In this section you will find:

- Degrees and certificates
- Graduation requirements
- General education requirements
- Detailed information on all programs leading to a degree or certificate
degrees and certificates

Students come to American River College to pursue many different educational goals. However, other than those who attend to take only a few classes, most students have one of three objectives: an associate degree, a certificate, and/or transfer to a four-year college or university.

associate degree programs

American River College offers both Associate in Arts and Associate in Science degrees. Students majoring in one of the two-year curricula and planning to graduate with the Associate degree must complete all of the required courses for a major (from 18 to approximately 30 plus units), fulfill general education requirements and sufficient electives to meet a minimum total of 60 units. The following majors for the degree are incorporated in the following programs of study:

<table>
<thead>
<tr>
<th>Accounting</th>
<th>The Individual and Society (Interdisciplinary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Assistant (Business Tech)</td>
<td>*Information Systems Security (Computer Information Science)</td>
</tr>
<tr>
<td>Advertising &amp; Sales Promotion (Marketing)</td>
<td>Interior Design</td>
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<tr>
<td>*Anthropology</td>
<td>Interpreter Preparation Program (Sign Language Studies)</td>
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<tr>
<td>Art</td>
<td>Jazz Studies (Music)</td>
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<tr>
<td>Art New Media</td>
<td>Journalism and Mass Communication</td>
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<tr>
<td>*Automotive Analysis</td>
<td>*Landscape Industry (Horticulture)</td>
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<tr>
<td>*Automotive Collision Technology</td>
<td>Language Studies (Interdisciplinary)</td>
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<tr>
<td>*Automotive Component Service Technician</td>
<td>Legal Assisting</td>
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<tr>
<td>*Automotive Technology</td>
<td>*LVN to RN Career Mobility (Nursing)</td>
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<tr>
<td>*Biotechnology</td>
<td>Management</td>
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<tr>
<td>Business, General</td>
<td>Marketing</td>
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<tr>
<td>Business Transfer</td>
<td>*Mathematics</td>
</tr>
<tr>
<td>Chemical Dependency (Human Services)</td>
<td>*Mathematics/Physical Science</td>
</tr>
<tr>
<td>Commercial Music: Business</td>
<td>*Mechtronics (Electronics Technology)</td>
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<tr>
<td>Commercial Music: Recording</td>
<td>Microcomputer Applications</td>
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<tr>
<td>*Computer Programming</td>
<td>(Computer Information Science)</td>
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<tr>
<td>*Computer Science</td>
<td>Modern Management</td>
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<td>*Computer Networking Management</td>
<td>Music</td>
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<tr>
<td>Culinary Arts/Restaurant Management</td>
<td>*Natural Resources</td>
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<tr>
<td>(Hospitality Management)</td>
<td>*Nursing, Registered</td>
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<td>*Database Management (Computer Information Science)</td>
<td>*Nursery Industry (Horticulture)</td>
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<tr>
<td>*Design Technology</td>
<td>Office Administration (Business Technology)</td>
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<td>*Diesel Mechanics</td>
<td>*Paramedic</td>
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<tr>
<td>Early Childhood Education</td>
<td>*PC Support Management (Computer Information Science)</td>
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<tr>
<td>*Electronic Systems Technology (Electronics Technology)</td>
<td>Psychology</td>
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<tr>
<td>*Engineering Technology (Design &amp; Engineering)</td>
<td>Real Estate</td>
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<tr>
<td>*Engineering Transfer (Design &amp; Engineering)</td>
<td>Recreation Management</td>
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<tr>
<td>English</td>
<td>*Respiratory Care</td>
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<tr>
<td>English Communication and Literature</td>
<td>Retail Management (Marketing)</td>
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<tr>
<td>(Interdisciplinary)</td>
<td>*Science, General</td>
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<tr>
<td>Family &amp; Consumer Science</td>
<td>Sign Language Studies: Business</td>
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<tr>
<td>Fashion Design</td>
<td>Sign Language Studies: Human Services</td>
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<tr>
<td>Fashion Merchandising</td>
<td>Small Business Management (Business)</td>
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<tr>
<td>Fire Technology</td>
<td>Social Science</td>
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<tr>
<td>*Funeral Service Education</td>
<td>Technical Communications (Art New Media, CIS, English)</td>
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<tr>
<td>General Education - Transfer</td>
<td>Theatre Arts: Acting</td>
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<tr>
<td>*Geographic Information Systems (Geography)</td>
<td>Theatre Arts: Technical</td>
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<td>*Geography</td>
<td>*Welding Technology</td>
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<tr>
<td>Gerontology</td>
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<tr>
<td>History of the Creative Arts (Interdisciplinary)</td>
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<tr>
<td>Human Services</td>
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</tbody>
</table>

*Associate in Science degree programs
**Certificate Programs**

The Career Certificate (18 units or more) and the Certificate of Completion (17.5 units or less) are offered to students completing program requirements. Certificate programs have been developed, with the assistance of business and industrial advisory committee, to provide vocational training for students who are not necessarily seeking a college degree.

A Career Certificate certifies that a student has completed all required courses for a major and is prepared to enter the career designated on their certificate. Career certificates require 18 units or more with a 2.0 grade point average in the courses leading to the certificate. A minimum of 12 units must be completed at American River College. Career Certificates may be earned in the following areas:

- Accounting
- Accounting Clerk
- Administrative Assistant (Business Technology)
- Automotive Analysis
- Automotive Claims Estimator
- Automotive Collision Technology
- Automotive Component Service Technician
- Automotive Service Technician
- Automotive Technology
- Biotechnology
- Business, General
- Chemical Dependency Studies (Human Services)
- Commercial Music: Business
- Commercial Music: Recording
- Computer Networking Management
- Culinary Arts/Restaurant Management (Hospitality Management)
- Culture and Diversity Specialist (ECE)
- Database Management
- Design Technology
- Diesel Technology
- Early Childhood Education Management Specialist
- Electronics Systems Technology
- Engineering Technology (Design and Engineering)
- Fashion Design
- Fashion Merchandising
- Fire Technology
- GIS - Interdisciplinary Applications
- General Education, CSU
- Gerontology
- Graphic Design (Art New Media)
- Human Services
- Illustration (Art New Media)
- Infant Specialist (ECE)
- Information Systems Security (Computer Information Science)
- Interior Retail Merchandising (Interior Design)
- International Studies (Political Science, Social Science)
- Interpreter Training (Sign Language Studies)
- Intersegmental General Education Transfer (IGETC)
- Kitchen and Bath Design (Interior Design)
- Landscape Industry (Horticulture)
- Legal Assisting
- Licensed Vocational Nurse (LVN) 30-unit option
- Management
- Master Teacher (ECE)
- Mechtronics (Electronics Technology)
- Microcomputer Applications
- Modern Management
- Natural Resources
- Nursery Industry (Horticulture)
- Office Administration (Business Technology)
- Office Careers - Fast Track (Business Technology)
- Office Technology (Business Technology)
- Paraprofessional Interior Design Assistant
- Paramedic
- PC Support (Computer Information Science)
- Computer Programming (Computer Information Science)
- Real Estate
- Restaurant Management (Hospitality Management)
- Retail Management/WAFC (Marketing)
- School Age (ECE)
- Sign Language Studies (multiple certificates)
- Site Supervisor (ECE)
- Small Business Management (Business)
- Teacher (ECE)
- Technical Communications (Art New Media, CIS, English)
- Telecommunication Specialist (English)
- 3D Animation (Art New Media)
- Transmission Specialist
- Web Design (Art New Media)
- Web Developer (Computer Information Science)
- Web Publishing (Computer Information Science)
certificates of completion

Certificates of Completion 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 Certificate of Completion issued by the department. The certificate requires completion of all courses listed in the required program of the student. Certificates of Completion require 17.5 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. Certificates of Completion are issued by the department listed in parentheses.

<table>
<thead>
<tr>
<th>Level</th>
<th>Units</th>
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<tbody>
<tr>
<td>1</td>
<td>3-6</td>
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<tr>
<td>2</td>
<td>7-11</td>
</tr>
<tr>
<td>3</td>
<td>12-17.5</td>
</tr>
</tbody>
</table>

Acting (Theatre Arts) Level 3
Activity Coordinator (Gerontology) Level 2
Acute Care Certified Nurse Assistant (Nursing) Level 2
Advanced Electronic Assembly & Telecommunications (Electronics Tech) Level 3
Air Conditioning Service (Automotive Technology) Level 3
Assistant Teacher (Early Childhood Education) Level 1
Associate Teacher (Early Childhood Education) Level 3
Basic Electronic Assembly and Telecommunications (Electronics Tech) Level 2
Certified Nurse Assistant (Nursing) Level 1
Children's Theatre (Theatre Arts) Level 3
CMOS Mask Design (Electronics Technology) Level 3
Computer Information Security Essentials (Computer Information Science) Level 3
Costuming (Theatre Arts) Level 3
Digital Repair and Upgrade Technician (Electronics Tech) Level 3
Dietary Manager/Dietary Supervisor (Nutrition & Foods) Level 3
Family Child Care (Early Childhood Education) Level 3
Family Service (Early Childhood Education) Level 3
Fiber Optics (Electronics Technology) Level 3
Film (Theatre Arts) Level 3
Fitness Specialist (Physical Education) Level 3
Floristry (Horticulture) Level 2
Gas Metal Arc and Flux Core Arc Welding Plate (Welding) Level 2
Gas Tungsten Arc Plate and Pipe Welding (Welding) Level 2
Home Health Aide (Nursing) Level 2
Introduction to Modern Management (Management) Level 3
Introduction to Law and Legal Research (Legal Assisting) Level 1
Introduction to Leadership in Action (Management) Level 3
Introductory Baking (Hospitality Management) Level 3
Jazz Studies (Music) Level 3
Law Office Assistant (Legal Assisting) Level 3
Leadership in Action: Psychology & Team Facilitation (Management) Level 2
Leadership in Action: Systems Thinking (Management) Level 2
Leadership Development (Student Government) Level 3
Leadership in Action: Theory of Knowledge /Prediction (Management) Level 2
Leadership in Action: Variation and Statistics (Management) Level 2
Modern Management (Management) Level 3
Musical Theatre (Theatre Arts) Level 3
Network Administration Essentials - Windows Level 3
Office Assistant (Business Technology) Level 2
Parts and Service (Automotive Technology) Level 3
Program Assistant (Gerontology) Level 1
Robotics (Electronics Technology) Level 3
Shielded Metal Arc Plate and Pipe (Welding) Level 3
Social Service Designee (Gerontology) Level 1
Taxation (Accounting) Level 3
Technical Theatre (Theatre Arts) Level 3
Undercar Service (Automotive Technology) Level 3
Virtual Office Professional (Business Technology) Level 3
Welding Metallurgy and Inspection (Welding) Level 3
apprenticeship

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 the Joint Apprenticeship Training Committee (JATC) and the college. The JATC is composed of representatives from both labor and management. All apprenticeship programs are approved by the Division of Apprenticeship Standards of the California Department of Industrial Relations.

Enrollment in an apprenticeship course is limited to registered apprentices. Information on admission to apprenticeship status can be obtained from the local JATC having jurisdiction over the trade in which you are interested, or from the office of the Dean of Technical Education. Apprenticeship programs are available in:

- Carpenter
- Drywall/Lathing
- Electrical
- Electrical Sound and Communications
- Ironworkers
- Sheet Metal

career and technical education

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 an occupational/vocational 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 is a unique, experiential, academic program which allows students to apply what they have learned in the classroom to a work environment. Upon comple-

tion of their Work Experience (WEXP) orientation course, students may earn 1-4 units of transferable credit with a letter grade. Work Experience serves: College interns, volunteers, and employees. See: https://wexp.losrios.edu

WEXP internships & opportunities

Internships and volunteer experiences provide an opportunity for students to obtain work experience related to their academic or career goals. Internships assist students with developing technical skills, exploring possible career choices, building confidence, networking with people in the field, and transitioning for entry into a competitive labor market.

Students interested in internship placement assistance must apply two or more weeks before classes start through the program website https://wexp.losrios.edu/ Students are required to participate in a weekly career management orientation (course). College credit is earned based on hours worked. Positions may be paid or unpaid.

Employees

Work experience also assists our busy employed students who are interested in advancing within their existing work environment. Through WEXP and the approval of 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.

How the Co-op Work Experience and Internship Program works

There are two types of Work Experience Programs: Occupational and General Work Experience.

Occupational work experience (298/498)

Provides students with opportunities to develop or add marketable skills related to their major study programs. These units may count towards the Area III GE pattern, and possibly elective units or major units, only 498 units are transferable to CSU.

Eligible students must:

- Be working in a paid or non-paid internship, job, or volunteer opportunity. Students not currently in an internship opportunity who would like assistance should contact the Work Experience & Internship Program website at https://wexp.losrios.edu/.
- Have a cooperating employer by the end of the third week of the full semester or first week of an eight week (or summer session) to remain in the weekly orientation (course).
- Establish new or expanded on-the-job learning objectives with employer’s assistance that will be documented and evaluated.
• Attend a weekly career management orientation (course) or qualify for the “Returning Student” status. However, attendance is required for everyone for the first orientation meeting or as stated by the instructor.
• Understand Work Experience requirements and unit limitations as defined by your major department requirements. Talk to an advisor or faculty in your major department.
• Register for 1-4 units. One unit of credit may be earned for each 75 hours of paid work experience or for 60 hours of non-paid work experience. A total of 16 units may be earned in Occupational Work Experience.

NOTE: To assist in a successful experience and learning opportunity, ESL students are recommended to have taken ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process to benefit from program participation.

General Work Experience (198)

General work experience education assists students in learning about the world of work and is open to all students regardless of major. 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 the Area III GE pattern, and possibly elective units or major units. 198 units are NOT transferable.

Eligible students must:
• Be working in a paid job or volunteer opportunity. Students not currently in an internship opportunity who would like assistance should contact the Work Experience & Internship Program website at https://wexp.losrios.edu/
• Have a cooperating employer by the end of the third week of the full semester or first week of an eight week (or summer session) to remain in the weekly orientation (course).
• Establish new or expanded on-the-job learning objectives with employer’s assistance that will be documented and evaluated.
• Attend a weekly career management orientation (course) or qualify for the “Returning Student” status. However, attendance is required for the first orientation meeting or as stated by the instructor.
• Register for 1-3 units (Work Experience 198). One unit of credit may be earned for each 75 hours of paid work experience or for 60 hours of unpaid work experience. A total of 6 units may be earned in General Work Experience.

NOTE: To assist in a successful experience and learning opportunity, ESL students are recommended to have taken ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process to benefit from program participation.

Work Experience (198/298/498) or (Subj) 298/498

WEXP has two different ways to qualify for the program:

New Student Status:
• This is your first time in a Work Experience course.
• You are working a paid or non-paid internship, job, or volunteer opportunity.
• You must attend the orientation (course) which meets once a week. This orientation will cover workforce/career transition issues and preparedness.
• Your grade and units are earned based on your performance in the workplace (developing new skills) and classroom assignments.

Returning Student Status:
• 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 a paid or unpaid internship, job, or volunteer opportunity.
• No weekly attendance is required for this status except for the first orientation meeting. However, you must establish new 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 performance in the workplace (developing new skills) and classroom assignments.

For more information, call 916.484.8182 or visit our website: https://wexp.losrios.edu/

Independent and Special 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 and/or Special Study. Units taken in either Independent or Special Study may not be transferable, however; the student should consult a counselor regarding a specific college or university’s acceptance of these units. No more than one study may be taken per semester, except regularly scheduled special study classes.

Regular meetings between student and instructor will be held; examinations or other measures of evaluation, field trips, term papers, and other assignments may be required by the instructor.

Independent Study

An opportunity for the student to extend classroom experience in a specific 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; it carries the same credit and hour value as the class being extended. 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 an instructor in the subject and secure approval. Only one independent study for each catalog course will be allowed.
special study
An opportunity to pursue a study of special interest which is not specifically covered in established catalog courses. Such study is confined to the scope of college lower division, and community college programs. While enrollment in Special Study may be on an individual basis, from time to time a special study may be established to satisfy the needs of a particular group, offered on a scheduled basis for enrollment through the regular registration process. To qualify for Special Study, the student should have completed college courses basic to the study, or have had actual field experience or special training in the field of study. Credit to a four-unit maximum is given on the basis of one unit for each 18 hours of lecture or equivalent. Note that four-year colleges and universities may not accept more than one special study in a subject and may limit the total number of special study units accepted. No more than 12 special study units may be used to fulfill graduation requirements at American River College.

Application
To apply for Independent or Special Study, a student first discusses the study with the instructor who will supervise the study and with the area dean. The student then completes the petition and course description forms with the assistance of the supervising instructor, who will process the petition. If it receives final approval, the student is registered in the course and receives a grade as in any regularly scheduled course. If it receives final approval, the student is registered in the course and receives a grade as in any regularly scheduled course. Petition for Independent or Special Study must be filed by the deadline published in the class schedule in the semester in which the study is to be completed.

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). In most departments, courses are now numbered in prerequisite order (MATH 25, 32, 100, 120, & 300, for example).

- 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. 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 such as Supervised Tutoring (e.g., HSER 1000 or HCD 1000), and for block scheduling purposes (e.g., Learning Community courses).

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 calendar in the class schedule. 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 related 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) 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.

Please 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.
**ARC graduation requirements 2008-2009**

American River College grants the degree of Associate in Arts or Associate in Science. Requirements for the degree conform to the laws and regulations of the California Community Colleges Board of Governors and the Los Rios Community College District Board of Trustees.

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

1. Satisfactory completion of 60 units of collegiate work (excluding 200 – 299 numbered courses taken Fall 1989 – Spring 2003, 1-99 numbered courses & courses numbered 1,000 or higher taken after Spring 2003) 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. Courses may be used to meet competency and/or general education requirements only if the course appears on the appropriate list at the time it was taken regardless of catalog rights. If a course is taken after it is removed from the competency and/or general education list it will not count, regardless of the student's catalog rights.

3. Major: Complete a two-year Major Program of Study offered at American River College (Minimum 18 units).

4. Completion of ARC's general education requirements (21 unit minimum) or possession of a Baccalaureate Degree or higher from a *regionally accredited college or university in the U.S.

5. 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.

   A. **WRITTEN EXPRESSION COMPETENCY** is satisfied by the following:
      a. Completion with a C or better in one of the following courses or its equivalent at a *regionally accredited college in the U.S.: BUS 310; ENGWR 103, 300, 480; ESLW 340.
      b. Passing an acceptable college writing course taken at a *regionally accredited college in the U.S. with a grade of C or better.
      c. Possession of an AA/AS or higher from a *regionally accredited college in the U.S.

   B. **READING COMPETENCY** is satisfied by one of the following:
      a. Completion with a C or better of one of the following courses: ENGRD 310, 312; ESLR 340.
      b. Completion with a C or better of an equivalent college level reading course at a *regionally accredited college in the U.S.
      c. Possession of an AA/AS or higher from a *regionally accredited college in the U.S.
      d. Achieving a qualifying score on a college level reading examination administered by a Los Rios Assessment Center. Only 2 attempts are permitted district-wide on this test.

   C. **MATHEMATICS COMPETENCY** is satisfied by one of the following:
      a. Complete one of the following with a ‘C’ or better: MATH 100 or higher-level math course; AT 105; ET 310; ET 311; PHIL 325; PSYC 330; STAT 301; WELD 140.
      b. Complete an equivalent course with a C or better at a *regionally accredited college in the U.S.
      c. Obtain a satisfactory score on a Los Rios Math Competency Test.
      d. Possession of a BA/BS or higher from a *regionally accredited college in the U.S.
## ARC general education requirements 2008-2009

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

### II. Language & Rationality – Two courses (6 units minimum):
- a. One course from the following (3 units minimum)
  - BUS 310; ENGWR 103, 300, 480; ESLW 340*
  - b. One additional course from the following (3 units minimum)
  - ANTH 341*, AT 105; BUS 305; CISA 305, 315, 320; CISC 300*; CISP 315, 320, 350, 360, 400, 440; ET 310, 311; ENGCW 400, 430; ENGRD 310, 312; ENGWR 301, 302, 330, 481, 482; ESL 350; GEOG 330, 375; JOUR 300; MGMT 120, 300, 310, 320*, 325, 330, 340, 342, 344, 350, 370, 400; PHIL 320, 325*; PSYC 330; SPEECH 305; TA 300, 302, 303, 306*, 310, 312, 314, 315, 318*, 320, 350, 406, 435, 480

### III. Living Skills – (3 units minimum):
- a. One Physical Education activity course with one of the following prefixes:
  - ADAPT, DANCE, FITNS, PACT, TMACT, SPORT
- b. Minimum of 2 units from the following:
  - AT 107; BIOT 308; BUS 320*; CISC 300*; ECE 330, 350*; ECON 320*; ENGED 320, 324*; ET 250; GERON 300*, 330*, 334*; HCD 310, 318, 330, 331, 336; HEED 300, 352*; HIST 399*; HSER 340*; INDIS 325; LIBR 310, 318, 325; MATH 315; NUTRI 300*, 302*, 305; PSYC 340, 342, 354, 356, 358, 359*, 370*, 378*, 379*, 390, 400*, 481; SOC 335*; SPEECH 321; WELD 150; all ARC courses numbered 198, 248 & 498

### IV. Natural Science – One course from the following (3 units minimum):
- ANTH 300, 301, 303, 480; ASTR 300, 310, 320, 330, 400; BIOL 102, 115, 116, 300, 303, 305, 310, 350, 352, 370, 400, 430, 431, 482; CHEM 305, 309, 310, 325, 334, 400; GEOG 300, 301, 306, 307, 308; GEOI 300, 301, 305, 310, 325, 330, 342, 345; HORT 300; NATR 300, 302, 304, 320, 332; NUTRI 300*, 302*; PHYS 310, 311, 312, 350, 410; PS 300, 301; PSYC 310, 311

### V. Social & Behavioral Sciences – (6 units minimum):
- a. AMERICAN INSTITUTIONS: One course from the following (3 units minimum)
  - HIST 310, 311, 318, 329*, 32I*, 323*, 325*, 327, 330*, 483, 484; POLS 301;
- b. SOCIAL/BEHAVIORAL SCIENCES: One additional course from the following (3 units minimum)

### VI. Ethnic/Multicultural Studies – (3 units minimum)

**Note:**
- * Courses appearing in more than one category may be used to satisfy only one category.
- ** Courses are cross-numbered in two subject areas and may count in only one area.
- *** These multicultural courses can also satisfy general education category requirements.

*Required major courses taken in excess of 18 units may be used to satisfy both major and general education requirements, provided they are among the general education courses listed above.*
student learning outcomes
(General Education)

I. Humanities
At the completion of the Humanities general education requirement, the student will be able to:
• Identify values of a culture as expressed through its art or language; or
• Employ concepts or theories of a subfield of the humanities to analyze and evaluate works produced within that subfield; or
• Analyze and interpret events or artistic/linguistic works in light of historical forces/patterns; or
• Assess works produced within a subfield of the humanities as critical commentaries of culture.

II. Language and Rationality
At the completion of the English Composition portion of the Language and Rationality general education requirement, the student will be able to:
• Demonstrate effective expository and persuasive writing skills using the rules of standard written English in a written assignment of at least 1,000 words.
• Employ an academically recognized format (e.g., Modern Language Association, American Psychological Association, etc.) in a research paper.
• Revise, proofread and edit written work.

