (2015)
Welding Technology
Certification, Cosumnes River College

MEYER, JORDAN (2015)
Electronics Technology
B.S., UC San Diego
M.S., UC San Diego

MOORE, CHRISTOPHER (2012)
Automotive Technology
A.S., American River College

REESE, MARK ALAN (2003)
Welding Technology
A.A., American River College
B.V.E., CSU Sacramento
IMET, CSU Sacramento

Design Technology
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Diesel/Clean Diesel Technology
& Automotive Collision Technology
B.V.E., CSU Sacramento
A.A., American River College
B.S., CSU Sacramento
M.S., CSU East Bay

Technical Education

AGUILAR, GARY (1999)
Design Technology
B.A., California State Polytechnic University
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Electronics Technology
B.S., University of Oklahoma
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ANDRONAS, JENNIFER (2014)
Automotive Technology
A.S., Sierra College
B.S., CSU Sacramento

Workforce & Economic Development

DILLON, VIVIAN (2013)
Work Experience & Internships
B.A., UC Santa Barbara
M.S., CSU Northridge

MPAGAZI, TIFFANY (2014)
Career Education
& Workforce Development
B.A., University of the Pacific
M.A., CSU Sacramento
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