At the completion of the Communication and Analytical Thinking portion of the Language and Rationality general education requirement, the student will be able to:
• Organize and analyze information relevant to a problem or issue.
• Develop and interpret a conceptual, visual, oral or physical representation of a problem or issue.
• Develop a reasoned solution to a problem.
• Defend a position or explain a solution, using appropriate language and/or notation.
• Evaluate arguments, algorithms and/or solutions.
• Apply learned problem-solving skills to new situations.
• Distinguish the form of an argument from its content.

III. Living Skills
At the completion of the Living Skills general education requirement, the student will be able to:
• Identify and apply skills and knowledge necessary to function capably as an individual within society to achieve academic, career, and/or personal success as a lifelong learner.
• Formulate and monitor progress toward achieving well-defined goals that lead to one’s personal, social, physical, and emotional well-being through the process of on-going self-evaluation, personal awareness and self-motivation.
• Demonstrate personal management skills such as planning, time management, coping with anxiety, and the ability to work cooperatively with others.
• Recognize and explain the relationships between the social and physical environment with regards to human behavior, relationships, sexuality, nutrition, physical fitness, health, and stress management.
• Apply successful techniques for exploring and/or resolving conflicts and dealing with differences in a variety of settings.

IV. Natural Science
At the completion of the Natural Science general education requirement, the student will be able to:
• Evaluate new and accepted ideas about the natural universe using testable methodology.
• Articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
• Sort, arrange, and quantify objects using the international system of measurement (metric) as the standard.
• Recall basic definitions and fundamental theories of an introductory natural science.
• Analyze a wide variety of natural phenomena using basic definitions and fundamental theories of an introductory natural science.
• Apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
• Recognize ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

V. Social and Behavioral Sciences
a. American Institutions:
At the completion of the American Institutions portion of the Social and Behavioral Science general education requirement, the student will be able to:
• Critique the constitutions of the United States and California, and other founding documents.
• Analyze the relationships of individuals, groups, and societies at the federal, state and local levels, including conflict resolution and the establishment of governing processes.
• Evaluate significant events in the entire area now included in the United States of America, including historical and ongoing influences of social, cultural, and economic groups, and regions they inhabit.
• Assess the influence of the aforementioned groups on domestic and foreign affairs within a framework of politics, economics, social movements, and geography.
b. Social/Behavioral Sciences:
At the completion of the Introductory Methods portion of the Social and Behavioral Science general education requirement, the student will be able to:
- Differentiate and evaluate the methods of inquiry and evidence used in the behavioral and social sciences.
- Critically assess the dynamic interaction between individuals and societies, and compare the functioning of subgroups within and between different societies.

VI. Ethnic/Multicultural Studies
At the completion of the Ethnic/Multicultural Studies general education requirement, the student will be able to:
- Examine one’s own culture from a removed perspective.
- Examine various cultures/ethnicities through the authentic voices/perspectives of those same cultures.
- Investigate how several cultural/ethnic groups have interacted through time.
- Analyze how the concepts of ethnicity, ethnocentrism, and racism shape and explain ethnic experience.
- Synthesize 1 & 2 into an appraisal of one’s own identity within local cultural contexts.

prerequisites, corequisites & 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. The definitions for prerequisites, corequisites and advisories are:
a) “Prerequisite” means a course that a student is required to take and pass in order to demonstrate readiness for enrollment in another course or educational program.
b) “Corequisite” means a course that a student is required to take in the same session as another course.
c) “Advisory on recommended preparation” means that a student is advised, but not required, to take a specific course before or in conjunction with enrollment in another course or educational program.

Prerequisite verification
Students enrolled in courses that have a prerequisite will be asked to provide verification to the instructor that they have met the prerequisite. Verification can consist of a counselor verification form or student copy of a grade report (unofficial transcript.) Corequisite verification requires a student registration printout. Students should bring verification with them to the first class meeting. Students trying to add a class that is full need to provide verification before the instructor will issue a permission number for enrollment. It is the student’s responsibility to verify that he or she has completed the prerequisite or has the required skills.

Prerequisite challenge procedure
Students who do not meet a prerequisite should seek counseling advice for making an appropriate course selection, prior to enrolling in Associate degree credit 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, or the Counseling Center. 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.
Accounting Degree

The Accounting degree focuses on preparation for careers in various accounting professions. The program develops a common foundation in accounting and business, and provides various courses covering both fundamental and specialized accounting topics to meet individual career goals.

Career Opportunities

The Accounting degree is designed for a variety of student objectives. The degree includes courses required for immediate employment in accounting positions. Also, these courses meet the requirements of governmental employers for promotional exams. Students seeking transfer to four 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 42 Units

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 103</td>
<td>Intermediate Accounting - Part I</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 104</td>
<td>Intermediate Accounting - Part II</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 107</td>
<td>Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 111</td>
<td>Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 301</td>
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<td>4</td>
</tr>
<tr>
<td>ACCT 311</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Business Economics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 8 units from the following:</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>ACCT 108</td>
<td>Careers in Accounting (1)</td>
<td></td>
</tr>
<tr>
<td>ACCT 109</td>
<td>Professional Ethics for Accountants (1)</td>
<td></td>
</tr>
<tr>
<td>ACCT 121</td>
<td>Payroll Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT 125</td>
<td>Federal and State Taxation (4)</td>
<td></td>
</tr>
<tr>
<td>ACCT 128</td>
<td>Taxation of Corporations, Partnerships, Estates, and Trusts (4)</td>
<td></td>
</tr>
<tr>
<td>ACCT 153</td>
<td>Governmental Accounting (3)</td>
<td></td>
</tr>
<tr>
<td>ACCT 341</td>
<td>Accounting on the Microcomputer (2)</td>
<td></td>
</tr>
<tr>
<td>ACCT 343</td>
<td>Computer Spreadsheet Applications for Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT 498</td>
<td>Work Experience</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 8 units from the following:</td>
<td>8</td>
<td></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

The Accounting certificate provides occupational training and preparation for entry level clerical and technical positions in various accounting careers. The program provides a strong background in fundamental accounting concepts and typical accounting computer applications. In addition, the program provides various specialized accounting topics to meet career individual goals.

Requirements for Certificate 27 Units

<table>
<thead>
<tr>
<th>Course Code</th>
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<td></td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>ACCT 103</td>
<td>Intermediate Accounting - Part I (4)</td>
<td></td>
</tr>
<tr>
<td>ACCT 104</td>
<td>Intermediate Accounting - Part II (4)</td>
<td></td>
</tr>
<tr>
<td>ACCT 107</td>
<td>Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 108</td>
<td>Careers in Accounting (1)</td>
<td></td>
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<td>ACCT 109</td>
<td>Professional Ethics for Accountants (1)</td>
<td></td>
</tr>
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<td>ACCT 111</td>
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</table>

Career Opportunities

The Accounting certificate includes courses required for immediate employment in accounting positions. Also, these 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 Certificate 27 Units

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<td>Business Mathematics</td>
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<td>ACCT 107</td>
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<tr>
<td>ACCT 108</td>
<td>Careers in Accounting (1)</td>
<td></td>
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</tr>
</tbody>
</table>

Accounting Clerk Certificate

The Accounting Clerk 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.

Requirements for Certificate 18 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting</td>
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</tr>
<tr>
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<tr>
<td>ACCT 341</td>
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<tr>
<td>ACCT 343</td>
<td>Computer Spreadsheet Applications for Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT 498</td>
<td>Work Experience in Accounting (1 - 4)</td>
<td></td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>A minimum of 2 units from the following:</td>
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<td></td>
</tr>
<tr>
<td>ACCT 108</td>
<td>Careers in Accounting (1)</td>
<td></td>
</tr>
<tr>
<td>ACCT 343</td>
<td>Computer Spreadsheet Applications for Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT 498</td>
<td>Work Experience in Accounting (1 - 4)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing (1 - 3)</td>
<td></td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing (2)</td>
<td>3</td>
</tr>
</tbody>
</table>
**Taxation Certificate**

The Taxation certificate is designed to provide occupational training and continuing education in the areas of tax preparation and consulting. Courses in this program provide a background in personal, corporate, partnership, and estate taxes, as well as work experience in the field of taxation. Practical experience is obtained through required participation in the Volunteer Income Tax Assistance (VITA) program.

**Requirements for Certificate** 13 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 125</td>
<td>Federal and State Taxation</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 128</td>
<td>Taxation of Corporations, Partnerships, Estates, and Trusts</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
</tbody>
</table>

And a minimum of 1 unit from the following: ........................................ 1

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ACCT 498</td>
<td>Work Experience in Accounting (1-4)</td>
<td></td>
</tr>
<tr>
<td>BUS 498</td>
<td>Work Experience in Business (1-4)</td>
<td></td>
</tr>
<tr>
<td>WEXP 498</td>
<td>Work Experience in (subject) (1-4)</td>
<td></td>
</tr>
<tr>
<td>ACCT 127</td>
<td>Volunteer Income Tax Assistance (VITA)</td>
<td></td>
</tr>
</tbody>
</table>

1Enrollment in ACCT 498, BUS 498, or WEXP 498 with income tax work experience may be substituted with approval of the VITA coordinator.

**ACCT 101 Fundamentals of College Accounting** 3 Units

Advisory: BUS 105 or MATH 100, and ENGW 102 or 103, and ENGRD 116 or ESLR 520 and ESWL 520.

Hours: 54 hours LEC

This is a beginning accounting course that emphasizes small business applications. It covers the accounting cycle for a service business and for a merchandising business. The general journal, special journals, the general ledger, and subsidiary ledgers are covered: the preparation of adjustments and worksheet, closing entries, correcting entries, financial statements, bank statement reconciliation, and payroll; and calculations for interest, sales discounts, purchases discounts, sales taxes, and payroll taxes.

**ACCT 103 Intermediate Accounting - Part I** 4 Units

Prerequisite: ACCT 301 with a grade of “C” or better.

Hours: 72 hours LEC

This course continues the study and evaluation of financial statements with emphasis on cash flows, receivables, liabilities, inventory, and long-term assets. This course is typically offered in the Fall semester only.

**ACCT 104 Intermediate Accounting - Part II** 4 Units

Prerequisite: ACCT 301 with a grade of “C” or better.

Advisory: ACCT 103.

Hours: 72 hours LEC

This course continues the study and evaluation of financial statements with emphasis on long-term assets, equity, income tax, and financial statement evaluation. This course is typically offered in the Spring semester only.

**ACCT 107 Auditing** 3 Units

Prerequisite: ACCT 301 with a grade of “C” or better.

Advisory: ACCT 103 and 104.

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), audit planning and methodology, ethics, and legal issues. This course is typically offered Fall semester only.

**ACCT 108 Careers in Accounting** 1 Unit

Hours: 18 hours LEC

This course covers the role of the accountant in today’s business environment, the different jobs accountants do, and the types of employment opportunities available for accountants in public accounting, private, for-profit accounting, private, non-profit accounting, and governmental accounting. Topics include the outlook for careers in accounting, what employers look for in employees, what employers look for in accountants, how people prepare to become accountants, and the designations/licenses for accountants in various areas of the profession.

**ACCT 109 Professional Ethics for Accountants** 1 Unit

Prerequisite: ACCT 301 with a grade of “C” or better.

Advisory: ACCT 107.

Hours: 18 hours LEC

This course provides a framework for ethics in the accounting profession. Topics include ethics of accountants, auditors, and organizations, including ethical expectations, professional responsibilities, and ethical decision making. The course emphasizes the California Accountancy Act, including the impact of statutes, regulations, and cases on current practice situations. The provisions of the American Institute of Certified Public Accountants (AICPA) Code of Professional Conduct are reviewed and examined through rulings and cases. High-profile cases, including Enron, and other ethical lapses are evaluated. Codes of conduct from the Institute of Management Accountants and Institute of Internal Auditors are reviewed, evaluated, and compared to those of the AICPA.

**ACCT 111 Cost Accounting** 3 Units

Prerequisite: ACCT 311 with a grade of “C” or better.

Hours: 54 hours LEC

This course is a continuation of managerial and cost accounting systems. Emphasis is placed on the development of quantitative information needed by managers for analyzing, planning, operating, and controlling manufacturing and service related businesses. This course is usually offered Spring semester only.

**ACCT 121 Payroll Accounting** 3 Units

Prerequisite: ACCT 101 with a grade of “C” or better.

Advisory: CISA 315.

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 Taxation** 4 Units

Prerequisite: ACCT 301 with a grade of “C” or better.

Hours: 72 hours LEC

This course covers federal and California tax regulations pertaining to individual returns. Topics include filing of returns, income and adjustments, itemized deductions, and gains and losses. This course has been approved by the California Tax Education Council.

**ACCT 127 Volunteer Income Tax Assistance (VITA)** 2 Units

Corequisite: ACCT 125

Hours: 24 hours LEC; 36 hours LAB

This course prepares students to qualify as tax preparers and conduct and manage a Volunteer Income Tax Assistance (VITA) program recognized by the Internal Revenue Service (IRS). Students assist taxpayer-clients in the preparation and electronic filing of both federal and California income tax returns.
ACCT 128  Taxation of Corporations, Partnerships, Estates, and Trusts  4 Units
Prerequisite: ACCT 125 with a grade of “C” or better.
Hours: 72 hours LEC
This course provides a continuing study of federal and state income tax compliance with an emphasis on the taxation of business entities including corporations, partnerships, limited liability companies, S-corporations, estates and fiduciary trusts. Topics include related party transactions, filing requirements, differences in book and taxable income, tax computation, available credits, tax elections, and working with the Internal Revenue Service on tax administration matters.

ACCT 141  Quick Books (R) for Small Business  1 Unit
Same As: BUS 230.
Advisory: ENGWR 102 or 103 or ESLR 320 and ESLW 320; BUS 350.
Hours: 18 hours LEC
This course will emphasize the use of Quick Books (R) to aid the small business operator in creating financial statements and other financial reports. Not open to students who have taken BUS 230.

ACCT 153  Governmental Accounting  3 Units
Prerequisite: ACCT 301 with a grade of “C” or better.
Hours: 54 hours LEC
This course covers accounting and financial reporting for governmental units and institutions with emphasis on the accounting standards prescribed by the Governmental Accounting Standards Board (GASB). Additional topics include governmental budgeting and budgetary controls. This course is typically offered Spring semester only.

ACCT 301  Financial Accounting  4 Units
Advisory: ACCT 101; ENGWR 102 or 103 and ENGRD 116 or ESLR 320 and ESLW 320; MATH 100 or BUS 105.
General Education: TCSU BUS 110
Course Transferable to UC/CSU
Hours: 72 hours LEC
Financial accounting for business administration and accounting majors covers accounting systems and preparation and interpretation of financial statements and other summary reports. It includes units in receivables and payables, inventories, depreciation, systems and controls, payroll, forms of business organization, stocks and bonds, and cash flows. Business Administration majors with an accounting concentration planning to transfer should have completed 30 units of course work prior to enrolling. (CAN BUS 2) (BUS SEQ A Sum of CAN Bus 2 and Bus 4)

ACCT 311  Managerial Accounting  4 Units
Prerequisite: ACCT 301 with a grade of “C” or better.
General Education: TCSU BUS 120
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course continues the study of accounting theory with special emphasis on the types of accounting information used by managers, sources of information, and how this information is used by managers in making business decisions. Topics include cost systems, the analysis and use of cost information, cost-volume-profit analysis, contribution margin, profit planning, standard costs, relevant costs, capital budgeting, and statement analysis. (CAN BUS 4) (BUS SEQ A Sum of CAN Bus 2 and Bus 4)

ACCT 341  Accounting on the Microcomputer  2 Units
Prerequisite: ACCT 101 or 301 with a grade of “C” or better.
Advisory: CISC 300.
Course Transferable to CSU
Hours: 27 hours LEC, 27 hours LAB
This course introduces accounting systems on the personal computer. It covers PC accounting and reporting for customer, vendor, and employee, banking, and general ledger activities. Topics include the master files, data records, and technologies of automated systems. The course compares and contrasts manual and automated accounting systems, and explores the commonalities of automated systems in general. This course may be taken twice on different software applications or versions.

ACCT 343  Computer Spreadsheet Applications for Accounting  2 Units
Prerequisite: CISA 315 with a grade of “C” or better.
Corequisite: ACCT 301.
Course Transferable to CSU
Hours: 27 hours LEC, 27 hours LAB
This course combines the study of accounting and computer spreadsheets. Projects include business transactions, accounts receivable, inventory, payroll, special journals, financial statements, financial analysis, and other accounting topics. The course focuses on accuracy, clarity, creativity, adaptability, and presentation skills.

ACCT 498  Work Experience in Accounting  1-4 Units
General Education: AA/AS Area III(b)
Enrollment Limitation: Must be enrolled in a minimum of 7 units at ARC.
Course Transferable to CSU
Hours: 18 hours LEC, 225 hours LAB
This course is supervised work experience in accounting for the purpose of practical experience in accounting careers. Students must be employed in a paid or volunteer work experience environment. This course may be taken twice for a maximum of 8 units.

FIN 310  Financial Planning - Insurance  3 Units
Advisory: BUS 320
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces risk management and insurance decisions in personal financial planning. Topics include insurance for life, health, disability, property and liability risks, as well as annuities, group insurance, and long term care.

FIN 320  Financial Planning - Investments  3 Units
Advisory: BUS 320
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces investment planning in the personal financial planning process. The course covers the various types of securities traded in financial markets, investment theory and practice, portfolio construction and management, and investment strategies and tactics.

FIN 330  Financial Planning - Retirement Planning  3 Units
Advisory: BUS 320
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces retirement planning in the personal financial planning process. The course provides an understanding of public and private retirement plans. The public plans include Social Security, Medicare and Medicaid. The private plans include defined benefit and defined contribution plans and their regulatory provisions. Additional topics include the issues that individuals face in retirement such as life-style choices and medical issues.
FIN 350  Financial Planning - Estate planning  3 Units
Advisory: BUS 320
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on the efficient conservation and transfer of wealth, consistent with the individual's goals. The legal, tax, financial and non-financial aspects of estate planning are covered, including trusts, wills, probate, advanced directives, charitable giving, wealth transfers and related taxes.

FIN 380  Financial Planning - The Comprehensive Financial Plan  2 Units
Prerequisite: ACCT 125, FIN 310, FIN 320, FIN 330, and FIN 350 with grades of "C" or better
Advisory: CISC 300
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This is a capstone course in financial planning for individuals. Skills and knowledge from all previous courses in individual financial planning are utilized to develop a comprehensive financial plan for an individual or family. The end product of the course is a comprehensive financial plan prepared using financial planning software.
### Anthropology Degree

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.

### Career Opportunities

The anthropology major may enter many vocations varying 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 300</td>
<td>Physical Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH 480</td>
<td>Honors Physical Anthropology</td>
<td>3</td>
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<td>ANTH 301</td>
<td>Physical Anthropology Laboratory</td>
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<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 320</td>
<td>Introduction to Archaeology and World Prehistory</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 8 units from the following:</td>
<td></td>
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<tr>
<td>ANTH 311</td>
<td>Cultural Anthropology Discussion</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 312</td>
<td>Anthropology of Gender</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 315</td>
<td>Cultures in Focus</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 330</td>
<td>Magic, Witchcraft, and Religion</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 333</td>
<td>American Indians of California</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 334</td>
<td>Native Peoples of North America</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 335</td>
<td>Research Methods in Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 341</td>
<td>Introduction to Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 370</td>
<td>Primatology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 372</td>
<td>Primatology Field Studies</td>
<td>2</td>
</tr>
<tr>
<td>ANTH 494</td>
<td>Topics in Anthropology</td>
<td>1-4</td>
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</table>

1A maximum of 2 units only from ANTH 494 may be taken.

### 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.

### ANTH 301 Physical Anthropology Laboratory 1 Unit

**Pre-Requisite: ANTH 300**

**General Education:** AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B

**Course Transferable to UC/CSU**

**Hours:** 54 hours LAB

This course is an introductory laboratory designed to provide opportunities to become familiar with the methods of the science of biological anthropology while investigating topics in laboratory and field situations. Topics covered in the course are: the scientific method, sources of biological variation and forces of evolution, human osteology, human variation, taxonomy and comparative osteology of the primates, and the fossil evidence for human evolution. Field trip may be required.

### ANTH 303 Introduction to Forensic Anthropology 3 Units

**Pre-Requisite:** ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process. ANTH 300 and 301; OR BIOL 102; OR BIOL 115 and 117; OR BIOL 430.

**General Education:** AA/AS Area IV

**Course Transferable to UC/CSU**

**Hours:** 54 hours LEC

This course is an overview of forensic anthropology which is an applied field of physical anthropology. Forensic anthropology uses the analysis of human skeletal remains to answer medico-legal questions. This course emphasizes current techniques used in analysis of human skeletal remains, medico-legal 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

**Pre-Requisite:** ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.

**General Education:** AA/AS Area IV; 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 organizations in both Western and non-Western societies. Multicultural perspectives are examined for such topics including subsistence methods, belief and religious system, linguistics, trade and economic systems, arts, kinship systems, marriage and family systems, technology, and changes due to internal and external forces.

### ANTH 311 Cultural Anthropology Discussion 1 Unit

**Pre-Requisite:** ANTH 310.

**Course Transferable to CSU**

**Hours:** 18 hours LEC

This course provides opportunities to discuss issues relevant to cultural anthropology and explore non-western cultures using the anthropological literature. The applicability of terms such as “ethnocentrism” and “cultural relativity” is examined.
ANTH 312  Anthropology of Gender  1 Unit
Advisory: ANTH 310.
Course Transferable to CSU
Hours: 18 hours LEC
This course examines the contributions of anthropologists to the field of gender studies. The course deals with topics relevant to gender issues from a cross-cultural perspective. Gender issues are studied as they relate to family, social groups, and the concept of "self".

ANTH 315  Cultures in Focus  3 Units
Advisory: ENGW 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.
General Education: AA/AS Area V(b) and VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides information regarding development issues in emerging countries of the world. The course examines the historical and cultural context of development and diversity in pluralistic societies. Globalization and technological changes are examined as they influence ideological aspects of culture. Problems such as overpopulation, underemployment, famine, and women's issues, are discussed within their cultural context.

ANTH 320  Introduction to Archaeology and World Prehistory  3 Units
Advisory: ENGW 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.
General Education: AA/AS Area V(b); CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course 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 is emphasized. The challenges and achievements of non-literate and traditional cultures, diverse communities, and social classes over time are also explored.

ANTH 330  Magic, Witchcraft, and Religion  3 Units
Advisory: ENGW 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.
General Education: AA/AS Area V(b) and Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a cross-cultural study of the forms and functions of supernatural beliefs and associated rituals in traditional societies of Africa, Asia, aboriginal Australia, Oceania, South America, Native North America and elsewhere. Attention is also given to world religions. Emphasis is on understanding the role of beliefs and rituals within their given social contexts, as well as on a broader comparison to derive insight into the general functions of beliefs and rituals in human life.

ANTH 333  American Indians of California  3 Units
Advisory: ENGW 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.
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
This course surveys the sociocultural systems of California Indians from the prehistoric period to 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.

ANTH 334  Native Peoples of North America  3 Units
Advisory: ENGW 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.
General Education: AA/AS Area V(b) and 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.
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces research methods for the field of anthropology. Familiarization with specific observational research methods and the practical application of these methods in a contemporary setting is emphasized. Field trips will be required.

ANTH 341  Introduction to Linguistics  3 Units
Advisory: ENGW 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.
General Education: AA/AS Area V(b) and Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the role of language in social interaction and world view construction. In addition, it examines minority languages and dialects, bilingualism, literacy, and the social motivation of language change. Analytical techniques of socio-cultural linguistics are examined.

ANTH 370  Primatology  3 Units
Advisory: ANTH 300.
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an analysis of non-human primate comparative morphology, behavior, and ecology. Areas of study include general primate morphology from teeth to toes, diet and ecology, social behavior including reproduction and social systems, cognition and intelligence, and primate conservation issues. Primates in both captive and free-ranging settings will be examined. Field trips for primatological observations will be required.

ANTH 372  Primatology Field Studies  2 Units
Advisory: ANTH 300.
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 studies may focus on the ChimpanZoo Program under the Jane Goodall Institute. Field trips will be required.
ANTH 480  Honors Physical Anthropology  3 Units  
Prerequisite: Cumulative GPA of 3.0 or above; ENGWR 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 is an in depth introduction to the science of physical anthropology. This seminar style honors course approaches the topical material through class discussion which encourages problem solving techniques focusing on current anthropological issues. Weekly topical issues will be presented in a case study format. Critical thinking skills are emphasized in responding to these issues. The following topics are included in the course: evolutionary theory, heredity, human variation, taxonomy and behavior of the living primate and the fossil evidence of human evolution.

ANTH 494  Topics in Anthropology  1-3 Units  
Advisory: ENGWR 102 or 103, ENGRD 116 or ESLR 320, ESLW 320.  
Course Transferable to CSU  
Hours: 54 hours LEC  
Concentrated study of current anthropological issues. Topics will reflect contemporary issues and problems in the areas of cultural and physical anthropology, as well as in archaeology. Issues in the area of physical anthropology will be approached from a biological and ecological perspective; issues in cultural anthropology and archaeology will be approached from a multi-cultural and international platform. Course may be repeated for a maximum of 6 units.
American River College conducts, in cooperation with the local construction unions, a number of apprenticeship programs (most of which can lead to an Associates of Arts degree). An apprenticeship program is a formal system of occupational training from two to five years that combines paid employment, on-the-job training and job related college level instruction in order to develop highly skilled workers.

Apprenticeship programs are a cooperative effort between the Joint Apprenticeship Training Committee (JATC) and the college. The JATC is composed of representatives from both labor and management from each apprenticeship area and their purpose is to oversee apprenticeship training. All American River College apprenticeship programs are approved by the Division of Apprenticeship Standards of the California Department of Industrial Relations.

Enrollment in an apprenticeship course is limited to registered apprentices, however anyone meeting the apprenticeship requirements can apply for acceptance (Apprenticeship 100 is open to everyone without prerequisites). Information on admission to apprenticeship programs can be obtained from the local JATC having jurisdiction over the trade in which you are interested. Listed below are the program types and contact persons.

**Carpenter Apprenticeship**

The Carpenter 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, blueprint reading, residential and commercial construction processes, building codes, estimation, and various carpentry topics.

**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.

For more information, contact:

Program Director
8000 Chadbourne Rd, Suite A
Fairfield, CA 95485
(707) 399-2880

**Requirements Degree or Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>CARPT 100</td>
<td>Introduction to Carpentry</td>
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<tr>
<td>CARPT 102</td>
<td>Worker Safety and Tool Skills</td>
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<tr>
<td>CARPT 104</td>
<td>The Apprentice and the Trade</td>
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<tr>
<td>CARPT 110</td>
<td>Foundations and Floors</td>
<td>1</td>
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<tr>
<td>CARPT 112</td>
<td>Structural Framing</td>
<td>1</td>
</tr>
<tr>
<td>CARPT 114</td>
<td>Form Detailing, Construction &amp; Erection</td>
<td>1</td>
</tr>
<tr>
<td>CARPT 120</td>
<td>Exterior Finish</td>
<td>1</td>
</tr>
<tr>
<td>CARPT 122</td>
<td>Interior Finish</td>
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<tr>
<td>CARPT 130</td>
<td>Layout/Leveling Construction Site Practice</td>
<td>1</td>
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<td>CARPT 140</td>
<td>Interior Systems</td>
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<td>CARPT 142</td>
<td>Engineered Structural Systems</td>
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<td>CARPT 150</td>
<td>Concrete - Precast and Prestressed</td>
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<td>CARPT 160</td>
<td>Blueprint Reading-Residential</td>
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<td>CARPT 162</td>
<td>Blueprint Reading-Commercial</td>
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<td>CARPT 170</td>
<td>Roof Framing</td>
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<td>CARPT 180</td>
<td>Stair Building</td>
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<tr>
<td>CARPT 190</td>
<td>Introduction to Welding and Cutting</td>
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<tr>
<td>CARPT 200</td>
<td>Construction Mathematics &amp; Introduction to Working Drawing</td>
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</table>

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**

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.

**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
4421 Pell Drive #B
Sacramento, CA 95838
1-888-315-3098

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<tr>
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<td>DRLTH 102 Basic Applications</td>
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<td>DRLTH 105 Mathematics for Drywall/Lathers</td>
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<td>DRLTH 110 Residential Metal Framing</td>
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<td>DRLTH 112 Doors, Windows, Exterior Systems/Building Documents</td>
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<td>DRLTH 120 Blueprint Reading I</td>
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<tr>
<td>DRLTH 122 Blueprint Reading III</td>
<td>1.5</td>
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<tr>
<td>DRLTH 130 Welding I</td>
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<tr>
<td>DRLTH 131 Welding II</td>
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<tr>
<td>DRLTH 140 Exterior/Advanced Fire Control System and Partitions</td>
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<tr>
<td>DRLTH 142 Exterior Systems and Trims</td>
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<td>DRLTH 150 Interior Metal Lathing System, Sound Control</td>
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<td>DRLTH 160 Ceilings, Shaft Protection and Demountable Partitions</td>
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<tr>
<td>DRLTH 162 Arches, Furring and Advanced Systems</td>
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<tr>
<td>DRLTH 170 Advanced Construction Techniques</td>
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</table>

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**

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.

**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

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<th>Requirements for Degree or Certificate</th>
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<td>ELECT 140 Electrical Apprenticeship VII</td>
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<td>ELECT 141 Electrical Apprenticeship VIII</td>
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<tr>
<td>ELECT 151 Electrical Apprenticeship X</td>
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And a minimum of 16 units from the following: ........................................ 16

ELECT 298 Work Experience in Electricians Apprenticeship

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.

**Electrical Sound and Communications Apprenticeship**

This is a three-year construction trade program.

For more information contact:
Program Director
2836 El Centro Rd.
Sacramento, CA 95833
(916) 646-6688

<table>
<thead>
<tr>
<th>Requirements for Degree or Certificate</th>
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<td>ELSC 110 Electrical Sound &amp; Communication Apprenticeship III</td>
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<td>ELSC 120 Electrical Sound &amp; Communication Apprenticeship V</td>
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<td>ELSC 121 Electrical Sound &amp; Communication Apprenticeship VI</td>
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Associate Degree Requirements: The Electrical Sound and Communications 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.

**Residential/Commercial Electrician Trainee Certificate**

The Residential/Commercial Electrician program provides instruction in the installation, operation, and maintenance of the electrical distribution systems in residential and commercial sites. Topics include safety training, AC/DC electrical theory, metering, electronics, use of electrical codes, raceways, conductors, grounding, motors, transformers, fire alarm systems, fiber optics, and HVAC systems. The program complies with state regulations to become an Electrician Trainee.

**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.

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<tr>
<th>Requirements for Certificate</th>
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<tr>
<td>ELECT 220 Electrician Trainee III</td>
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<td>ELECT 221 Electrician Trainee IV</td>
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<tr>
<td>ELECT 230 Electrician Trainee V</td>
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</tr>
<tr>
<td>ELECT 280 Electrical Workers State Certification Preparation</td>
<td>4.5</td>
</tr>
</tbody>
</table>
Ironworker Apprenticeship

The Ironworker Apprenticeship Program has training for Field Ironworkers and Reinforcing Ironworkers. Training is provided in major ironworker components to Division of Apprenticeship Standards (DAS) guidelines.

For more information contact:
Program Director
3524 Silica Ave
Sacramento, CA 95823
(916) 428-7420

Requirements for Degree or Certificate  41-41.5 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IW 100</td>
<td>Orientation and History of the Trade</td>
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<tr>
<td>IW 110</td>
<td>Mixed Base</td>
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</tr>
<tr>
<td>IW 120</td>
<td>Rigging</td>
<td>1.5</td>
</tr>
<tr>
<td>IW 130</td>
<td>Reinforcing I</td>
<td>1.5</td>
</tr>
<tr>
<td>IW 131</td>
<td>Reinforcing II/Post Tensioning</td>
<td>1.5</td>
</tr>
<tr>
<td>IW 140</td>
<td>Precast Concrete and Metal Buildings</td>
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</tr>
<tr>
<td>IW 150</td>
<td>Welding I</td>
<td>1.5</td>
</tr>
<tr>
<td>IW 151</td>
<td>Welding II</td>
<td>1.5</td>
</tr>
<tr>
<td>IW 152</td>
<td>Welding III</td>
<td>1.5</td>
</tr>
<tr>
<td>IW 160</td>
<td>Lead Hazard</td>
<td>1.5</td>
</tr>
<tr>
<td>IW 170</td>
<td>Structural I</td>
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</tr>
<tr>
<td>IW 171</td>
<td>Structural II</td>
<td>1.5</td>
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<tr>
<td>IW 180</td>
<td>Architectural/Ornamental I</td>
<td>1.5</td>
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<tr>
<td>IW 181</td>
<td>Architectural/Ornamental II (1.5)</td>
<td>1.5-2</td>
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<tr>
<td>or IW 184</td>
<td>Detailing I (2)</td>
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<tr>
<td>or IW 185</td>
<td>Detailing II (1.5)</td>
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</tr>
<tr>
<td>IW 182</td>
<td>Architectural/Ornamental III (1.5)</td>
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<tr>
<td>IW 183</td>
<td>The History of Ironworkers</td>
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And a minimum of 16 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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<tbody>
<tr>
<td>IW 298</td>
<td>Work Experience in Ironworkers Apprenticeship</td>
<td>4</td>
</tr>
</tbody>
</table>

Associate Degree Requirements: The Ironworker 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 Apprenticeship

This is a five-year construction trade program.

For more information contact:
Program Director
1624 Silica Avenue
Sacramento, CA 95815
(916) 922-9381

Requirements for Degree or Certificate  38 Units

<table>
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<tr>
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<tr>
<td>SHME 101</td>
<td>Sheet Metal Apprenticeship II</td>
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</tr>
<tr>
<td>SHME 110</td>
<td>Sheet Metal Apprenticeship III</td>
<td>3.3</td>
</tr>
<tr>
<td>SHME 111</td>
<td>Sheet Metal Apprenticeship IV</td>
<td>3.3</td>
</tr>
<tr>
<td>SHME 120</td>
<td>Sheet Metal Apprenticeship V</td>
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</tr>
<tr>
<td>SHME 121</td>
<td>Sheet Metal Apprenticeship VI</td>
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<tr>
<td>SHME 130</td>
<td>Sheet Metal Apprenticeship VII</td>
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</tr>
<tr>
<td>SHME 131</td>
<td>Sheet Metal Apprenticeship VIII</td>
<td>3.3</td>
</tr>
<tr>
<td>SHME 140</td>
<td>Sheet Metal Apprenticeship IX</td>
<td>3.3</td>
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<td>SHME 141</td>
<td>Sheet Metal Apprenticeship X</td>
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<td>SHME 150</td>
<td>Sheet Metal Welding I</td>
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<tr>
<td>SHME 151</td>
<td>Sheet Metal Welding II</td>
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</table>

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.
Art Degree

The A.A. degree in Art provides a foundation in art principles and practices. Course work includes study in art history and studio practice in the creation of two and three-dimensional works of art. The Art degree is designed for students who wish to transfer to a four-year university or college, and for students who are interested in furthering skills in the visual arts.

Requirements for Degree 30 Units

ART 300 Elementary Drawing and Composition 3
ART 320 Design: Fundamentals 3
ART 370 Three Dimensional Design 3
ART 302 Art: Stone Age Through the Middle Ages 3
ARTH 308 Renaissance Tradition in Art 3
ART 310 Modern Art 3
And a minimum of 15 units from the following: 15
ART 302 Elementary Drawing and Composition 3
ART 304 Figure Drawing and Composition 3
ART 305 Figure Drawing and Composition 3
ART 306 Facial Expression and Anatomy 3
ART 314 Introduction to Illustration 3
ART 322 Design: Image and Content 3
ART 323 Design: Color Theory 3
ART 324 Collage and Assemblage 3
ART 327 Painting 3
ART 328 Painting 3
ART 329 Painting II 4
ART 336 Watercolor Painting 3
ART 337 Intermediate Watercolor Painting 3
ART 361 Printmaking: Survey 3
ART 371 Foundry Casting for Sculpture 3
ART 372 Sculpture 3
ART 373 Sculpture 3
ART 375 Figure Sculpture 3
ART 382 Metal Design: Emphasis in Mixed Media 3
ART 383 Metal Design: Emphasis in Fabrication 3
ART 384 Metal Design: Emphasis in Casting 3
ART 390 Ceramics 3
ART 391 Intermediate Ceramics 3
ART 398 Ceramic Murals and Tiles 3
ART 420 Film Making 2
ART 422 Film Making 3
ART 430 Art and Children 3
ART 432 Art for Children Practicum 2 - 4
ART 440 Artists’ Materials and Techniques 3
ART 442 Art Gallery Operations 2
ART 444 Art Gallery and Portfolio Preparation 3
ARTH 300 Introduction to 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 483 Honors Art History of the Non-Western World 1
ARTPH 300 Basic Art Photography 3
ARTPH 305 Digital Photography 3
ARTPH 310 Intermediate Photography 3

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 120 Introduction to Metal Fabrication and Sculpture .5-3 Units
Same As: WELD 104
Hours: 36 hours LEC; 54 hours LAB
This course covers metal sculpture techniques, design principles and materials used for sculpture, 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. Different artists and topics are covered each semester. ART 120 and/or WELD 104 may be taken 4 times for a total of 6 units.

ART 122 Introduction to Ornamental Iron .5-3 Units
Hours: 36 hours LEC; 108 hours LAB
This course covers the hands-on basics of metal forming, design principles and materials used for sculpture, 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. Different artists and topics are covered each semester. ART 122 may be taken 4 times for a total of 6 units.

ART 291 Topics in Art .5-4 Units
Hours: 36 hours LEC; 108 hours LAB
This course is designed to give students an opportunity to study topics in art not included in current course offerings. It may be taken four times with no duplication of topics.

ART 300 Elementary Drawing and Composition 3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a studio class in drawing and composition. Lectures and discussions stress the fundamental discipline related to the visualization of concrete or abstract concepts. Practice in drawing and development of content will be emphasized.

ART 302 Elementary Drawing and Composition 3 Units
Prerequisite: ART 300.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course will further develop the skills and concepts of drawing as introduced in Art 300. Students will continue to develop the relationship of the formal elements of line, shape, value, texture, spatial relations and color through the creative exploration of materials. Students will critically evaluate their own and others’ art work.

American River College Catalog 2008-2009
ART 304  Figure Drawing and Composition  3 Units  
Prerequisite: ART 300 with a grade of “C” or better.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This is a studio class where the understanding of human form and structure is based upon drawing from the nude figure. Topics include analysis of proportion, anatomy and the relationship of the figure to space. Projects developing compositions in which the figure is the subject for a study of line, shape, value, texture and space will be emphasized. This course may be taken twice for credit.

ART 305  Figure Drawing and Composition  3 Units  
Prerequisite: ART 304 with a grade of “C” or better.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This is a combined lecture and lab class where the human figure is studied directly and in historical context. Students will study the structure, proportion, and relationship of the nude figure to compositional space and color. Students will study great works of figurative based art and will practice subjective responses to a multitude of aesthetic theories. This course may be taken twice for credit.

ART 306  Facial Expression and Anatomy  3 Units  
Same As: ARTNM 320  
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 will be addressed through a series of 2D and 3D projects. Not open to students who have taken ARTNM 320.

ART 314  Introduction to Illustration  3 Units  
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 will survey the history of the art of illustration. The course defines areas of specialization and the illustrator’s role in visual communication. This course will evaluate the appropriate use of materials, tools and methods. Illustration will be analyzed as a method of visual problem solving through a series of projects with varied applications. Not open to students who have taken ARTNM 370.

ART 320  Design: Fundamentals  3 Units  
Same As: ARTNM 310  
Advisory: ENGWR 102 or 103, ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process  
General Education: AA/AS Area I; CSU Area C1  
Course Transferable to UC/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.

ART 322  Design: Image and Content  3 Units  
Prerequisite: ART 320 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 course will present problems in organizing the elements of design (line, shape, form, color, texture) into creative visual expressions. Emphasis is placed on the relationship between design (image) and content (ideas and feelings). Discussion and criticism of problems utilizing a variety of media will be included.

ART 323  Design: Color Theory  3 Units  
Prerequisite: ART 320 with a grade of “C” or better.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course covers studio problems in the use and understanding of color, including its application to works of art, interior design and graphics, basics of color theory and color interchange. It also includes image and composition as related to the use of color both functionally and creatively. Field trips may be required.

ART 324  Collage and Assemblage  3 Units  
Advisory: ENGWR 102 or 103, ESLR 320 or ESLW 320 or ESLW 320; OR placement through assessment process  
General Education: AA/AS Area I; CSU Area C1  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course investigates the alteration and creation of a dimensional surface with found and constructed materials. Topics on the history of collage and assemblage and the application of historical and contemporary techniques and concepts provide the impetus for production of works of art. Development of a personal visual language is fundamental to this course.

ART 327  Painting  3 Units  
Prerequisite: ART 300 or 320.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course covers the techniques and materials of oil painting. Projects are based on twentieth century painting contributions and the use of formal values as they relate to expression. This course is designed to encourage creative expression. May be taken twice for credit. (CAN ART 10)

ART 328  Painting  3 Units  
Prerequisite: ART 327 with a grade of “C” or better.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course is a continuation of ART 327. It covers artistic style, style development and general and specific criticism in painting. Different artists and topics are covered each semester. This course may be taken twice for credit. Field trips may be required.

ART 329  Painting II  3 Units  
Prerequisite: ART 327 with a grade of “C” or better.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course will survey the creative strategies of contemporary painting. Topics include post-modern ideas such as: image/text, the blending of 2D and 3D form, and combining multiple styles and techniques within a single artwork. This course may be taken twice.

ART 336  Watercolor Painting  3 Units  
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 is an introduction to the medium of transparent watercolor. It covers techniques of brush painting, traditional and contemporary approaches to composition, color relationships, and artistic style in watercolor. Different artists and topics are covered each semester. This course may be taken twice for credit.
ART 337 Intermediate Watercolor Painting 3 Units
Prerequisite: ART 336 with a grade of "C" or better.
Course Transferable to UC/CSU
Hours: 36 hours LEC, 54 hours LAB
This is an intermediate watercolor course. It includes an in-depth study of contemporary methods and concepts in transparent watercolor. Emphasis is given to different approaches to watercolor, as well as composition, technical problems, and solutions, and individual style development. Each semester different artists are discussed to illustrate concepts and techniques. Field trips may be required. This course may be taken twice.

ART 361 Printmaking: Survey 3 Units
Course Transferable to UC/CSU
Hours: 36 hours LEC, 54 hours LAB
This course covers various printmaking techniques, which may include relief printing (wood, linoleum, collagraph, and rubber), monotype, stencil (silkscreen printing), and repetitive stencil printing. Each semester different artists and/or visual examples are discussed. Field trips may be required. This course may be taken twice.

ART 370 Three Dimensional Design 3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, ESLW 320, or placement through assessment process.
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: wire, plaster, cardboard and paper. May be taken twice for credit.

ART 371 Foundry Casting for Sculpture 3 Units
Course Transferable to 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. This course may be taken four times for credit.

ART 372 Sculpture 3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, ESLW 320, or placement through assessment process.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC, 54 hours LAB
This course provides basic practice in the expressive use of form and color in three-dimensional space using traditional additive and subtractive media such as clay and plaster, as well as constructible media such as wood, found objects, and other materials. It 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.

ART 373 Sculpture 3 Units
Prerequisite: ART 372.
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, ESLW 320, or placement through assessment process.
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 and color in three-dimensional space. It utilizes traditional additive and subtractive media such as clay and plaster, as well as constructible media such as wood, found objects, and other materials. It develops the ability to process visual information and create expressive objects in three dimensions.

ART 374 Sculpture Lab 1-2 Units
Corequisite: ART 120, 122, 324, 370, 371, 372, 373, or 375
Course Transferable to UC/CSU
Hours: 108 hours LAB
This course offers laboratory experience to assist in completing complex sculpture projects. The course focuses on the development of a personal creative vision furthering technical skills and complex problem solving. It may be taken four times for credit.

ART 375 Figure Sculpture 3 Units
Advisory: ART 304.
Course Transferable to UC/CSU
Hours: 36 hours LEC, 54 hours LAB
This course introduces figure sculpture, using the live nude model as a reference. It will develop an understanding of the human form as it relates to both modern and traditional sculpture. These concepts will be developed by making studio projects using a variety of sculptural material. The projects will combine new understanding of human form with imagination, for a more complete expression of technique and creativity. May be taken twice for credit.

ART 382 Metal Design: Emphasis in Mixed Media 3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, ESLW 320, or placement through assessment process.
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course covers contemporary approaches to mixed media in small metal sculpture and jewelry. Basic small glasswork, enameling, plastics, etching, reticulation and granulation will be studied. May be taken twice for credit.

ART 383 Metal Design: Emphasis in Fabrication 3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, ESLW 320, or placement through assessment process.
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course covers historical and contemporary approaches to fabrication design. Sculptural forms will be made utilizing processes of fabricating, surfacing, soldering, forming and forging of metals. Basic methods and techniques for use with silver and base metals will be covered. May be taken twice for credit.

ART 384 Metal Design: Emphasis in Casting 3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, ESLW 320, or placement through assessment process.
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course covers historical and contemporary approaches to centrifugal casting, mold making, wax patterns, and the aesthetic aspects of metal casting for small scale sculpture and jewelry will be studied. Basic methods and techniques for wax working, kiln burnout, centrifugal casting, vulcanized rubber molds and metal finishing will be emphasized. May be taken twice for credit.

ART 385 Metal Arts Lab 1-2 Units
Corequisite: Current enrollment in ART 382 or 383 or 384.
Course Transferable to CSU
Hours: 108 hours LAB
This course offers laboratory experience to assist in completing complex metal art projects. The course focuses on the development of a personal creative vision furthering technical skills, and complex problem solving. May be taken three times.

**ART 390 Ceramics** 3 Units
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.

**ART 391 Intermediate Ceramics** 3 Units
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. This course may be taken twice for credit.

**ART 392 Ceramic Lab** 1-2 Units
Corequisite: Current enrollment in ART 390 or 391.
Course Transferable to UC/CSU
Hours: 108 hours LAB
This course offers laboratory experience to assist in completing complex ceramic projects. The course focuses on the development of a personal creative vision, furthering technical skills, and complex problem solving. May be taken twice for credit.

**ART 398 Ceramic Murals and Tiles** 3 Units
Prerequisite: ART 390 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This is a course in 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. Different artists, techniques, and projects are explored each semester. This course may be taken four times for credit.

**ART 400 Art and Children** 3 Units
Advisory: ENGW 102 or 103 and ENGRD 116 or ESLW 320, ESLL 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area I
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, movements, concepts, and techniques of creating drawings, paintings, and sculptures to inform classroom instruction with children.

**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 discussion and studio participation relating to the structural, technical and intellectual aspects of film making. Work by contemporary film makers will be used to supplement class lectures and criticism. The student choosing to make an individual film must furnish camera, film and processing. Equipment and materials are supplied for students participating in a group film.

**ART 422 Film Making** 3 Units
Prerequisite: ART 420 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 72 hours LAB
This course is a continuation of Art 29A. It is designed for the more serious filmmaking student who will be given the opportunity to explore the motion picture medium more extensively. The student choosing to make an individual film must furnish camera, film and processing. Equipment and materials are supplied for students participating in a group film.
ART 494  Topics in Art  .5-4 Units
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is designed to offer an opportunity to study topics not included in current course offerings. Practicing artisans will present hands-on workshops demonstrating their craft. Topics may include bronze casting, glass blowing, and air brush painting. This course may be taken 4 times for a maximum of 6 units.

Art History

ARTH 300  Introduction to Art  3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of the visual arts including drawing, sculpture, architecture, painting and printmaking. It offers a foundation for understanding art. Individual field trips to art galleries and museums are required.

ARTH 302  Art: Stone Age Through the Middle Ages  3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of the visual arts including drawing, sculpture and painting of the ancient Near East and Europe from the Stone Age through the Middle Ages. Art works of each period are discussed and related to respective cultures. Field trips and/or individual visitation to art galleries and museums are required.

ARTH 308  Renaissance Tradition in Art  3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a study of the architecture, sculpture and painting of the ancient Near East and Europe from the Stone Age through the Middle Ages. Art works of each major period will be discussed and analyzed and placed within an historical context.

ARTH 310  Modern Art  3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a study and discussion of the factors determining the historical evolution of the fine arts from Impressionism to the present. Examples illustrating the relationships between various schools and styles in Modern Art are shown. Field trips and/or individual visitations to art galleries and museums are required.

ARTH 322  Art History of the Non-Western World  3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320, or placement through assessment process.
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 a survey of art history in cultures throughout the non-western world. It is an introduction to the study of the architecture, sculpture and painting of the peoples of India, Africa, Asia, the Americas, the Arctic, Australia and Oceania. The time period covered is from the stone age to the eighteenth century. Field trips and/or individual visitations to art galleries and museums are required.

ARTH 333  Introduction to Islamic Art  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 studies the art and culture of Islam. It primarily focuses on Islamic art and architecture and provides fundamental information on the formation of Islamic art, its history and philosophy. It identifies works of art produced by artists from Muslim countries and regions. This course includes but is not limited to visual examples from Arabic, Persian and Indian cultures. Field trips may be required.

ARTH 334  International Contemporary Art  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 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. Social and political commentary in art are another primary focus. A field trip to a local art exhibition may be required.

ARTH 480  Honors Introduction to Art  3 Units
Prerequisite: GPA of 3.0 or above; ENGWR 300 or 480 with a grade of “C” or better
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 honors level introduction to the visual arts. Critical thinking skills will be used to analyze drawings, sculptures, paintings, architecture, and printmaking. Using a seminar style, the focus will be on developing evaluation skills and achieving a thorough understanding of the visual arts. Required field trips and/or individual visits to art galleries and museum will create a synthesis between class discussions and actual works of art.

ARTH 481  Stone Age through Middle Ages, Honors  1 Unit
Prerequisite: 3.0 cumulative GPA or better; ENGWR 300 with a grade of “C” or better or ENGWR 480 with a grade of “C” or better.
Corequisite: ARTH 302.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This honors course will more directly address specific styles of art from the Stone Age through the Middle Ages. It is an in-depth study of the art of the peoples of European and Mediterranean civilizations and cultures. Field trips and/or individual visitations to private collections, art galleries and museums are required. Weekly writing assignments.

ARTH 482  Renaissance Tradition in Art, Honors  1 Unit
Prerequisite: Cumulative GPA of 3.0 or above; ENGWR 300 or 480 with a grade of “C” or better.
Corequisite: ARTH 308.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC
This honors course, a supplement to ARTH 308, will directly address the painting, sculpture and architecture of the Renaissance through the time of the Enlightenment.
ARTPH 300 Basic Art Photography 3 Units
Advisory: ENGW 102 or 103, ESL 320 or ESLR 320 or ESLW 320 or placement through assessment process
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers photographic printing processes produced in the digital age. Techniques include lighting ratios, correct exposure using an electronic flash, flash photography, studio photography and photography with infrared film. The course also includes study of the history of studio photography. Black and white, color, and digital processes are included. A 35mm single lens reflex (SLR) camera or a digital camera with manual options as well as darkroom and portfolio supplies are required. Field trips may be required.

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) camera or digital camera with manual options as well as darkroom and portfolio supplies are required. Different artists and topics are covered each semester. This course may be taken twice for credit.

ARTPH 320 Color Photography 2 Units
Prerequisite: ARTPH 300 or 305 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 18 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 scanning and enlarging with emphasis on color photography as an art form. Digital color correction, editing 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.

ARTPH 340 Alternative Process Photography 3 Units
Prerequisite: ARTPH 300 or 305 with a grade of "C" or better
Course Transferable to UC/CSU
Advisory: ENGWR 102 or 103, ESL 320 or ESLR 320 or ESLW 320; or placement through assessment process.
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course offers advanced alternative process photography including making and printing of a variety of photographic images. Students will be introduced to the history of photography and contemporary studio art. The course also includes study of the history of studio photography. Black and white, color, and digital processes are included. A 35mm single lens reflex (SLR) camera or a digital camera with manual options as well as darkroom and portfolio supplies are required. Field trips may be required.

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. The photographic process is emphasized. A portfolio including an extensive photo essay or documentary project is required. A 35mm single lens reflex (SLR) camera or a digital camera with manual options as well as darkroom 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 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, flash photography, black and white photography, and the study of specific fashion photographers. 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 with manual options as well as darkroom and portfolio supplies are required. Field trips may be required.

ARTPH 370 Fashion 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 fashion photography concepts. Topics include major movements in fashion photography as well as the history of photographic processes from the daguerreotype to the digital age. Negatives are produced from digital transparencies, xerox transparencies, ortho-litho films and natural objects. Printing on paper, fabric, wood and ceramics is covered. Papers and printing surfaces, brushes, memory storage devices and safety glasses are required. Field trips may be required.

ARTPH 490 Photography Lab 1 Unit
Corequisite: Concurrent enrollment in: ARTPH 300, ARTPH 305, ARTPH 310, ARTPH 320, ARTPH 340, ARTPH 350, ARTPH 360, ARTPH 370, or ARTPH 499.
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. It may be taken four times for credit with differing photography co-requisites.
Art New Media Degree

The Art New Media program emphasizes visual arts produced in a digital environment. While all new media are intimately linked to new technology, it is essential for a designer or artist to have a strong foundation in the fundamentals of visual art. Course work includes a wide spectrum of studies in traditional and new media fundamentals relevant to art and design.

**Requirements for Degree**

40.5 Units

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
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<td>Design: Fundamentals (3)</td>
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<tr>
<td>ART 323</td>
<td>Design: Color Theory</td>
<td>3</td>
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<td>ARTH 310</td>
<td>Modern Art</td>
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<tr>
<td>ARTNM 302</td>
<td>Digital Basics for Art New Media</td>
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<tr>
<td>ARTNM 305</td>
<td>History of Graphic Design</td>
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<tr>
<td>ARTNM 310</td>
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<td>ARTNM 330</td>
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<td>Advanced Projects in Graphic Design</td>
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<td>ARTNM 358</td>
<td>College Magazine: Art Selection and Editing</td>
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<td>ARTNM 359</td>
<td>College Magazine: Design and Production</td>
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<td>ARTNM 410</td>
<td>Interactive Multimedia Projects (4)</td>
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<td>Introduction to Digital 3D Modeling</td>
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<td>ARTNM 423</td>
<td>Special Effects and Texturing in 3D Animation</td>
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<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
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**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.

**Graphic Design Certificate**

The Graphic Design certificate offers a curriculum utilizing software applications, industry-standard hardware as well as developing the typographic/fundamental and technical skills necessary for today's workplace. This certificate focuses on visual communication through layout design, typography, and the dynamic relationship between image and type; it meets current marketplace demands by incorporating print/non-print media and the effect new technologies have on a changing communications field. Students are encouraged to choose their studies in graphic design at a four year college, or encouraged to choose an entry level position in the graphic design industry.

**Requirements for Certificate**

38.5-41.5 Units

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<td>Graphic Design: Typography</td>
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<td>ARTNM 328</td>
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<td>ARTNM 330</td>
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<td>ARTNM 352</td>
<td>Design for Publication</td>
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<td>ARTNM 354</td>
<td>Digital Prepress</td>
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<td>Advanced Projects in Graphic Design</td>
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<tr>
<td>ARTNM 406</td>
<td>Internship in Art New Media</td>
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**Illustration Certificate**

The Illustration certificate combines a strong foundation of traditional fine arts courses and courses using digital media. Illustration skills are used in animation and concept and character development as well as the traditional areas of editorial, advertising, technical and book illustration. This certificate focuses on drawing and painting skills in both the traditional and digital environments. Students are encouraged to continue their studies in illustration at a four year college, or encouraged to choose an entry level position in the illustration industry.

**Requirements for Certificate**

37.5 Units

<table>
<thead>
<tr>
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<td>ART 304</td>
<td>Figure Drawing and Composition</td>
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<td>Design: Color Theory</td>
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<td>ART 327</td>
<td>Painting (3)</td>
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<td>ART 336</td>
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<td>ART 314</td>
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<td>ARTNM 404</td>
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<td>ARTNM 405</td>
<td>Digital 2D Animation</td>
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</tr>
<tr>
<td>ARTNM 450</td>
<td>Portfolio for Art New Media</td>
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</tbody>
</table>
3D Animation Certificate

The 3D Animation certificate combines a strong foundation of traditional fine arts courses and courses using digital media. 3D animation skills are used in the film, game, broadcast, and web industries. This certificate focuses on drawing, sculptural, and photographic skills in both the traditional and digital environments. Students are encouraged to continue their studies in 3D animation at a four year college, or encouraged to choose an entry level position in the 3D animation industry.

Requirements for Certificate  40.5-43.5 Units

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>ART 300</td>
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<td>ART 304</td>
<td>Figure Drawing and Composition</td>
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<td>ART 375</td>
<td>Figure Sculpture</td>
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<td>ART 420</td>
<td>Film Making</td>
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<td>ARTNM 320</td>
<td>Facial Expression and Anatomy (3)</td>
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<td>or ART 306</td>
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<td>ARTNM 326</td>
<td>Digital Painting</td>
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<td>Digital Photo Imagery - PhotoShop Basics</td>
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<td>Introduction to Digital 3D Modeling</td>
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<td>ARTNM 421</td>
<td>3D Character Modeling and Rigging</td>
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<td>ARTNM 423</td>
<td>Special Effects and Texturing in 3D Animation</td>
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<tr>
<td>ARTNM 497</td>
<td>Internship in Art New Media</td>
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Web Design Certificate

The Web Design certificate incorporates graphic design, multimedia, and web technology through the fundamentals of design and industry standard software applications. This certificate focuses on the visual aspect of web design. Web design skills are used in business, government, educational institutions, and the entertainment industry. Students are encouraged to continue their studies in interactive design at a four year college, or encouraged to choose an entry level position in the web design industry.

Requirements for Certificate  42.5-45.5 Units

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<td>Intermediate Digital Design</td>
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<td>Digital Photo Imagery - PhotoShop Basics</td>
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Technical Communication Degree

Requirements for Degree  42.5 Units

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<td>Beginning Word Processing</td>
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<td>Operating Systems</td>
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<td>ENGWR 342</td>
<td>Introduction to Technical/Professional Communication</td>
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<td>ENGWR 344</td>
<td>Technical/Professional Communication: Writing Reports</td>
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<td>or ENGWR 348</td>
<td>Technical/Professional Communication: Plain English</td>
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<td>or ENGWR 350</td>
<td>Technical/Professional Communication: Proposal Writing</td>
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<td>ENGWR 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
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And a minimum of 6 units from the following: ................................................ 6

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<td>ENGWR 354</td>
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<tr>
<td>or SPEECH 331</td>
<td>Group Discussion</td>
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And a minimum of 12 units from the following: ............................................ 12

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<tr>
<td>ARTNM 324</td>
<td>Digital Design</td>
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<tr>
<td>ARTNM 328</td>
<td>Digital Photo Imagery - PhotoShop Basics</td>
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<td>ARTNM 352</td>
<td>Design for Publication</td>
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<tr>
<td>or CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
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<td>and CISA 331</td>
<td>Intermediate Desktop Publishing</td>
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<tr>
<td>ARTNM 354</td>
<td>Digital Prepress</td>
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<td>Intermediate Web Design</td>
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<td>ARTNM 404</td>
<td>Interactive Multimedia Basics (3)</td>
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<td>ARTNM 410</td>
<td>Interactive Multimedia Projects (4)</td>
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<td>or CISW 471</td>
<td>Interactive Multimedia Projects (4)</td>
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<td>ARTNM 450</td>
<td>Portfolio for Art New Media</td>
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<td>ARTNM 497</td>
<td>Internship in Art New Media</td>
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<td>CISW 310</td>
<td>Advanced Web Publishing</td>
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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 Communication Certificate

Requirements for Certificate  20.5-21.5 Units

<table>
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<tr>
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<tr>
<td>or CISA 330</td>
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<td>and 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>
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<tr>
<td>CISA 306</td>
<td>Intermediate Word Processing</td>
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<tr>
<td>ENGWR 342</td>
<td>Introduction to Technical/Professional Communication</td>
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<tr>
<td>ENGWR 344</td>
<td>Technical/Professional Communication: Writing Reports</td>
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<tr>
<td>or ENGWR 348</td>
<td>Technical/Professional Communication: Plain English</td>
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<tr>
<td>or ENGWR 350</td>
<td>Technical/Professional Communication: Proposal Writing</td>
<td>3</td>
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<tr>
<td>ENGWR 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
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And a minimum of 6 units from the following: ................................................ 6

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<tr>
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<tr>
<td>ARTNM 324</td>
<td>Digital Design</td>
<td>3</td>
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<tr>
<td>ARTNM 328</td>
<td>Digital Photo Imagery - PhotoShop Basics</td>
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<td>ARTNM 330</td>
<td>Intermediate Digital Photo Imagery</td>
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<td>ARTNM 402</td>
<td>Intermediate Web Design</td>
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<tr>
<td>ARTNM 404</td>
<td>Interactive Multimedia Basics (3)</td>
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<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
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<tr>
<td>CISW 310</td>
<td>Advanced Web Publishing</td>
<td>4</td>
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</table>

American River College Catalog 2008-2009 65
ARTNM 302  Digital Basics for Art New Media  
Course Transferable to CSU  
1.5 Units  
Hours: 18 hours LEC; 27 hours LAB  
This course is an introduction to the digital environment for Art New Media. Topics of MAC OS, digital vocabulary, scanning, saving and file formats will be included. Distinctions between vector, bitmap, and page layout applications will be made using Adobe Illustrator, Adobe Photoshop, and Adobe InDesign.

ARTNM 303  Graphic Design: Typography  
Course Transferable to CSU  
3 Units  
Hours: 36 hours LEC; 54 hours LAB  
Graphic design is the art of visual communication and this course introduces the tools and concepts of visual thinking, with an emphasis on the potential of typography as an effective communications tool. Historical overviews, portfolio development and client presentation paired with the terminology and visual language of design are applied 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 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. An analysis of design from a wide range of sources and cultures is a primary focus.

ARTNM 310  Design: Fundamentals  
3 Units  
Same As: ART 320  
Advisory: ENGRD 116; or ESLR 320 and ESLW 320; or placement through assessment process.  
General Education: AA/AS Area I; CSU Area C1  
Course Transferable to UC/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 ART 320.

ARTNM 320  Facial Expression and Anatomy  
3 Units  
Same As: ART 306  
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 will be addressed through a series of 2D and 3D projects. Not open to students who have taken ART 306.

ARTNM 324  Digital Design  
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; and ART 300 or 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. Design skills and the tools of the software application are applied to produce individual portfolio quality projects. This course may be taken four times on different versions.

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 the elements of graphic design, such as typography, gestalt, dominance, hierarchy, balance, and color. These issues are applied to the typographic tools and imaging capabilities of Adobe Illustrator. Concepts emphasize typographic design and the relationship between type and image.

ARTNM 326  Digital Painting  
3 Units  
Advisory: ARTNM 302, ART 300.  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course introduces the basic operating principles of Corel Painter to create and manipulate images. The fundamental skills of drawing and painting will be applied to individual portfolio quality projects. This course may be taken four times on different platforms.

ARTNM 328  Digital Photo Imagery - PhotoShop Basics  
3 Units  
Advisory: ART 320, CISC 300 (Macintosh), ENGRD 116 with a grade of "C" or better; OR ESLR 320, ESLL 320, ESLW 320 with a grade of "C" or better; or placement through assessment process.  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course is an introduction to computer-based photographic imaging using the basic operating principles of Adobe PhotoShop. Topics include color field variation, retouching, and the integration of graphics and photographs. The tools of the software application are applied to produce individual portfolio quality projects. This course may be taken four times on credit on a different version.

ARTNM 330  Intermediate Digital Photo Imagery  
3 Units  
Prerequisite: ARTPH 305 or ARTNM 328 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 addresses the intermediate techniques of digital photo imaging. 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. This course may be taken four times for credit on a different software package or version.

ARTNM 332  Digital Video  
3 Units  
Advisory: ARTNM 302 and 328.  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course applies the principles of cinematography to the production of digital video. Software applications such as Adobe Premiere and Adobe After Effects, will be employed to capture/import, edit and produce high-end visual productions. The course includes transitions, multiple layers, alpha channels and composite blue screen segments. Evaluation of multimedia projects containing video segments.
in terms of design esthetics and technical and technical competence will also be included. This course may be taken four times on a different software package or version.

ARTNM 352  Design for Publication  3 Units
Advisory: ART 320 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 promotions such as fliers, posters and brochures is also included. This course may be taken four times on different software versions.

ARTNM 354  Digital Prepress  3 Units
Advisory: ARTNM 350 and CISC 300 (Macintosh).
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces digital prepress for graphic design. Areas of focus will include desktop production for one-color and multi-color printing as well as the language necessary to properly communicate with service bureaus and commercial printers. Field trips are required.

ARTNM 356  Advanced Projects in Graphic Design  3 Units
Advisory: ARTNM 324, 328, and 352.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers project development and multiple software applications. Emphasis will be placed on project analysis, research, production, and presentation. Projects will be produced through the integration of major graphics applications in page layout, vector based graphics and digital imaging. A portfolio of professional level projects will be developed and presented.

ARTNM 358  College Magazine: Art Selection and Editing  1-2 Units
Advisory: ARTH 300 and ARTNM 302
Course Transferable to CSU
Hours: 24 hours LEC; 36 hours LAB
This course introduces production techniques and evaluation criteria for art submissions for a college level magazine. Techniques for print quality photography of art are demonstrated. Criteria for the selection of artwork are defined and applied to the editing process. Art works such as drawing, painting, photography, sculpture, jewelry, ceramics and digital media are selected and digitized for production. These images are used as visual content for the American River Review. This course may be taken twice for credit.

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 is for the design and production of the American River Review. It incorporates creative writing from the English program and visual art from Fine Arts and Art New Media as the content for the college magazine. American River Review. Practical experience with layout is offered, establishing an aesthetic relationship between the literary content and the visual image. Print production issues are addressed through the digital preparation of the magazine for print distribution. This course may be taken twice 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 will survey the history of the art of illustration. The course defines areas of specialization and the illustrator’s role in visual communication. This course will evaluate the appropriate use of materials, tools and methods. Illustration will be analyzed as a method of visual problem solving through a series of projects with varied applications. Not open to students who have taken ART 314.

ARTNM 400  Imaging For The Web  1 Unit
Same As: CISW 350
Advisory: CISC 306 or CISW 300
Course Transferable to CSU
Hours: 18 hours LEC, 18 hours LAB
This course takes an in-depth look at designing graphics for the Web. Industry standard graphic software is used to create original graphics as well as to manipulate found imagery. Topics include developing graphic elements for a Web site using a visual theme, creating buttons and intuitive navigational elements, making background textures and images, understanding Web file formats, scanning, presenting to a client, and simple animation. May be taken twice for credit on a different platform or graphics software package.

ARTNM 401  Introduction to Web Development and Design  3 Units
Same As: CISW 307
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the strategies for the development and design of web sites. Using an industry standard web authoring tool, the course integrates both artistic and technical concepts. Topics include assembling, designing and publishing web pages using strategies, principles and processes universally practiced by the professionals in this field. This course, in combination with CISW 307, may be taken four times for credit on a different software package or version.

ARTNM 402  Intermediate Web Design  3 Units
Prerequisite: ARTNM 328, ARTNM 401, or CISW 307 with a grade of “C” or better; or placement through the assessment process.
Advisory: ARTNM 330 and CISW 300
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. Various industry standard software applications are employed 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. This course may be taken four times on a different software package or version.

ARTNM 404  Interactive Multimedia Basics  3 Units
Same As: CISW 365
Advisory: ARTNM 324, ARTNM 402, CISW 300, or CISW 310
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course demonstrates how to create simple vector-based graphics, animation, buttons, movies and raster files in a web environment. Topics include drawing tools, time-line effects, sound and video integration and basic interactivity. ARTNM 404 and/or CISW 365 may be taken a total of 4 times on different platforms or software versions.
ARTNM 405     Digital 2D Animation     3 Units
Advisory: ART 300 and ARTNM 302.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
The course studies techniques in 2D animation and 2D character animation incorporating sound and effects, using industry standard software. Animation topics include 2D animation structure and concepts on the development of a story and storyboard, the use of the timeline and stage; the development of content, imagery and graphics, frame by frame animation (cell animation), rotoscope, digital tweening, camera moves, camera angles, cuts and transitions. Character animation techniques include movement and walk cycles, facial expressions and lip-sync. Projects can be published on the Web, CD-Rom, and video. The course may be taken four times for credit on a different software version.

ARTNM 410     Interactive Multimedia Projects     4 Units
Same As: CISW 471
Prerequisite: ARTNM 402, ARTNM 404, CISW 300, CISW 310, or CISW 365 with a grade of "C" or better
Advisory: ARTNM 328, CISW 410, and CISW 420
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course focuses on interactive multimedia project development. Emphasis is placed on the project development cycle including design specification, research, production, modification, and presentation. Projects assigned are multifaceted, approaching the complexity that individuals would be expected to encounter in the interactive multimedia development industry. This course is not open to students who have completed CISW 471.

ARTNM 420     Introduction to Digital 3-D Modeling     3 Units
Advisory: ART 300, 320, 370, or 411.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces computer 3D modeling and rendering, using industry standard software. Areas of focus include the modeling of 3D objects, camera use, and lighting techniques. The tools of the software application are applied to produce images for use in fine art, design, broadcast, film, and the Web. This course may be taken four times for credit on different software versions.

ARTNM 421     3D Character Modeling and Rigging     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. Human character modeling techniques are analyzed and applied. Techniques for creating animation controls, commonly known as rigging, are applied to create a digital marionette. Full body and facial character animation controls are examined. Industry issues, such as the topology flow of human anatomy and rig interfacing for animators, are developed. This course may be taken four times for credit on different software packages or versions.

ARTNM 422     3D Character Animation     3 Units
Prerequisite: ARTNM 420 with a grade of "C" or better.
Advisory: ART 375; DANCE 330.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides complex character animation techniques using industry standard software. Characters walk, breathe and act within a developed context. This course may be taken four times for credit on different software packages or versions.

ARTNM 423     Special Effects and Texturing in 3D Animation     3 Units
Prerequisite: ARTNM 420 with a grade of "C" or better.
Advisory: ART 411 or 419; ARTNM 326.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides complex texturing techniques and special effects using industry standard software. Scenes are created using texture mapping and shader trees, and atmospheres created using particles and volumetrics. Animation topics such as explosions and the breaking of objects are included. This course may be taken four times for credit on different software packages or versions.

ARTNM 425     Short Film in 3D Animation     3 Units
Advisory: ARTNM 420 or ISA 310.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces 3D computer animated story telling using the short film genre. The 3D animation production pipeline is examined and used in the creation process. Short films are created in a team format. The short films are prepared for a portfolio DVD quality presentation.

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
This course provides the fundamentals of designing and assembling an Art New Media portfolio of art and/or graphic works. Topics include techniques for presenting and photo-documenting the work and developing a resume.

ARTNM 497     Internship in Art New Media     1-4 Units
Prerequisite: Completion of 12 units of Art New Media (ARTNM) courses with a "C" or better.
Course Transferable to CSU
Hours: 36 hours LEC; 240 hours LAB
This course provides supervised internship in the field of Art New Media which includes graphic design, multimedia and web graphics. It also includes essential aspects of project development and management.
Astronomy is part of the general education program at American River College. The astronomy sequence includes a laboratory and complies with general education transfer requirements.

**ASTR 300  Introduction to Astronomy   3 Units**  
Advisory: MATH 100 and 110  
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course covers astronomical events, utilizing history, observations, reading and discussion. It also includes changing conceptions of the cosmos, the planets, the universe of stars and galaxies and cosmic evolution.

**ASTR 310  The Solar System  3 Units**  
General Education: AA/AS Area IV  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course explores the nature and evolution of the solar system. Topics include the nighttime 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.

**ASTR 320  Stars, Galaxies, and Cosmology  3 Units**  
General Education: AA/AS Area IV  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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.

**ASTR 330  Introduction to Astrobiology  3 Units**  
General Education: AA/AS Area IV  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course explores the possibility of life beyond the Earth. Topics include the origin and evolution of life on Earth, the formation of Earth and other planets in the solar system, the likelihood of life existing on other planets or moons within our solar system, attempts to locate life within our solar system and attempts to communicate with intelligent life in other parts of the galaxy.

**ASTR 400  Astronomy Laboratory  1 Unit**  
Corequisite: ASTR 300  
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course covers the practical use of a telescope for both visual observation and astrophotography. Topics include identifying constellations, collecting and interpreting scientific data, and the use of sky charts and handbooks to plan observation. Night field trips are required.

**ASTR 480  Honors Introduction to Astronomy   1 Unit**  
Prerequisite: Cumulative GPA of 3.0 or above; ENGWR 300 or 480, and MATH 330 with a grade of “C” or better.  
Corequisite: ASTR 300.  
Course Transferable to UC/CSU  
Hours: 18 hours LEC  
This course covers an introduction to current topics in astronomy. It is intended for students with a serious interest in astronomy and requires the ability to apply mathematics and conceptual reasoning to astronomical systems. The course utilizes problem solving, reading and discussion in a seminar format. A previous knowledge of physics and astronomy is assumed.
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.

Automotive Analysis Degree and Certificate

This Automotive degree and certificate prepares the student for entry level employment as a smog and driveability service technician. The certificate also prepares the student for Automotive Service Excellence (ASE) certification in Engine Repair A1, Automatic Transmissions/Transaxles A2, Electrical A6, Engine Performance A8, Advanced Engine Performance I.I along with the California Enhanced Area (EA) Smog Check License.

Career Opportunities
Automotive Technician; Smog Check Technician

Requirements for Degree or Certificate  52 Units

1st Semester
AT 100  Technical Basics for the Automotive Professional .................. 2
AT 180  Automotive Data Acquisition ........................................ 3

2nd Semester
AT 110  Automotive Brakes .................................................... 4
AT 311  Suspension and Steering Systems ..................................... 4
AT 312  Electrical Systems ...................................................... 4

3rd Semester
AT 130  Manual Drive Trains and Axles ...................................... 4
AT 313  Automatic Transmission and Transaxles ............................ 4
AT 314  Automotive Engine Repair ............................................ 4

4th Semester
AT 310  Heating and Air-Conditioning Systems ............................ 4
AT 322  Engine Performance and Electronic Engine Controls ................. 6

Final Semester
AT 315  Advanced Engine/Chassis Electrical .................................. 4
AT 323  Clean Air Car Course .................................................... 6

Associate Degree Requirements: The Automotive Analysis 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 Collision Technology Degree and Certificate

Requirements for Degree or Certificate  25.5 Units

AT 121  Automotive Collision - Removal and Replacement of .......... 2.5
AT 122  Automotive Collision - Non-Structural Repairs ................. 2.5
AT 123  Automotive Collision - Structural Panel & Component Repairs 2.5
AT 124  Automotive Refinishing Technology .................................. 2.5
AT 126  Automotive Collision Estimating ...................................... 2
AT 310  Heating and Air-Conditioning Systems ............................. 4
AT 311  Suspension and Steering Systems ................................... 4
AT 312  Electrical Systems ...................................................... 4
WELD 103  Gas Metal Arc Welding of Sheet Steel .......................... 1.5

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 Component Service Technician Degree and Certificate

This degree or certificate prepares the student for employment repairing of various automobile components including those requiring computer technology.

Career Opportunities

Employment as a technician, shop foreman, service manager for new car dealers, automotive repair shops, fleet operators.

Requirements for Degree or Certificate 40 Units

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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>2</td>
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<tr>
<td>AT 105</td>
<td>Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 110</td>
<td>Automotive Brakes</td>
<td>4</td>
</tr>
<tr>
<td>AT 130</td>
<td>Manual Drive Trains and Axles</td>
<td>4</td>
</tr>
<tr>
<td>AT 140</td>
<td>Advanced Automotive Skill and Speed Development</td>
<td>4</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 310</td>
<td>Heating and Air-Conditioning Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td>4</td>
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<td>AT 312</td>
<td>Electrical Systems</td>
<td>4</td>
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<td>AT 313</td>
<td>Automatic Transmission and Transaxles</td>
<td>4</td>
</tr>
<tr>
<td>AT 314</td>
<td>Automotive Engine Repair</td>
<td>4</td>
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</tbody>
</table>

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.

Automotive Technology Degree and Certificate

This program prepares the student for an entry level position in the automotive industry with emphasis on engine management systems, emission controls, and complete automotive systems diagnosis and repair. The program also prepares the student for all 9 Automotive Service Excellence (ASE) certifications including Advanced Engine Performance (L-1) as well as the state Enhanced Area (EA) Smog Certification Test.

Requirements for Degree or Certificate 60 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>2</td>
</tr>
<tr>
<td>AT 105</td>
<td>Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 110</td>
<td>Automotive Brakes</td>
<td>4</td>
</tr>
<tr>
<td>AT 130</td>
<td>Manual Drive Trains and Axles</td>
<td>4</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 310</td>
<td>Heating and Air-Conditioning Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 312</td>
<td>Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 313</td>
<td>Automatic Transmission and Transaxles</td>
<td>4</td>
</tr>
<tr>
<td>AT 314</td>
<td>Automotive Engine Repair</td>
<td>4</td>
</tr>
<tr>
<td>AT 320</td>
<td>Engine Performance Technology</td>
<td>12</td>
</tr>
<tr>
<td>AT 321</td>
<td>Engine Performance Technology</td>
<td>12</td>
</tr>
</tbody>
</table>

Associate Degree Requirements: 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.

Diesel Technology Certificate

Requirements for Degree or Certificate 24 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 150</td>
<td>Introduction to Diesel Technology</td>
<td>2</td>
</tr>
<tr>
<td>AT 151</td>
<td>Diesel Engine Repair</td>
<td>4</td>
</tr>
<tr>
<td>AT 152</td>
<td>Basic Hydraulic Principles of Diesel Technology</td>
<td>4</td>
</tr>
<tr>
<td>AT 153</td>
<td>Diesel Brake Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 154</td>
<td>Diesel Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 155</td>
<td>Diesel Power Trains</td>
<td>4</td>
</tr>
<tr>
<td>AT 310</td>
<td>Heating and Air-Conditioning Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 312</td>
<td>Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 313</td>
<td>Automatic Transmission and Transaxles</td>
<td>4</td>
</tr>
<tr>
<td>AT 314</td>
<td>Automotive Engine Repair</td>
<td>4</td>
</tr>
</tbody>
</table>

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.

Air Conditioning Service Certificate

This certificate program prepares the student for an entry level position in the automotive industry. This program also prepares the student for Automotive Service Excellence (ASE) certification in Air Conditioning A-7.

Requirements for Certificate 16 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>2</td>
</tr>
<tr>
<td>AT 105</td>
<td>Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 310</td>
<td>Heating and Air-Conditioning Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 312</td>
<td>Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 212</td>
<td>Marketing for Small Businesses</td>
<td>1</td>
</tr>
<tr>
<td>AT 218</td>
<td>Management Skills for the Small Business</td>
<td>1</td>
</tr>
<tr>
<td>AT 224</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>BUS 300</td>
<td>Beginning Keyboard/Applications (1 - 3)</td>
<td>1</td>
</tr>
</tbody>
</table>

Automotive Claims Estimator Certificate

Requirements for Certificate 21 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>2</td>
</tr>
<tr>
<td>AT 105</td>
<td>Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 126</td>
<td>Automotive Collision Estimating</td>
<td>2</td>
</tr>
<tr>
<td>AT 127</td>
<td>Automotive Collision Estimating II</td>
<td>2</td>
</tr>
<tr>
<td>AT 310</td>
<td>Heating and Air-Conditioning Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td>4</td>
</tr>
<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses</td>
<td>1</td>
</tr>
<tr>
<td>BUS 218</td>
<td>Management Skills for the Small Business</td>
<td>1</td>
</tr>
<tr>
<td>BUS 224</td>
<td>Customer Service</td>
<td>1</td>
</tr>
</tbody>
</table>

Automotive Service Technician Certificate

This certificate prepares the student for an entry level position in the automotive industry. It also prepares the student for Automotive Service Excellence (ASE) certifications in Automotive Brakes, Manual Drive Trains and Axles, Heating and Air-Conditioning Systems, Suspension and Steering Systems, Electrical Systems, Automatic Transmission and Transaxles, and Automotive Engine Repair.

Career Opportunities

The Automotive Service Technician certificate prepares the student for entry level-positions in the fields of Auto Technician, Auto/Truck Specialist, Field Service, Sales Representative, Tune-up and Electrical Specialist.
Parts and Service Certificate

This certificate provides training for automotive parts and service advisors. Topics include parts knowledge, integrated computer management software, scheduling, inventory control, hazardous materials and warranty documentation requirements.

Career Opportunities

Various positions in the automotive parts and service industry, such as service advisors and parts managers.

Requirements for Certificate: 17 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>2</td>
</tr>
<tr>
<td>AT 105</td>
<td>Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 107</td>
<td>Employability Skills for Technical Careers</td>
<td>2</td>
</tr>
<tr>
<td>AT 143</td>
<td>Automotive Parts</td>
<td>3</td>
</tr>
<tr>
<td>AT 146</td>
<td>Automotive Service Advising</td>
<td>3</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 298</td>
<td>Work Experience in Automotive Technology (1 - 4)</td>
<td>1</td>
</tr>
</tbody>
</table>

Transmission Service Certificate

This certificate program prepares the student for an entry-level position in the automotive industry. This program includes Automotive Service Excellence (ASE) certification in A-2 automatic transmission and A-3 manual drive-train.

Career Opportunities

Entry-level positions in automatic transmission, clutch, and drive-train repair.

Requirements for Certificate: 28 Units

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>2</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>4</td>
</tr>
<tr>
<td>AT 140</td>
<td>Advanced Automotive Skill and Speed Development</td>
<td>4</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 210</td>
<td>Advanced Automatic Transmission and Transaxle</td>
<td>4</td>
</tr>
<tr>
<td>AT 312</td>
<td>Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 313</td>
<td>Automatic Transmission and Transaxle</td>
<td>4</td>
</tr>
</tbody>
</table>

Undercar Service Certificate

The Undercar service certificate provides entry-level training to perform repairs in automotive suspension, brake and exhaust service facilities.

Career Opportunities

This certificate provides students with knowledge for entry-level careers in the automotive suspension, brake and exhaust repair facilities.

Requirements for Certificate: 36 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
<td>2</td>
</tr>
<tr>
<td>AT 105</td>
<td>Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 110</td>
<td>Automotive</td>
<td>4</td>
</tr>
<tr>
<td>AT 130</td>
<td>Manual Drive Trains and Axles</td>
<td>4</td>
</tr>
<tr>
<td>AT 180</td>
<td>Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>AT 310</td>
<td>Heating and Air Conditioning Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 311</td>
<td>Suspension and Steering Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 312</td>
<td>Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 313</td>
<td>Automatic Transmission and Transaxle</td>
<td>4</td>
</tr>
<tr>
<td>AT 314</td>
<td>Automotive Engine Repair</td>
<td>4</td>
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</table>

Requirements for Certificate: 17 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>2</td>
</tr>
<tr>
<td>AT 110</td>
<td>Automotive Brakes</td>
<td>4</td>
</tr>
<tr>
<td>AT 145</td>
<td>Automotive Exhaust System</td>
<td>4</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>4</td>
</tr>
</tbody>
</table>

AT 100 Technical Basics for the Automotive Professional 2 Units
Hours: 36 hours LEC, 27 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. Lab 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 102 Keep Your Wheels Rolling 2 Units
Hours: 27 hours LEC, 27 hours LAB
This course is designed to provide skills necessary for basic automotive upkeep. Additionally, it covers the selection of repair technicians and the purchase of vehicles. It is not designed for the automotive technician program.

AT 105 Mathematics for Automotive Technology 3 Units
General Education: AA/AS Area II(b)
Hours: 54 hours LEC
This course covers mathematics as it relates to the automotive trades. Metric system, fraction, decimal equivalents, basic equations, ratio and proportion, gear and pulley ratios, power, efficiency, torque and thrust are covered.

AT 106 Automotive Dealership Operations 2 Units
Hours: 36 hours LEC
This course is an introduction to dealership operations and includes all of the various influences on the technician’s position within the operation. Topics include service, sales, parts, and financial department’s positions and operations. Customer Satisfaction Index (CSI) and the Bureau of Automotive Repair (BAR) are discussed. Field trips to local dealerships may be required.

AT 107 Employability Skills for Technical Careers 2 Units
Same As: ET 250 and WELD 150
General Education: AA/AS Area III(b)
Hours: 36 hours LEC
This course provides the opportunity of exploring technical careers while developing valuable work and life skills. It is an introduction to a variety of technically-related occupations. Emphasis is placed on exploring technical careers in the Sacramento area. Activities are designed to enhance personal development, employability skills, and self esteem through leadership, citizenship, and character development.

AT 110 Automotive Brakes 4 Units
Corequisite: AT 100 and 180
Hours: 54 hours LEC, 54 hours LAB
This course covers theory, design, adjustment and repair or overhaul of brake systems and components. Operation of power and hand devices used in the servicing of brake systems and components is covered. This course meets Automotive Service Excellence (ASE) A5 standards.
AT 121 Automotive Collision - Removal and Replacement of Non-Structural Components and Damage Analysis 2.5 Units

Hours: 27 hours LEC; 54 hours LAB
This course covers the principles and theory of automobile construction and application of technical skills. It provides a fundamental knowledge to correctly and safely remove, inspect, replace and align cosmetic bolt-on body components and assemblies on today's vehicles. This course provides information necessary for the technician to protect mechanical and electrical systems during tear down and reassembly, anchoring theory and techniques applicable to collision-damaged vehicles. Interpretation of damage analysis reports and types of collision damage are covered.

AT 122 Automotive Collision - Non-Structural Repairs 2.5 Units

Hours: 27 hours LEC; 54 hours LAB
This course provides the technical information and hands-on experience to perform limited and supervised repairs to collision-damaged vehicles. Principles and theory of automobile collision repair including procedures for replacement of door skins and quarter panels, metal straightening theory and techniques for both steel and aluminum, and making repair versus replacement decisions are covered. Measuring systems and techniques and their use in diagnosing and correcting collision damage are also presented.

AT 123 Automotive Collision - Structural Panel and Component Repairs 2.5 Units

Hours: 27 hours LEC; 54 hours LAB
This course provides the technical information and hands-on experience to perform limited and supervised repairs to collision-damaged vehicles. Principles and theory of automobile collision repair including procedures for replacement of door skins and quarter panels, metal straightening theory and techniques for both steel and aluminum, and making repair versus replacement decisions are covered. Measuring systems and techniques and their use in diagnosing and correcting collision damage are also presented.

AT 124 Automotive Refinishing Technology 2.5 Units

Hours: 27 hours LEC; 54 hours LAB
This course covers the principles and theory of paint finish application, tinting and blending, color evaluation and evaluating color mismatch problems. It also covers OSHA, EPA, Clean Air Act, and VOC regulations and compliance for each of these rules or regulations. Paint application techniques, restoration of corrosion protection, and blending procedures are covered in addition to new and emerging paint technologies. Color identification and interpreting vehicle color codes are covered.

AT 126 Automotive Collision Estimating 2 Units

Hours: 18 hours LEC; 54 hours LAB
This course is designed to provide the student with both technical and practical skills necessary to properly diagnose collision damaged vehicles and to document the costs and times necessary to repair collision damaged vehicles. Using state-of-the-art computer-generated estimating programs and video imaging, the student will analyze collision-damaged vehicles and then prepare itemized estimates detailing the required procedures and parts necessary to correctly repair the vehicle.

AT 127 Automotive Collision Estimating II 2 Units

Prerequisite: AT 126 with a grade of "C" or better.
Hours: 18 hours LEC; 54 hours LAB
This course is a comprehensive study of computer-assisted estimating and office management systems used in the automotive collision repair industry. It includes a thorough study of all aspects of an estimator working in a collision repair facility environment. Advanced collision estimating concepts are presented.

AT 128 Automotive Collision Repair Welding 4 Units

Hours: 36 hours LEC; 108 hours LAB
This course includes principles and theory of welding applicable to collision repair. Emphasis will be on: welding thin gauge high strength low alloy and high strength steels found on today's vehicles; joint design for sectioning structural panels; weld testing; maintaining corrosion protection; equipment setup and tuning; and preparation for industry certification.

AT 130 Manual Drive Trains and Axles 4 Units

Corequisite: AT 100 and 180
Hours: 54 hours LEC; 54 hours LAB
This course covers the basics of manual transmission and transaxles principles 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 meeting Automotive Service Excellence (ASE) standard A3.

AT 140 Advanced Automotive Skill and Speed Development 4 Units

Corequisite: AT 110, 130, 311, 312, and 314.
Hours: 54 hours LEC; 54 hours LAB
This course covers automotive heavy component diagnosis and repair, including engine and transmission removal and replacement, as well as in-car engine repairs, adjustments, and service. This course may be taken four times requiring a different project every semester.

AT 143 Automotive Parts 3 Units

Corequisite: AT 100
Advisory: AT 102
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 4 Units

Prerequisite: AT 100 with a grade of "C" or better.
Hours: 54 hours LEC; 54 hours LAB
This course is an introduction to the principles and service of exhaust systems including pipe bending, cutting, welding, installation, repair and inspection. This course prepares students for the Automotive Service Excellence (ASE) exhaust systems test which is required for the ASE Under-Car Specialist Certificate.

AT 146 Automotive Service Advising 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 advisor. 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 understanding of small business operations.

AT 150 Introduction to Diesel Technology 4 Units

Hours: 54 hours LEC; 54 hours LAB
This course introduces the field of diesel technology. It covers proper safety and hazardous waste training, use of basic hand and power tools, and the basic workings of the diesel engine.

AT 151 Diesel Engine Repair 4 Units

Hours: 54 hours LEC; 54 hours LAB
This course covers basic engine principles for the diesel engine. It covers disassembly and reassembly of diesel engine systems, including cleaning and safe removal of engines, fuel injection systems, valve trains, and engine heads.
AT 152  Basic Hydraulic Principles of Diesel Technology  4 Units
Hours: 54 hours LEC; 54 hours LAB
This course provides an introduction to the basic hydraulic principles and functions of the diesel engine. Topics include hydraulic fundamentals and principles, functions of hydraulic fluids, directional and flow control valves, and machine hydraulic overview.

AT 153  Diesel Brake Systems  4 Units
Advisory: AT 100
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.

AT 154  Diesel Electrical Systems  4 Units
Corequisite: AT 105
Advisory: AT 100
Hours: 54 hours LEC; 54 hours LAB
This course covers the operation of diesel electrical systems. Topics include electrical circuits, test instruments, charging systems, and electrical starting systems.

AT 155  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 inspection, and replacement of clutch brakes.

AT 165  Advanced DS0/Scanner Operations  1.5 Units
Prerequisite: Completion of AT 175, 322, 323, and 324; or hold a current smog license.
Hours: 27 hours LEC
This advanced course covers the use of various lab scopes and handheld computer scanners with heavy emphasis on wave form analysis and data stream diagnostics. In addition, this course will provide a hands-on approach to evaluating system readiness monitors including mode 6 and 7 validation.

AT 172  BAR A-6 Alternative - Electrical and Electronic Systems Training  1.5 Units
Hours: 27 hours LEC
This course is an intensive Bureau of Automotive Repair-approved review of automotive electrical/electronic systems. It partially satisfies ASE certification requirements when applying for a Smog Check Technician license.

AT 173  BAR A-8 Alternative - Engine Performance Systems  1.5 Units
Hours: 27 hours LEC
This course is an intensive Bureau of Automotive Repair (BAR)-approved review of automotive engine performance offered as an alternative to the ASE A-8 certification. It partially qualifies auto technicians for a Smog Check Technician license exam.

AT 174  BAR Approved L1 Alternative- Advanced Engine Performance/Emission Systems  2 Units
Advisory: AT 312 and AT 321 or 322, or engine performance experience in the automotive field.
Hours: 36 hours LEC
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 System Diagnostics, and J/M Failure Diagnosis. The BAR L1 Alternative test is administered at the end of the class. This course may be taken four times. Credit/No Credit only.

AT 175  BAR OBD (On Board Diagnostics) II Update Course  1.5 Units
Hours: 27 hours LEC
This course presents an overview of automotive On-Board Diagnostics (OBD) systems. Instruction will include a history of OBD systems, computer diagnostics, government and Society of Automotive Engineers (SAE) regulations, OBDDII diagnostics, monitors and reference information. This is a Bureau of Automotive Repair approved course.

AT 176  Bureau of Automotive Repair (BAR) Emissions Update  1 Unit
Hours: 18 hours LEC
This course is required for all licensed smog technicians who need to meet California emissions controls smog license renewal standards. This course may be taken four times for credit.

AT 180  Automotive Data Acquisition  3 Units
Hours: 54 hours LEC
This course covers the skills needed to adequately retrieve and apply automotive data acquisition, including on-line technical manuals, CD-ROM based 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 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. This course may be taken four times for credit on different projects.

AT 201  ASE A-1 Engine Repair Test Preparation .5 Units
Hours: 9 hours LEC
This nine-hour course will help prepare for the ASE (Automotive Service Excellence) A-1 Engine Repair examination by reviewing ASE-style test questions and engine repair information. Credit/No Credit only. This course may be taken four times.

AT 202  ASE A-2 Auto Transmission and Transaxles Test Preparation .5 Units
Hours: 9 hours LEC
This nine-hour course will help prepare students for the ASE (Automotive Service Excellence) A-2 Transmission/Transaxle examination by reviewing ASE-style test questions and transmission/transaxle information. Credit/No Credit only. This course may be taken four times.

AT 203  ASE A-3 Manual Drive Trains and Axles Test Preparation .5 Units
Hours: 9 hours LEC
This nine-hour course will help prepare students for the ASE (Automotive Service Excellence) A-3 manual drive trains and axles examination by reviewing ASE-style test questions and drive trains information. Credit/No Credit only. This course may be taken four times.

AT 204  ASE A-4 Suspension and Steering Test Preparation .5 Units
Hours: 9 hours LEC
This nine-hour course will help prepare students for the ASE (Automotive Service Excellence) A-4 Suspension and Steering examination by reviewing ASE-style questions and suspension and steering information. Credit/No Credit only. This course may be taken four times.
AT 205  ASE A-5 Brakes Test Preparation  .5 Units
Hours: 9 hours LEC
This nine-hour course will help prepare students for the ASE (Automotive Service Excellence) A-5 Brakes examination by reviewing ASE-style test questions and brakes information. Credit/No Credit only. This course may be taken four times.

AT 206  ASE A-6 Electrical/Electronic Systems Test Preparation  .5 Units
Hours: 9 hours LEC
This nine-hour course will help prepare students for the ASE (Automotive Service Excellence) A-6 Electrical/Electronic Systems examination by reviewing ASE-style test questions and electrical/electronic systems information. Credit/No Credit only. This course may be taken four times.

AT 207  ASE A-7 Heating & Air Conditioning Test Preparation  .5 Units
Hours: 9 hours LEC
This nine-hour course will help prepare students for the ASE (Automotive Service Excellence) A-7 Heating & Air Conditioning examination by reviewing ASE-style test questions and heating & air conditioning information. Credit/No Credit only. This course may be taken four times.

AT 208  ASE A-8 Engine Performance Test Preparation  .5 Units
Hours: 9 hours LEC
This nine-hour course will help prepare students for the ASE (Automotive Service Excellence) A-8 Engine Performance examination by reviewing ASE-style test questions and engine performance information. Credit/No Credit only. This course may be taken four times.

AT 209  ASE L-1 Advanced Engine Performance Specialist Test Preparation  .5 Units
Hours: 9 hours LEC
This nine-hour course will help prepare students for the ASE (Automotive Service Excellence) L-1 Advanced Engine Performance Specialist examination by reviewing ASE-style test questions and engine repair information. Credit/No Credit only. This course may be taken four times.

AT 210  Advanced Automatic Transmission and Transaxle  4 Units
Prerequisite: AT 313 with a grade of “C” or better.
Hours: 54 hours LEC; 54 hours LAB
This course builds on AT 313, covering the advanced aspects of automatic transmission and transaxle 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 251  Automotive Electronic Accessories and Installation  3 Units
Same As: ET 251
Corequisite: AT 312 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. Topics related to this course cover the areas for the certification testing required to become a qualified Mobile Electronics Certified Professional (MECP) installer. A field trip is required. This course is not open to students who have taken ET 251.

AT 294  Topics in Automotive Technology - New and Emerging Occupations  .5-.5 Units
Prerequisite: To be determined for each topic.
Hours: 90 hours LEC; 270 hours LAB
Individualized course developed in cooperation with industry to meet specialized training needs.

AT 298  Work Experience in Automotive Technology  1-4 Units
General Education: AA/AS Area III(b)
Hours: 72 hours LEC
This course is designed for students to earn college credit by combining volunteer or paid work experience and classroom training. Using their jobs as learning situations, the students join with their employers and the college in establishing learning objectives to be accomplished during the semester.

AT 301  Small Gas Engines, 4-Cycle  2 Units
Same As: HORT 330
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers basic operational theory, servicing, adjusting and the maintenance of 4-cycle small gas engines as they pertain to the automotive and horticulture industries. This course is not open to students who have taken HORT 330.

AT 302  Small Gas Engines, 2-Cycle  2 Units
Same As: HORT 331
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers basic operational theory, servicing, adjusting, and maintaining 2-cycle small gas engines as they pertain to the automotive and horticulture industries. This course is not open to students who have taken HORT 331.

AT 310  Heating and Air-Conditioning Systems  4 Units
Corequisite: AT 100.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an introduction to automotive heating and air conditioning theory. It meets Automotive Service Excellence (ASE) standard A7 and combines performance testing and repair practices as utilized in the industry.

AT 311  Suspension and Steering Systems  4 Units
Corequisite: AT 100.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an introduction to advanced principles and service of suspension and steering systems, including alignment of equipment, alignment procedures, and the diagnosis and repair of suspension components. It meets Automotive Service Excellence (ASE) A4 certification standards.

AT 312  Electrical Systems  4 Units
Corequisite: AT 100 and 105.
Course Transferable to CSU
Hours: 54 hours LEC; 54 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. This course meets Automotive Service Excellence (ASE) certification standards for the A6 electrical certification with completion of AT 315 and either AT 320 or AT 322.
AT 313  Automatic Transmission and Transaxles  4 Units
Corequisite: AT 100.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers the basics of automatic transmission and transaxle principles and service. Topics include hydraulic principles, diagnosis and service, power conversion, and automatic transmission operation. AT 313 and AT 210 together meet Automotive Service Excellence (ASE) standard A2.

AT 314  Automotive Engine Repair  4 Units
Corequisite: AT 100 and 105.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers the principles, operation and diagnosis of automotive engines including basic engine operation and construction, parts identification and location, engine disassembly procedures, engine diagnosis using metric and English measurement systems, engine repair and rebuilding procedures, and engine reassembly procedures. Completion of AT 314 and either AT 320 or AT 322 meets Automotive Service Excellence (ASE) A1 standards.

AT 315  Advanced Engine/Chassis Electrical  4 Units
Prerequisite: AT 312 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers the principles of advanced diagnosis of engine and chassis electrical systems; including power windows, power seats, power locks (including key-less entry), multi-plexing systems, computer controlled charging systems, navigation systems, factory installed accessory circuits and hybrid powertrain control systems. This course meets Automotive Service Excellence (ASE) certification standards for the A6 electrical certification with the completion of AT 312 and either AT 320 or AT 322.

AT 320  Engine Performance Technology  12 Units
Prerequisite: AT 312 and 314 with grades of “C” or better
Course Transferable to CSU
Hours: 162 hours LEC; 162 hours LAB
This course covers the principles and diagnosis of the following systems: chassis electrical, engine electrical, engine mechanical, conventional and electronic computer-controlled ignition systems, basic fuel injection, and basic computer systems. It also includes extensive troubleshooting with use of hand-held test equipment, lab oscilloscopes, scanners, digital storage oscilloscopes (DSO) and 4- and 5-gas analyzers. It meets Bureau of Automotive Repair (BAR) and Automotive Service Excellence (ASE) A-8 certifications. It also satisfies A-1 and A-6 requirements when AT 312, AT 314 and AT 315 are completed.

AT 321  Engine Performance Technology  12 Units
Prerequisite: AT 320 with a grade of “C” or better
Course Transferable to CSU
Hours: 162 hours LEC; 162 hours LAB
This course covers theory, operation, and diagnosis of fuel delivery and emission control systems. Fuel supply, electronic feedback carburetors, mechanical and electronic fuel injection, emission components as well as operation and diagnosis are also presented. It also includes Bureau of Automotive Repair (BAR) Basic Area Clean Air Course, Enhanced Area Clean Air Course, and BAR Update Courses. This course meets Automotive Service Excellence (ASE) A8 and L1 requirements when AT 312, 314, 315 and 320 are completed.

AT 322  Engine Performance & Electronic Engine Controls  6 Units
Prerequisite: AT 312 and 314 with grades of “C” or better
Course Transferable to CSU
Hours: 72 hours LEC; 108 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. Instruction includes extensive troubleshooting, use of diagnostic test equipment, lab oscilloscopes, scantools, and emission analyzers. This course meets Automotive Service Excellence (ASE) certification standards for the A8 engine performance certification with completion of AT 323.

AT 323  Clean Air Car Course  6 Units
Prerequisite: AT 322 (Engine Performance & Electronic Engine Controls) with a grade of “C” or better or one year work experience in automotive engine performance
Course Transferable to CSU
Hours: 72 hours LEC; 108 hours LAB
This course covers the Bureau of Automotive Repair (BAR) certified Basic and Advanced Clean Air Car Course, which now includes the former On Board Diagnostics (OBD) II update course, and the BAR 03/04 and 05/06 update courses. Topics include: smog check laws, rules and regulations; exhaust emission analysis; emission control systems diagnosis; smog inspection procedures; digital storage oscilloscopes (DSO) usage; loaded mode emission testing and smog check failure diagnosis. It is required for first-time licensed technicians or for those whose license has been expired for more than one year. This course may be taken four times for credit.
Biotechnology Degree

This program 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 program also prepares the student for transfer at the upper division level to academic programs involving biotechnology.

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.

Requirements for Degree 41-42 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIOL 310</td>
<td>General Biology (4)</td>
<td>4 - 5</td>
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<tr>
<td>or BIOL 400</td>
<td>Principles of Biology (5)</td>
<td>4 - 5</td>
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<tr>
<td>BIOL 440</td>
<td>General Microbiology</td>
<td>4</td>
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<tr>
<td>BIOT 300</td>
<td>Introduction to Biotechnology</td>
<td>4</td>
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<tr>
<td>BIOT 307</td>
<td>Biotechnology and Society</td>
<td>2</td>
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<tr>
<td>BIOT 315</td>
<td>Methods in Biotechnology</td>
<td>5</td>
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<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry (5)</td>
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<tr>
<td>or CHEM 400</td>
<td>General Chemistry (5)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 306</td>
<td>Introduction to Chemistry (5)</td>
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<tr>
<td>or CHEM 401</td>
<td>General Chemistry (5)</td>
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<tr>
<td>CISC 300</td>
<td>Computer Familiarization</td>
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<tr>
<td>ENGW 300</td>
<td>College Composition</td>
<td>3</td>
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<tr>
<td>ENGW 301</td>
<td>College Composition and Literature (3)</td>
<td>3</td>
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<tr>
<td>or ENGW 302</td>
<td>Advanced Composition and Critical Thinking</td>
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</tr>
<tr>
<td>or ENGW 303</td>
<td>Introduction to Technical/Professional Communication (3)</td>
<td>3</td>
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<tr>
<td>STAT 301</td>
<td>Introduction to Probability and Statistics</td>
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<td>And a minimum of 2 units from the following:</td>
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<tr>
<td>BIOT 498</td>
<td>Work Experience in Biotechnology (1 - 4)</td>
<td>2</td>
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<tr>
<td>and BIOT 305</td>
<td>Introduction to Bioinformatics (1)</td>
<td>1</td>
</tr>
<tr>
<td>or BIOT 310</td>
<td>Polymerase Chain Reaction (PCR) Methods (1)</td>
<td>1</td>
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</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

This program 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 program is suitable for preparing the student for the biotechnology workplace at the support personnel level.

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.

Requirements for Certificate 32-33 Units

<table>
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<tr>
<th>Course</th>
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<tr>
<td>BIOT 315</td>
<td>Methods in Biotechnology</td>
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<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry (5)</td>
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<td>ENGW 300</td>
<td>College Composition</td>
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<td>MATH 120</td>
<td>Intermediate Algebra</td>
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<tr>
<td>And a minimum of 1 unit from the following:</td>
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<tr>
<td>BIOT 305</td>
<td>Introduction to Bioinformatics (1)</td>
<td>1</td>
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<tr>
<td>BIOT 307</td>
<td>Biotechnology and Society (2)</td>
<td>2</td>
</tr>
<tr>
<td>BIOT 310</td>
<td>Polymerase Chain Reaction (PCR) Methods (1)</td>
<td>1</td>
</tr>
<tr>
<td>BIOT 498</td>
<td>Work Experience in Biotechnology (1 - 4)</td>
<td>1</td>
</tr>
</tbody>
</table>

BIOI 102 Introduction to Concepts 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. It meets the minimum requirements for licensed vocational nursing, paramedic, gerontology, and funeral services programs. The basic anatomy and physiology of all the body systems will be covered with an emphasis on developing vocabulary in each area. Activities will include microscope work, simple physiology experiments and demonstrations, and using models and simple dissections to learn anatomy.

BIOI 115 Basic Anatomy and Physiology 3 Units

General Education: AA/AS Area IV
Hours: 54 hours LEC
This course provides instruction involving basic human anatomy and physiology of the skin, skeletal, muscular, nervous, circulatory, and lymphatic systems. It is designed for medical assistants, medical secretaries, medical transcriptionists, and hazardous materials technicians. BIOI 115 and 116 compose a complete study of the basic anatomy and physiology of the human body.

BIOI 116 Basic Anatomy and Physiology 3 Units

General Education: AA/AS Area IV
Hours: 54 hours LEC
This course provides instruction involving basic human anatomy and physiology. This course is designed for medical assisting majors, medical secretaries, and other health-related technicians. It covers body organization, basic chemistry, cells, and tissues. In addition, BIOI 116 covers respiratory, digestive, urinary, endocrine, and reproductive systems. Either BIOI 115 OR 116 may be taken first, however, both courses are necessary for a complete study of human anatomy and physiology.
This introductory laboratory course in basic human anatomy and physiology is designed to complement the lecture course BIOL 115. This course is designed for medical assistants, medical secretaries, medical transcriptionists, and hazardous materials technician majors, and other health-related technologies. It is not acceptable in most nursing and respiratory care programs.

### BIOL 117 Basic Anatomy and Physiology Lab 1 Unit

Corequisite: BIOL 115.

**Hours: 54 hours LAB**

This course is an introductory laboratory course in basic human anatomy and physiology designed to complement the lecture course BIOL 116. It is designed for medical assisting, medical records, and hazardous materials technician majors, and other health-related technology. It is not acceptable in most nursing and respiratory care programs.

### BIOL 118 Basic Anatomy and Physiology Laborator 1 Unit

Corequisite: BIOL 116.

**Hours: 54 hours LAB**

This course is an option for non-science majors introductory laboratory course in basic human anatomy and physiology. Concepts introduced in BIOL 115 are reinforced in this laboratory course. Basic cell structure, function, and physiology are covered. 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. This course is not open to students who have completed BIOL 310.

### BIOL 130 Microbiology for Funeral Services 3 Units

**Prerequisite:** CHEM 130.

**Hours: 54 hours LEC**

This course will include a survey of the basic principles of microbiology. It relates these principles to Funeral Service Education especially as they pertain to sanitation, disinfection, community health and embalming practice.

### BIOL 300 The Foundations of 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 non-science majors course 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. This course is not open to students who have completed BIOL 300.

### BIOL 310 General Biology 4 Units

**General Education:** AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B

**Course Transferable to UC/CSU**

**Hours: 54 hours LEC; 54 hours LAB**

This non-science majors laboratory course 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. This course is not open to students who have completed BIOL 300.

### BIOL 320 Field Botany 3 Units

**Course Transferable to CSU**

**Hours: 36 hours LEC; 54 hours LAB**

This course covers identification, sight recognition and ecological relationships of the major groups of organisms and a comparison of the structure and function of their cells, tissues, and organ systems. Ecology, genetics, and evolution are included. Plant and animal dissection are included as part of the laboratory activities. This course is appropriate for liberal studies, elementary education, environmental studies, recreation and other related majors. Field trips are required.

### BIOL 321 Field Ornithology 2 Units

**Course Transferable to CSU**

**Hours: 24 hours LEC; 54 hours LAB**

This course covers the biologically unique aspects of bird life. Topics include avian flight, migration, song, feeding and foraging ecology, reproduction and mating systems, social behavior, and conservation. Laboratory work explores bird structure and function, and is supplemented by required field trips where field skills are learned. Identification of avian families and common local species is accomplished by means of taxonomy and field study.

### BIOL 322 Introduction to Ornithology 2 Units

**Course Transferable to CSU**

**Hours: 24 hours LEC; 54 hours LAB**

This introductory course covers the biologically unique aspects of bird life. Topics include avian flight, migration, song, feeding and foraging ecology, reproduction and mating systems, social behavior, and conservation. Laboratory work explores bird structure and function, and is supplemented by required field trips where field skills are learned. Identification of avian families and common local species is accomplished by means of taxonomy and field study.

### BIOL 323 Field Anatomy 3 Units

**Course Transferable to CSU**

**Hours: 36 hours LEC; 54 hours LAB**

This course covers basic biological principles with emphasis on a survey of the major groups of organisms and a comparison of the structure and function of their cells, tissues, and organ systems. Ecology, genetics, and evolution are included. Plant and animal dissection are included as part of the laboratory activities. This course is appropriate for liberal studies, elementary education, environmental studies, recreation and other related majors. Field trips are required.

### BIOL 324 Field Botany 3 Units

**Course Transferable to CSU**

**Hours: 36 hours LEC; 54 hours LAB**

This course covers basic biological principles with emphasis on a survey of the major groups of organisms and a comparison of the structure and function of their cells, tissues, and organ systems. Ecology, genetics, and evolution are included. Plant and animal dissection are included as part of the laboratory activities. This course is appropriate for liberal studies, elementary education, environmental studies, recreation and other related majors. Field trips are required.

### BIOL 325 Field Entomology 3 Units

**Course Transferable to CSU**

**Hours: 36 hours LEC; 54 hours LAB**

This course covers basic biological principles with emphasis on a survey of the major groups of organisms and a comparison of the structure and function of their cells, tissues, and organ systems. Ecology, genetics, and evolution are included. Plant and animal dissection are included as part of the laboratory activities. This course is appropriate for liberal studies, elementary education, environmental studies, recreation and other related majors. Field trips are required.

### BIOL 326 Field Microbiology 3 Units

**Course Transferable to CSU**

**Hours: 36 hours LEC; 54 hours LAB**

This course covers basic biological principles with emphasis on a survey of the major groups of organisms and a comparison of the structure and function of their cells, tissues, and organ systems. Ecology, genetics, and evolution are included. Plant and animal dissection are included as part of the laboratory activities. This course is appropriate for liberal studies, elementary education, environmental studies, recreation and other related majors. Field trips are required.

### BIOL 327 Field Virology 3 Units

**Course Transferable to CSU**

**Hours: 36 hours LEC; 54 hours LAB**

This course covers basic biological principles with emphasis on a survey of the major groups of organisms and a comparison of the structure and function of their cells, tissues, and organ systems. Ecology, genetics, and evolution are included. Plant and animal dissection are included as part of the laboratory activities. This course is appropriate for liberal studies, elementary education, environmental studies, recreation and other related majors. Field trips are required.

### BIOL 328 Field Parasitology 3 Units

**Course Transferable to CSU**

**Hours: 36 hours LEC; 54 hours LAB**

This course covers basic biological principles with emphasis on a survey of the major groups of organisms and a comparison of the structure and function of their cells, tissues, and organ systems. Ecology, genetics, and evolution are included. Plant and animal dissection are included as part of the laboratory activities. This course is appropriate for liberal studies, elementary education, environmental studies, recreation and other related majors. Field trips are required.

### BIOL 329 Field Pathology 3 Units

**Course Transferable to CSU**

**Hours: 36 hours LEC; 54 hours LAB**

This course covers basic biological principles with emphasis on a survey of the major groups of organisms and a comparison of the structure and function of their cells, tissues, and organ systems. Ecology, genetics, and evolution are included. Plant and animal dissection are included as part of the laboratory activities. This course is appropriate for liberal studies, elementary education, environmental studies, recreation and other related majors. Field trips are required.

### BIOL 330 Natural History of Insects 3 Units

**Course Transferable to UC/CSU**

**Hours: 54 hours LEC**

This course provides an introduction to the science of Entomology. Approximately 75% of all known species of animals are insects, therefore, they often have a profound effect on human civilization. This class details their great variety, structures and function, habitats, and their significance to plants and animals, including humans. Opportunities for field investigations will be provided.

### BIOL 331 Introduction to Microbiology 3 Units

**Course Transferable to UC/CSU**

**Hours: 54 hours LEC**

This course covers the basic biological principles of microbiology. It relates these principles to the science of microbiology. It explores the interaction between human behavior and disease agents on the environment. This course covers some of society's historical uses of native plants. Frequent field trips and a plant collection are required.

### BIOL 332 Ethnobotany 3 Units

**General Education:** AA/AS Area VI

**Course Transferable to CSU**

**Hours: 36 hours LEC; 54 hours LAB**

This class details their great variety, structures and function, habitats, and their significance to plants and animals, including humans. Opportunities for field investigations will be provided.
**BIOL 350 Environmental 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 provides a broad overview of the natural environment using fundamental biological and ecological principles. Major topics include the cultural history of environmentalism, the role of science in investigating environmental impacts, ecosystem structure and function, and the concept of biodiversity. Human impacts on the plant and animals of forest, grassland, river, desert, tropical, marine and polar systems are covered with a specific focus on California landscapes and global biodiversity hotspots. This course provides the scientific background to analyze major global and regional environmental problems and to discuss the scientific techniques used to solve them. Field trips are required.

**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 introductory course covers biological and ecological principles involved in understanding and analyzing environmental problems and exploring scientifically sound conservation techniques. Major topics include the nature of science, population dynamics and distributions, evolution and species extinctions, biodiversity, ecosystem functions, and the interdependence between humans and our environment. This course places emphasis on scientific processes and methodology. Statewide and local environments will be highlighted. Field trips and a semester project may be required.

**BIOL 370 Introduction to Marine Environment**  4 Units  
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 54 hours LAB  
This course is an introduction to oceanography and marine biology. It includes the study of sea water, marine geology, marine algae, marine vertebrate and invertebrate animals, and the ecology of various marine zones. Field trips focusing on the Central California coast are required.

**BIOL 390 Natural History Field Study**  4-5 Units  
Course Transferable to CSU  
Hours: 24 hours LEC; 144 hours LAB  
This course covers the ecology and natural history of specific areas (mountains, deserts, tide pools, etc.). Course content will vary according to field destination but may include topics in botany, zoology, marine biology, conservation, and natural history. Field study methodology and tools may also be covered. Students will be responsible for providing their own lodging or camping equipment and meals when needed. Field trips required. This course may be taken up to four times for a maximum of eight units.

**BIOL 400 Principles of Biology**  5 Units  
Prerequisite: CHEM 400 with a grade of "C" or better  
Advisory: ENGW 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.  
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 108 hours LAB  
This is an introductory course covering biological concepts important for a general understanding and background for biology majors and pre-professional students. Emphasis is on the scientific method and basic processes common to all forms of life. Topics include cell structure and function, cell physiology, cell reproduction, Mendelian and molecular genetics, evolution, and ecology.

**BIOL 410 Principles of Botany**  5 Units  
Prerequisite: BIOL 400 with a grade of "C" or better  
General Education: CSU Area B2; CSU Area B3; IGETC Area 5B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 108 hours LAB  
This course covers the general principles of botany for science majors. The emphasis is on anatomy, morphology, life cycles, embryology and physiology of plants and a plant kingdom survey. All laboratory work includes instructor directed lecture-discussions consisting of an introduction and analysis of the data and idea covered. One field trip is required.

**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  
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, genetics, systematics, and comparative anatomy and physiology. One or two field trips per semester are required.

**BIOL 430 Anatomy and Physiology**  5 Units  
Prerequisite: CHEM 305, 309, or 400 with a grade of "C" or better  
General Education: AA/AS Area IV; CSU Area B2 and B3; IGETC Area 5B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 108 hours LAB  
This course covers the principles of human anatomy and physiology, emphasizing the integration of structure and function. The topics covered are anatomical terminology, chemistry, cells, histology, articulations, and the integumentary, skeletal, muscular and nervous systems. Both BIOL 430 and BIOL 431 must be taken to study all of the major body systems.

**BIOL 431 Anatomy and Physiology**  5 Units  
Prerequisite: BIOL 430 with a grade of "C" or better  
General Education: AA/AS Area IV  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 108 hours LAB  
This course covers the principles of human anatomy and physiology, emphasizing the integration of structure and function. It includes the following systems: cardiovascular, lymphatic, respiratory, digestive, urinary, endocrine and reproductive. Both BIOL 430 and 431 must be taken to study all of the major body systems.

**BIOL 440 General Microbiology**  4 Units  
Prerequisite: CHEM 305, 309, 310, or 400 with a grade of "C" or better  
General Education: CSU Area B2; CSU Area B3; IGETC Area 5B  
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 Bacteriology**  5 Units  
Prerequisite: CHEM 305, 310, or 400 with a grade of "C" or better  
General Education: CSU Area B2; CSU Area B3; IGETC Area 5B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 108 hours LAB  
This course provides a survey of bacteria and viruses, examining their cellular and molecular structure, physiology, metabolism, and genetics. Laboratory work introduces methods for cultivating and characterizing microorganisms and explores the properties of microorganisms in various habitats.
BIOL 460  Biology of Cancer  3 Units
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a biological introduction to cancer which covers topics such as the pathology of cancer, the types of cancer, causes of cancer due to natural or environmental causes, methods of identifying cancer, cancer treatment and the psychological and social impact of cancer on its victims, their families, and society.

BIOL 468  Mammals of Africa  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course covers the evolutionary adaptation of African mammals to their environment. Topics include some of the unique types of biological traits that mammals have to survive in the Serengeti ecosystem. The physiology, behavior and physiques of various mammalian groups such as primates, antelopes, elephants, and large cats will be covered. Conservation issues of the Serengeti ecosystem will be an integral part of this course.

BIOL 480  Biology/Chemistry Honors Seminar  1 Unit
Same As: CHEM 482
Prerequisite: Cumulative GPA of 3.0 or above; CHEM 400 and BIOL 400 with a grade of “C” or better; ENGWR 300 or 480 with a grade of “C” or better.
Course Transferable to CSU
Hours: 18 hours LEC
This honors section will provide a seminar approach for advanced students of general chemistry and biology to discuss and analyze in-depth recent scientific articles in terms of the chemical and biological principles introduced in these curricula. Not open to students who have taken CHEM 482. May be taken two times for credit.

BIOL 482  Honors Introduction to Marine Environment  4 Units
Prerequisite: Cumulative GPA of 3.0 or above; ENGWR 300 or 480 with a grade of “C” or better.
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC, 54 hours LAB
This course is an honors level introduction to oceanography and marine biology. Using a seminar style, it explores sea water, marine geology, marine algae, marine vertebrate and invertebrate animals, and the ecology of various marine zones. Field trips focusing on inter-tidal organisms of the Central California Coast are required. 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 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. A partial list of skills may include the following: textbook comprehension, principle of learning and retention, note taking, annotating, discipline-based vocabulary, paraphrasing, reading graphics, test taking, and problem solving. Registration is open through the twelfth week of the semester. This course may be taken four times. Credit/No Credit only.

**Biotechnology**

BIOT 300  Introduction to Biotechnology  4 Units
Prerequisite: BIOL 310 or 400, CHEM 305 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC, 54 hours LAB
This course provides the necessary biochemistry, genetics and molecular biology principles that constitute the foundation for training in the field of biotechnology. Topics covered will include recombinant DNA technology; DNA production, characterization and analysis; PCR methodologies. Emphasis in lab and theory skills.

BIOT 305  Introduction to Bioinformatics  1 Unit
Prerequisite: BIOT 310 or 400 with a grade of “C” or better. Advisory: BIOT 300 and CIS 305.
Course Transferable to CSU
Hours: 14 hours LEC, 14 hours LAB
This course includes topics on biology databases, search and retrieval programs, structure/function analysis of biological molecules, DNA sequence alignment and analysis, and applications of these technologies.

BIOT 306  Computer Applications in Bioinformatics  3 Units
Prerequisite: BIOT 305 with a grade of “C” or better.
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course introduces computation concepts and methods used in bioinformatics. It addresses issues in genomics and proteomics, such as sequence alignment, gene recognition and regulation, and protein modeling. The course examines software and programming tools used to access and manipulate biological database information, especially nucleic acid and protein data.

BIOT 307  Biotechnology and Society  2 Units
Course Transferable to UC/CSU
Hours: 36 hours LEC
This course focuses on the emerging impact of biotechnology on society. Basic concepts in biotechnology are introduced in a non-technical manner to explore advances in medicine, agriculture, and other fields. Public perception and ethical issues in biotechnology are also emphasized.

BIOT 310  Polymerase Chain Reaction (PCR) Methods  1 Unit
Prerequisite: BIOT 300 with a grade of “C” or better.
Course Transferable to CSU
Hours: 14 hours LEC, 14 hours LAB
This course provides training in techniques involving the polymerase chain reactions (PCR). Topics include PCR protocols, troubleshooting, and applications to medicine, forensics, and agriculture.

BIOT 315  Methods in Biotechnology  5 Units
Prerequisite: BIOT 300 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC, 108 hours LAB
This course provides specialized laboratory skills and theory in biotechnology. Topics include aseptic technique, preparation of media and solutions, methods in bacteria and plant tissue culture, isolation and analysis of nucleic acids and proteins, good laboratory practice and quality control.

BIOT 498  Work Experience in Biotechnology  1-2 Units
Prerequisite: BIOT 300 with a grade of “C” or better.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 9 hours LEC, 60 hours LAB
This course provides directed work experience in the biotechnology industry with the purpose of applying classroom instruction to the biotechnology workplace. Class enrollment is dependent upon availability of paid or volunteer work experience in a biotechnology-related environment.
Business Transfer Degree

This business degree program is designed for those who plan to transfer to a four-year university. It meets the common core of lower-division courses required by most colleges and universities. The program includes coursework that is essential for entry-level positions and enhances the knowledge base of those who are seeking career progression.

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, market research, office assistant, public administration, purchasing agent, retail/industrial sales, stockbroker.

Requirements for Degree 37 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law (3)</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 345</td>
<td>Law and Society (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</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>MATH 340</td>
<td>Calculus for Business and Economics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 342</td>
<td>Modern Business Mathematics (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 301</td>
<td>Introduction to Probability and Statistics</td>
<td>3</td>
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</table>

And a minimum of 7 units from the following: 7

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 341</td>
<td>Accounting on the Microcomputer (2)</td>
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</tr>
<tr>
<td>BUS 320</td>
<td>Concepts in Personal Finance (3)</td>
<td></td>
</tr>
<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace (3)</td>
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</tr>
<tr>
<td>CISA 318</td>
<td>Exploring Spreadsheet Software (1)</td>
<td></td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management (1)</td>
<td></td>
</tr>
<tr>
<td>CISA 330</td>
<td>Desktop Publishing (2)</td>
<td></td>
</tr>
<tr>
<td>CISC 308</td>
<td>Exploring Computer Environments and the Internet (1)</td>
<td></td>
</tr>
<tr>
<td>CISC 350</td>
<td>Introduction to Data Communications (1)</td>
<td></td>
</tr>
<tr>
<td>or CISC 305</td>
<td>Introduction to the Internet (1)</td>
<td></td>
</tr>
<tr>
<td>MGMT 304</td>
<td>Introduction to Management Functions (3)</td>
<td></td>
</tr>
<tr>
<td>or MGMT 300</td>
<td>Introduction to Modern Management (3)</td>
<td></td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing (3)</td>
<td></td>
</tr>
</tbody>
</table>

Associate Degree Requirements: The Business Transfer 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 Degree

The General Business A.A. 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.

Requirements for Degree 40-41 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
<td>3 - 4</td>
</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</td>
<td>3</td>
</tr>
<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>BUS 330</td>
<td>Managing Diversity in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law (3)</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 345</td>
<td>Law and Society (3)</td>
<td></td>
</tr>
<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>MGMT 304</td>
<td>Introduction to Management Functions</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing (3)</td>
<td></td>
</tr>
</tbody>
</table>

And a minimum of 9 units from the following: 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS courses not used to fulfill other requirements for the degree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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.

Requirements for Certificate 24-25 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</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>
<td></td>
</tr>
<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>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>Introduction to Management Functions</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing (3)</td>
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</table>

And a minimum of 5 units from the following: 5

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 210</td>
<td>The Business Plan (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 214</td>
<td>Financing a Small Business (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 216</td>
<td>Essential Records for the Small Business (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 218</td>
<td>Management Skills for the Small Business (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 224</td>
<td>Customer Service (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace (3)</td>
<td></td>
</tr>
<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td></td>
</tr>
</tbody>
</table>
Business

Small Business Management Degree

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.

Requirements for Degree 33-34 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</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>
<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</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>Introduction to Management Functions (3)</td>
<td></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 Accounting on the Microcomputer (2)
- ACCT 343 Computer Spreadsheet Applications for Accounting (2)
- BUSTEC 305 Introduction to Office Technology (1)
- BUSTEC 310 Introduction to Word/Information Processing (1 - 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 226 Loss Prevention and Security (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

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.

Requirements for Certificate 24-25 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</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>
<td></td>
</tr>
<tr>
<td>BUS 210</td>
<td>The Business Plan</td>
<td>1</td>
</tr>
<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses</td>
<td>1</td>
</tr>
<tr>
<td>BUS 214</td>
<td>Financing a Small Business</td>
<td>1</td>
</tr>
<tr>
<td>BUS 216</td>
<td>Essential Records for the Small Business</td>
<td>1</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>CISC 300</td>
<td>Computer Familiarization</td>
<td>1</td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 7 units from the following: ... 7

- ACCT 121 Payroll Accounting (3)
- ACCT 341 Accounting on the Microcomputer (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 226 Loss Prevention and Security (1)
- BUS 228 Selling Techniques for the Small Business (1)
- MKT 312 Retailing (3)
- MKT 314 Advertising (3)

Any CIS course

BUS 100 English for the Professional 3 Units

Prerequisite: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310 with a grade of “C” or better; or placement through the assessment process.

Advisory: BUSTEC 300.

Hours: 54 hours LEC

This course is designed to prepare the student for business communication. It presents principles of correct and effective English usage as applied in business. Included are skills and techniques of written communication, sentence structure, word usage, punctuation, spelling, business vocabulary, and business document formatting. Emphasis is placed on critical thinking and effective writing techniques by analyzing written communication and composing and organizing paragraphs into effective business documents. Proofreading skills are stressed throughout the course. This course is required of all business technology majors and recommended for all business majors.

BUS 105 Business Mathematics 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; or placement through assessment process.

General Education: AA/AS Area II(b)

Hours: 54 hours LEC

This course is a review of basic mathematical skills and introduces equations and formulas in solving for unknowns. Applications of mathematics in business include such areas as banking, commercial discounts, retail and wholesale markup/markdown, payroll computations, simple and compound interest, bank discount, present value, taxes, insurance, depreciation, and financial statements. Recommended and useful for every major in business.

BUS 110 Business Economics 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; or placement through assessment process.

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 will be covered with the emphasis towards applications. Does not meet ECON 302 or 304 requirements for transfer students.

BUS 150 Retail/Wholesale Operations Management 3 Units

Advisory: MKT 300 and 312.

Hours: 54 hours LEC

This is a specialized course for those in the marketing distribution system at either the wholesale or retail level. Purchasing, transportation, storage, pricing, asset management, and information management are a few of the topics covered.
BUS 210  The Business Plan  1 Unit
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310; BUS 105, 350
Hours: 18 hours LEC
This course offers an organized, step-by-step approach to preparing a business plan. The plan will enable students to solve problems "on paper" before they become operational or money problems. Students will create a business plan as part of the course.

BUS 212  Marketing for Small Businesses  1 Unit
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310; BUS 105, 350.
Hours: 18 hours LEC
This course emphasizes how a small business or non-profit organization can market its service or product to the consumer. The student will learn about ways to improve market mix, identify target markets, and develop a marketing plan.

BUS 214  Financing a Small Business  1 Unit
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310; BUS 105, 350.
Hours: 18 hours LEC
This course covers sources and ways of raising capital for small businesses. It will explore how much money is needed and where it can be obtained, start-up costs, and projecting monthly and yearly costs. Financial ratios and key financial statements are also covered.

BUS 216  Essential Records for the Small Business  1 Unit
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310; BUS 105, 350.
Hours: 18 hours LEC
This course emphasizes the various types of records that small businesses must keep. The focus will be upon financial, employment, and tax records. Simple, easy-to-use record-keeping systems will be covered.

BUS 218  Management Skills for the Small Business  1 Unit
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310; BUS 105, 350.
Hours: 18 hours LEC
A small business owner must understand and motivate others to help the business reach its objectives. This course covers such functions as planning and organizing work flow, delegating responsibilities, understanding leadership styles, decision making, stress and time management, and working with employee organizations.

BUS 220  Retailing and Merchandising for the Small Business  1 Unit
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310; BUS 105, 350.
Hours: 18 hours LEC
This course will emphasize retailing concepts, such as inventory control and turnover rates, selecting merchandise sources, using trade and cash discounts, pricing, markup and markdown, and shrinkage control. Students will also learn how to develop a merchandising plan, inventory control system, and assess consumer behavior and demographics.

BUS 222  Loss Prevention and Security  1 Unit
Prerequisite: BUS 350.
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310; BUS 105.
Hours: 18 hours LEC
This course focuses on the procedures in developing a loss prevention program. Such topics as store design, employee training, and the use of loss detection devices will be introduced. Local laws relating to shoplifting will be presented and explained.

BUS 224  Customer Service  1 Unit
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310; BUS 105, 350.
Hours: 18 hours LEC
This course is a study of the principles involved in building an effective customer service team. Customer service activities in business, government, and other service industries will be examined so that improved customer service will be emphasized.

BUS 228  Selling Techniques for the Small Business  1 Unit
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310; BUS 350, MKT 300.
Hours: 18 hours LEC
This class will focus on those skills that will aid an individual to become a professional salesperson. The skills presented will be those that will aid both product and service salespeople. This course is recommended for anyone who might have to use some sales techniques in any business, industry, or government position.

BUS 230  QuickBooks (R) for Small Business  1 Unit
Same As: ACCT 141.
Advisory: ENGWR 102 or ENGWR 103, or ESLR 320 and ESLW 320; BUS 350.
Hours: 18 hours LEC
This class will emphasize the use of QuickBooks (R) to aid the small business owner in creating financial statements and other financial reports. Not open for students who have taken Accounting 141.

BUS 240  Call Center Customer Service  3 Units
Hours: 54 hours LEC
This course is designed to provide an understanding of customer service and methods for practicing the same in the modern contact center environment. Course topics include: Defining customer service, types of customers, the value of a customer to a business, establishing rapport and dealing with difficult co-workers, customers and situations. The course also introduces the contact center via the Virtual Call Center Simulator (VCCS), client calls, responses, data entry and a number of additional simulated call center situations.

BUS 241  Call Center Operations  2 Units
Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320.
Hours: 36 hours LEC
This course is designed to provide an understanding of the call and contact center environment, what it means to be a customer service representative (CSR), and how to efficiently use the phone to maximize your effectiveness as a CSR. Course topics include various types of call centers and how each differs in goal and function, and mastering the use of the phone as a CSR tool.

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 operation of multi-national corporations.

BUS 254  Topics in Business  .5-.4 Units
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310.
Hours: 54 hours LEC; 108 hours LAB
Individualized topics are developed in cooperation with business and industry to meet specialized training needs. Topics may be selected from accounting, business, computer science, management, marketing, office administration and real estate. Maximum of six units. Topics may not be repeated.
BUS 300  Introduction to Business  3 Units
Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320.
General Education: AA/AS Area V(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey class for those commencing studies in any business field. It will survey the primary majors in business such as Management, Marketing, Finance, Accounting, Computer Information Science, and Business Law. Topics will also cover the many environments of business such as business ethics, community concerns, pollution, and many other areas.

BUS 310  Business Communications  3 Units
Prerequisite: BUS 100 or ENGWR 102 with a grade of “C” or better; or placement through the assessment process.
Advisory: BUSTEC 300
General Education: AA/AS Area II(a)
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on the concepts, 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 analytical skills, graphics, and the ability to draw conclusions and make recommendations is required. An oral business presentation with visuals is prepared and delivered.

BUS 320  Concepts in Personal Finance  3 Units
Same As: ECON 320
Advisory: ENGWR 051 and ENGRD 015; OR ESLR 310 and ESLW 310; AND BUS 105.
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 is designed to assist individuals to analyze their financial affairs for lifelong decision making. Elements and conceptual basis of financial planning and the analysis and decision making in areas of budgeting, taxes, borrowing, money management, insurance, investments, and retirement will be examined. Not open to students who have completed ECON 320.

BUS 330  Managing Diversity in the Workplace  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; OR placement through assessment process.
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. A primary focus is placed upon the workplace impact of various historical, social, and cultural experiences/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 340  Business Law  3 Units
Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320.
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. (CAN BUS 8) (CAN BUS 12).

BUS 345  Law and Society  3 Units
Same As: POLS 332
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
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 an introduction to the Anglo-American Common Law System with emphasis upon the nature and purpose of law. The evolution of legal concepts as a reflection of the social environment, and the basic organization and functioning of the American judicial system will be presented from a theoretical rather than a practical view point through analysis of selected cases and reading materials. This course is not open to students who have completed POLS 332.

BUS 350  Small Business Management/Entrepreneurship  3 Units
Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320.
Course Transferable to CSU
Hours: 54 hours LEC
This class provides an overview of the various elements involved in starting and operating a small business. It introduces such topics as developing a business plan, finding financial resources, developing personal and business goals, meeting legal requirements, understanding marketing concepts, and other topics of interest to the entrepreneur.

BUS 498  Work Experience in Business  1-4 Units
Prerequisite: Current employment or volunteer position.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 72 hours LEC
Supervised work experience in business for the purpose of increasing student’s understanding of the nature and scope of the operation of business, government or service agencies. Class enrollment is dependent upon student being in a paid or volunteer work experience learning environment. May be repeated for credit.
Administrative Assistant Degree

The administrative assistant associate degree program 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.

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 Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 110</td>
<td>Business Procedures for Professional Success</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></td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td>1</td>
</tr>
<tr>
<td>CISA 127</td>
<td>Introduction to Electronic Spreadsheets (1)</td>
<td>2</td>
</tr>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting (4)</td>
<td>3</td>
</tr>
<tr>
<td>CISA 126</td>
<td>Outgoing: Tools (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 101</td>
<td>Outlook: Tools (1)</td>
<td>1</td>
</tr>
<tr>
<td>BUS 100</td>
<td>English for the Professional</td>
<td>3</td>
</tr>
<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 315</td>
<td>Introduction to Database Management</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 110</td>
<td>Business Procedures for Professional Success</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 126</td>
<td>Outlook: Basics (1)</td>
<td></td>
</tr>
<tr>
<td>CISA 127</td>
<td>Outlook: Tools (1)</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 313</td>
<td>Presentations for the Business Professional</td>
<td>2</td>
</tr>
<tr>
<td>BUSTEC 332</td>
<td>Integrated Business Projects</td>
<td>3</td>
</tr>
<tr>
<td>CISA 316</td>
<td>Intermediate Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>CISA 321</td>
<td>Intermediate Database Management</td>
<td>1</td>
</tr>
<tr>
<td>CISC 306</td>
<td>Introduction to Web Page Creation</td>
<td>1</td>
</tr>
<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>Introduction to Management Functions</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 300</td>
<td>Beginning Keyboarding/Application (1 - 3)</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing (1 - 3)</td>
<td>3</td>
</tr>
</tbody>
</table>

Associate Degree Requirements: The Administrative Assistant 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.

Administrative Assistant Certificate

This certificate develops interpersonal, organizational, and technical skills for advancement in administrative support and office management positions. Course topics include verbal and written communication, document processing, office technology, office procedures, organizational and time management skills, supervision, critical thinking, and problem solving.

Degrees: A.A. - Administrative Assistant
A.A. - Office Administration

Certificates: Administrative Assistant
Law Office Assistant
Office Administration
Office Assistant
Office Careers - Fast Track
Office Technology
Virtual Office Professional

Career Opportunities

Typical career opportunities include clerical, administrative support, and executive assistant positions within private industry, non-profit organizations, and government entities.

Requirements for Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
<td></td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 101</td>
<td>Computer Keyboarding: 10-Key</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 110</td>
<td>Business Procedures for Professional Success</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 127</td>
<td>Outlook: Tools (1)</td>
<td>1</td>
</tr>
<tr>
<td>or CISA 127</td>
<td>Outlook: Tools (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td>1</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
<td>2</td>
</tr>
<tr>
<td>or CISA 320</td>
<td>Introduction to Database Management</td>
<td>1</td>
</tr>
<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 304</td>
<td>Introduction to Management Functions</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 2 units from the following:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 300</td>
<td>Beginning Keyboarding/Application (1 - 3)</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 2 units from the following:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing (1 - 3)</td>
<td>3</td>
</tr>
</tbody>
</table>

Law Office Assistant

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.

Career Opportunities

Typical career opportunities are entry-level clerical positions in a law office.

Requirements for Certificate

<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 350</td>
<td>Law Office Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 100</td>
<td>Keyboarding Skills (1 - 3)</td>
<td>1 - 3</td>
</tr>
<tr>
<td>or BUSTEC 300</td>
<td>Beginning Keyboarding/Applications (1 - 3)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 122</td>
<td>Workplace Behavior and Communication Technologies</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>

1A total of 3 units from these courses must be taken.
2Must be taken for 3 units.

Office Administration Degree

This degree in Office Administration offers workplace skills for today’s businesses. The course work focuses on business documents and correspondence, effective writing, financial statements, oral presentation skills, workflow, productivity, and ethical business behavior. A variety of courses in management, computer information science, and business is required.
### Career Opportunities

Typical career opportunities include titles such as office administrator, office assistant, office associate, office clerk, office manager, office support, and office planner.

### Requirements for Degree  29-30 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or ACCT 301</td>
<td>Financial Accounting</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>
</tr>
<tr>
<td>BUSTEC 101</td>
<td>Computer Keyboarding: 10-Key</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 110</td>
<td>Business Procedures for Professional Success</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 126</td>
<td>Outlook: Basics (1)</td>
<td></td>
</tr>
<tr>
<td>or CISA 126</td>
<td>Outlook: Basics (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 127</td>
<td>Outlook: Tools (1)</td>
<td></td>
</tr>
<tr>
<td>or CISA 127</td>
<td>Outlook: Tools (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 313</td>
<td>Presentations for the Business Professional</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 322</td>
<td>Integrated Business Projects</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 332</td>
<td>Integrated Business Projects</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 300</td>
<td>Beginning Keyboarding/Applications</td>
<td>1 - 3</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>

**Associate Degree Requirements:** The Office Administration 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.

### Office Administration Certificate

This certificate provides the skills needed for entry-level office positions in business and industry. The course work emphasizes workforce skills in generating financial statements, formatting business correspondence, writing effectively, organizing business information, communicating with individuals, and working on teams.

### Career Opportunities

Typical career opportunities include titles such as office administrator, office assistant, office associate, office clerk, office manager, office support, and office planner.

### Requirements for Certificate  21-22 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or ACCT 301</td>
<td>Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>BUS 100</td>
<td>English for the Professional</td>
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<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 101</td>
<td>Computer Keyboarding: 10-Key</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 110</td>
<td>Business Procedures for Professional Success</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 122</td>
<td>Workplace Behavior and Communication Technologies.....</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 126</td>
<td>Outlook: Basics (1)</td>
<td></td>
</tr>
<tr>
<td>or CISA 126</td>
<td>Outlook: Basics (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 300</td>
<td>Beginning Keyboarding/Application</td>
<td>1 - 3</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>

### Office Assistant Certificate

This certificate provides training in clerical procedures for entry-level office positions.

### Career Opportunities

Typical career opportunities are entry-level clerical positions.

### Requirements for Certificate:  7 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSTEC 125</td>
<td>Office Assistant Training</td>
<td>7</td>
</tr>
</tbody>
</table>

### Office Careers: Fast Track Certificate

This fast track certificate offers the skills necessary to be successful in office careers. The course work includes mastering basic technology skills, identifying and developing interpersonal skills for the workplace, and exploring career opportunities through an internship or work experience program.

### Career Opportunities

Typical career opportunities include titles such as office assistant, office clerk, office manager, and office support.

### Requirements for Certificate  23 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></td>
</tr>
<tr>
<td>BUS 101</td>
<td>Computer Keyboarding: 10-Key</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 122</td>
<td>Workplace Behavior and Communication Technologies.....</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 126</td>
<td>Outlook: Basics (1)</td>
<td></td>
</tr>
<tr>
<td>or CISA 126</td>
<td>Outlook: Basics (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 350</td>
<td>Virtual Office Careers and Technologies</td>
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</tr>
<tr>
<td>BUS 498</td>
<td>Work Experience in Business</td>
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</tr>
<tr>
<td>BUSTEC 300</td>
<td>Beginning Keyboarding/Applications</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td></td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 100</td>
<td>Keyboarding Skills</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 127</td>
<td>Outlook: Tools (1)</td>
<td></td>
</tr>
<tr>
<td>or CISA 127</td>
<td>Outlook: Tools (1)</td>
<td></td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management (1)</td>
<td></td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics (2)</td>
<td></td>
</tr>
<tr>
<td>CISC 305</td>
<td>Introduction to the Internet (1)</td>
<td></td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems (1)</td>
<td></td>
</tr>
</tbody>
</table>

### Office Technology Certificate

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.

### Requirements for Certificate  18 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 101</td>
<td>Computer Keyboarding: 10-Key</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 110</td>
<td>Business Procedures for Professional Success</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 126</td>
<td>Outlook: Basics (1)</td>
<td></td>
</tr>
<tr>
<td>or CISA 126</td>
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<td></td>
</tr>
<tr>
<td>BUSTEC 127</td>
<td>Outlook: Tools (1)</td>
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</tr>
<tr>
<td>or CISA 127</td>
<td>Outlook: Tools (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 332</td>
<td>Integrated Business Projects</td>
<td></td>
</tr>
</tbody>
</table>
BUSTEC 300 Beginning Keyboarding/Applications (1 - 3)

And a minimum of 3 units from the following: ................................. 3
BUSTEC 310 Introduction to Word/Information Processing (1 - 3)
BUSTEC 313 Presentations for the Business Professional (2)
CISC 300 Computer Familiarization (1)
CISC 306 Introduction to Web Page Creation (1)

Virtual Office Professional Certificate
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.

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: 15-17 Units

BUSTEC 100 English for the Professional (3) ................................. 3
or BUS 310 Business Communications (3)

BUSTEC 110 Business Procedures for Professional Success (3) .......... 3
or BUSTEC 122 Workplace Behavior and Communication Technologies (3)

BUSTEC 126 Outlook: Basics 1 Unit
or CISA 126

BUSTEC 127 Outlook: Tools 1 Unit
Same As: CISA 127

BUSTEC 110 Business Procedures for Professional Success 3 Units
Prerequisite: BUSTEC 300 with a grade of “C” or better.
Corequisite: BUS 310.
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 122 Workplace Behavior and Communication Technologies 3 Units
Advisory: BUSTEC 300, ENGRD 15, and ENGRWR 51.
Hours: 54 hours LEC
This course introduces basic procedures that promote effective workplace practices. Specific topics include working with the office team, communicating effectively, problem solving, preparing and processing information using technology, and developing a portfolio. This course emphasizes activities and techniques that develop competencies needed in the global workplace.

BUSTEC 125 Office Specialist 6 Units
Corequisite: BUSTEC 101
Advisory: ENGRWR 102 or ENGRWR 103 and ENGRWR 116 or ESLR 320 and ESLW 320
Hours: 96 hours LEC; 54 hours LAB
This course covers the skills needed for office specialist positions. The content includes computer keyboarding, word processing, and spreadsheet applications; alphabetic filing; office procedures and communications, including telephone, mail, email, and Internet; human relations; and employment resources. A department certificate is granted upon successful completion of all course segments.

BUSTEC 100 Keyboarding Skills 1-3 Units
Advisory: BUSTEC 300, or ability to touch type.
Hours: 36 hours LEC; 54 hours LAB
This course is designed for individuals with keyboarding skills (ability to touch type) who want to improve their speed and accuracy. Individualized skill improvement plans are based on computerized assessment of keyboarding speed and accuracy. Enroll any time throughout the semester. Earn one unit of credit for each module successfully completed. Certification testing is available. Individuals interested in beginning keyboarding should enroll in BUSTEC 300. Credit/No Credit only.

BUSTEC 101 Computer Keyboarding: 10-Key 1 Unit
Advisory: BUSTEC 300.
Hours: 12 hours LEC; 18 hours LAB
This course introduces the numeric keypad and develops the ability to key information into a computer with speed and accuracy. Simulated employment tests based on industry standards are included. 10-key certification testing is completed at the end of the course.

BUSTEC 290 Business Workshop 3 Units
Advisory: BUSTEC 313.

BUSTEC 105 Business English 3 Units
Advisory: BUSTEC 313.

BUSTEC 115 Business Calculations 1 Unit
Advisory: BUSTEC 313.

BUSTEC 124 Business Communications 1 Unit
Advisory: BUSTEC 313.

BUSTEC 128 Business Technology 3 Units
Advisory: BUSTEC 313.

BUS 100 English for the Professional (3)

BUS 101 Computer Keyboarding: 10-Key (1)

BUS 310 Business Communications (3)

CISC 300 Computer Familiarization (1)

CISC 306 Introduction to Web Page Creation (1)

1 Individuals who hold a certificate as a Certified Professional Secretary (CPS) or Certified Administrative Professional (CAP) may receive credit for this option with evidence of completion of the CPS or CAP certification.

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BUSTEC 300   Beginning Keyboarding/Applications   1-3 Units
Advisory: ENGW 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: 36 hours LEC; 54 hours LAB
This course provides computer training for employment or personal use. Module one covers keyboarding and skill development techniques. Modules two and three introduce Microsoft Word (word processing software) and basic formats for business correspondence - memorandums, letters, e-mail, tables, and reports. Students may enroll at any time during the semester and earn one unit of credit for each module successfully completed.

BUSTEC 305   Introduction to Office Technology   1 Unit
Advisory: BUSTEC 300.
Course Transferable to CSU
Hours: 18 hours LEC
This course focuses on the integration of office technology and business skills in the work environment. Topics include hardware and software; e-mail, voice, and fax communications; electronic calendars and scheduling; Internet resources; and the virtual office. This is an introductory course recommended for all business students.

BUSTEC 310   Introduction to Word/Information Processing   1-3 Units
Prerequisite: BUSTEC 300 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, Internet documents, and other business-related documents. Related topics include integrated office applications, macros, managing multiple-user documents, and e-mail. This course is divided into three one-unit modules. Units earned in this course are based on modules successfully completed. This course may be taken four times on different modules or software packages/versions for a maximum of six units.

BUSTEC 313   Presentations for the Business Professional   2 Units
Advisory: BUS 310; 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. 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 310; CISA 320.
Course Transferable to CSU
Hours: 54 hours LEC
This course integrates office administration skills using the Microsoft Office suite. 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 are based on current office systems and incorporate problem-solving skills and real world business simulations.

BUSTEC 350   Virtual Office Careers and Technologies   3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course explores careers in the virtual office and identifies techniques and technologies needed by virtual office workers. Specific topics include types of virtual offices, technologies and skills needed in a virtual office, ways to establish and manage a virtual office, effective communication, and job opportunities. This course also examines issues for career preparation in a virtual environment.
American River College's chemistry program provides a series of courses designed to meet transfer requirements for physical and biological science majors as well as students majoring in other fields of study.

**Chemistry for Funeral Services** 4 Units
Advisory: ENGRD 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 337 with a grade of “C” or better; OR placement through assessment process.

**Introduction to Chemistry** 5 Units
Prerequisite: MATH 100 with a grade of “C” or better
Advisory: ENGRD 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 337 with a grade of “C” or better; OR placement through assessment process.

**Introduction to Chemistry** 5 Units
Prerequisite: MATH 305 with a grade of “C” or better
Advisory: ENGRD 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 337 with a grade of “C” or better; OR placement through assessment process.

**Chemical Calculations** 4 Units
Prerequisite: MATH 100 with a grade of “C” or better
Corequisite: MATH 120
Advisory: ENGRD 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 337 with a grade of “C” or better; OR placement through assessment process.

**Chemistry in the Kitchen** 3 Units
This course qualitatively covers a variety of chemical principles in the context of cooking. These principles include basic atomic structure and geometry, phase changes, acids and bases, proteins and denaturing, fermentation, fats and carbohydrates. This course is designed for K-6 educators who want to increase their understanding of chemistry principles. Many of the topics are keyed to the new California State Science Standards.

**General Chemistry** 5 Units
Prerequisite: MATH 120 with a grade of “C” or better and one of the following: 1) CHEM 310 with a grade of “C” or better 2) Or CHEM 305 with a grade of “C” or better and placement through the chemistry assessment process 3) Or High School chemistry with a grade of “C” or better and placement through the chemistry assessment process
Advisory: ENGRD 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 337 with a grade of “C” or better; OR placement through assessment process.

**General Education:**
AAAS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB

**Pollution, Poisons, and Planet Earth** 4 Units
Advisory: MATH 32; ENGRD 116 or ESLR 320
General Education: AAAS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB

This course describes the fundamental concepts of general, organic, and biological chemistry as they relate to human-made and natural pollution and poisons in the environment. The laboratory part of the course is designed to highlight current topics in environmental chemistry, investigate indicators of a healthy or polluted environment, and to investigate the effects of toxic chemicals on living systems. Field trips are required.
CHEM 401  General Chemistry  5 Units
Prerequisite: CHEM 400 with a grade of “C” or better
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
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.

CHEM 410  Quantitative Analysis  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 quantitative analytical chemistry course emphasizes the theory and practice of gravimetric, volumetric, potentiometric, spectrophotometric and chromatographic methods of analysis. The course focuses on calibration, standardization, method development and validation procedures, sampling, and data handling. This course is for chemistry, biochemistry, chemical engineering, pharmacy, biology, molecular biology, and microbiology majors. (CAN CHEM 12)

CHEM 420  Organic Chemistry  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 primarily for chemistry, chemical engineering, premedical, pharmacy and other majors who require a more intensive course than CHEM 423. Emphasis is on the application of modern principles regarding structure, reactivity, methods of synthesis and physical properties of carbon compounds.

CHEM 421  Organic Chemistry  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, UV-VIS spectrometry, and carbon-13 NMR. Special attention is given to development of reaction mechanisms, methods of organic synthesis and instrumental analysis as it applies to organic chemistry.

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
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
This course is an introductory survey of the compounds of carbon with emphasis on those of biological interest, 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, and chiropractics.

CHEM 430  Molecular Modeling  1 Unit
Prerequisite: CHEM 401 with a grade of “C” or better.
Advisory: CHEM 420 or 423.
Course Transferable to CSU
Hours: 12 hours LEC; 27 hours LAB
This computer based course will cover a variety of topics involving molecular modeling and simulations. Some of the topics to be covered include reaction mechanisms, thermo chemistry, electrophilic and nucleophilic substitutions, complexes, and spectroscopy.
Computer Science Degree

This program is 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 as is required by most university computer science programs.

Requirements for Degree 36 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>CISP 310</td>
<td>Assembly Language Programming for Microcomputers</td>
<td>4</td>
</tr>
<tr>
<td>CISP 360</td>
<td>Introduction to Structured Programming</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>CISP 453</td>
<td>Introduction to Systems Programming in UNIX</td>
<td>4</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

The Computer Networking Management 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:

- 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.

Career Opportunities

The Network Management degree is designed for career/technical students who plan to enter the work force as well as to upgrade the skill set of working IT professionals. The degree and its three concentrations are formulated with advice from business and industry representatives and conform to industry standards. Typical jobs a student could expect to fill would be network technical support staff, network administrators, network designers, network systems engineer, network troubleshooters, and information systems security specialists.

Core Requirements for Degree 25-26 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
<td>4</td>
</tr>
<tr>
<td>or BUS 300</td>
<td>Introduction to Business (3)</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 300</td>
<td>College Composition (3)</td>
<td>3</td>
</tr>
<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>CIS 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CIS 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CIS 350</td>
<td>Introduction to Data Communications</td>
<td>1</td>
</tr>
<tr>
<td>CIS 361</td>
<td>Microcomputer Support Essentials - Preparation A+</td>
<td>3</td>
</tr>
<tr>
<td>and a minimum of 1 unit from the following:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>and a minimum of 3 units from the following:</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 300</td>
<td>Beginning Keyboard/Applications (1 - 3)</td>
<td>1</td>
</tr>
<tr>
<td>CISA 126</td>
<td>Outlook: Basics (1)</td>
<td>1</td>
</tr>
<tr>
<td>or BUSTEC 126</td>
<td>Outlook: Basics (1)</td>
<td>1</td>
</tr>
<tr>
<td>and CISA 127</td>
<td>Outlook: Tools (1)</td>
<td>1</td>
</tr>
<tr>
<td>or BUSTEC 127</td>
<td>Outlook: Tools (1)</td>
<td>1</td>
</tr>
<tr>
<td>CISA 160</td>
<td>Project Management Techniques and Software (3)</td>
<td>3</td>
</tr>
</tbody>
</table>
CISA 320  Introduction to Database Management (1) 
and CISA 321  Intermediate Database Management (1) 
CISA 340  Presentation Graphics (2) 
CISC 306  Introduction to Web Page Creation (1) 
CISC 351  Introduction to Local Area Networks (1) 
CISN 190  Client Operating Systems (2) 
CISN 314  Fiber Optical Networking (3) 
CISN 374  Messaging Server Administration (3) 
CISS 300  Introduction to Information Systems Security (1) 
CISS 301  Ethical Hacking (2) 
CISS 350  Disaster Recovery (3) 
CIWW 310  Advanced Web Publishing (4) 

CISCO Concentration  44-46 Units
Core Requirements .......................................................... 25-26
CISC 324  Intermediate Linux Operating System .................. 1
CISN 110  Networking Technologies - Preparation for N+ .......  3 - 4 Certification (2)
and CISN 111  Intermediate Networking Technologies - Preparation for N+ Certification (2)
or CISN 119  TCP/IP Protocols (3)
CISN 140  CISCO Networking Academy (CCNA): Data Communication and Networking Fundamentals ......................... 3
CISN 141  CISCO Networking Academy (CCNA): Networking Theory and Routing Technologies .................................. 3
CISN 142  CISCO Networking Academy (CCNA): Advanced Routing and Switching ............................................... 3
CISN 143  CISCO Networking Academy (CCNA): Wide Area Network and Project-Based Learning .......................... 3
And a minimum of 3 units from the following: ....................... 3
CISA 405  Scripting for Applications (3)
CISN 325  Network Security and Firewalls (3)

LINUX Concentration  43-44 Units
Core Requirements .......................................................... 25-26
CISC 324  Intermediate Linux Operating System .................. 1
CISN 110  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)
CISP 453  Introduction to Systems Programming in UNIX (4)
CISN 342  Implementing Linux Operating System Security (3)

WINDOWS Concentration  44-45 Units
Core Requirements .......................................................... 25-26
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)
CISN 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

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.

Core Requirements for Certificate  8 Units
CISC 323  Linux Operating System .................................... 1
CISC 350  Introduction to Data Communications ................... 1
CISC 361  Microcomputer Support And Repair ..................... 3
CISN 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): Data Communication and Networking Fundamentals ......................... 3
CISN 141  CISCO Networking Academy (CCNA): Networking Theory and Routing Technologies .................................. 3
CISN 142  CISCO Networking Academy (CCNA): Advanced Routing and Switching ............................................... 3
CISN 143  CISCO Networking Academy (CCNA): Wide Area Network and Project-Based Learning .......................... 3

LINUX Concentration  23 Units
Core Requirements .......................................................... 8
CISC 324  Intermediate Linux Operating System .................. 1
CISN 110  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 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

WINDOWS Concentration  24 Units
Core Requirements .......................................................... 8
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)

CIS: Computer Programming Degree

The computer programming degree includes general topics in programming as well as focused topics related to one commonly used programming language. General topics include the use of an operating system and systems analysis. Programming language specific topics include syntax, program structuring, language constructs and proper programming methods.
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  10 Units
CISC 310  Introduction to Computer Information Science  ................. 3
CISP 300  Algorithm Design/Problem Solving ............................. 3
CISP 453  Introduction to Systems Programming in UNIX  .............. 4
or CISA 321  Intermediate Database Management (1) 3
and CISP 350  Database Programming (3)

C++ Concentration 22 Units
Core Requirements ................................................................. 10
CISP 360  Introduction to Structured Programming  .................... 4
CISP 401  Object Oriented Programming with C++ ..................... 4
CISP 457  Computer Systems Analysis and Design ...................... 3

Java Concentration 21 Units
Core Requirements ................................................................. 10
CISP 360  Introduction to Structured Programming  .................... 4
CISP 401  Object Oriented Programming with Java ..................... 4
CISP 457  Computer Systems Analysis and Design ...................... 3

Visual Basic Concentration 21 Units
Core Requirements ................................................................. 10
CISP 370  Beginning Visual Basic ........................................... 4
CISP 371  Intermediate Visual Basic ........................................ 4
CISP 457  Computer Systems Analysis and Design ...................... 3

Associate Degree Requirements: The CIS: Computer Programming 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 Degree

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, and electronic spreadsheets.

Requirements for Certificate  22 Units
CISA 315  Introduction to Database Management .......................... 2
CISA 320  Introduction to Database Management .......................... 1
CISA 321  Intermediate Database Management ............................ 1
CISC 320  Operating Systems .................................................. 1
CISP 350  Database Programming ............................................ 3
CISP 370  Intermediate Visual Basic ........................................ 4
CISW 300  Web Publishing ..................................................... 3
CISW 410  Middleware Web Scripting ....................................... 4

CIS: Microcomputer Applications Degree

This associate degree program 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, at least one programming language, and a variety of business courses.

Requirements for Degree  38 Units
BUS 310  Business Communications ........................................ 3
BUS 126  Outlook: Basics ..................................................... 1
BUS 127  Outlook: Tools ....................................................... 1
CISA 305  Beginning Word Processing ...................................... 2
CISA 306  Intermediate Word Processing ................................... 2
CISA 315  Introduction to Electronic Spreadsheets ...................... 2
CISA 316  Intermediate Electronic Spreadsheets ....................... 2
CISA 320  Introduction to Database Management ....................... 1
CISA 321  Intermediate Database Management ......................... 1
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 1 unit from the following: 1
BUSTEC 300  Beginning Keyboarding/Applications (1-3)
And a minimum of 5 units from the following: ........................................ 5
ACCT 341  Accounting on the Microcomputer (2)

BUSTEC 313  Presentations for the Business Professional (2)
CISA 141  Capturing and Publishing Digital Media (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)
CISW 301  Ethical Hacking (2)
CISW 300  Web Publishing (3)
CISW 307  Introduction to Web Development and Design (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)
CISP 350  Introduction to the Internet (1)
CISP 350  Database Programming (3)
CISP 360  Introduction to Structured Programming (4)
CISP 371  Intermediate Visual Basic (4)
CISP 457  Computer Systems Analysis and Design (3)
CISW  300  Introduction to Information Systems Security (1)
CISW  370  Designing Accessible Web Sites (1)

1Taken on the Windows operating system.

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
This certificate involves the use of the microcomputer and cur-
cent, commonly used software applications to solve problems in
a business environment. Course work includes microcomputer ap-
clications in database management, desktop publishing, electronic
spreadsheets, presentation graphics, operating systems, and word
processing.

Requirements for Certificate  ........................... 24 Units
BUS 310  Business Communications ................................. 3
CISA 305  Beginning Word Processing .......................... 2
CISA 306  Intermediate Word Processing ........................ 2
CISA 315  Introduction to Electronic Spreadsheets ............ 2
CISA 316  Intermediate Electronic Spreadsheets ............... 2
CISA 320  Introduction to Database Management .............. 1
CISA 321  Intermediate Database Management ................ 1
CISA 330  Desktop Publishing .................................. 2
CISA 340  Presentation Graphics .................................... 2
CISP 305  Introduction to the Internet ......................... 1
CISC 306  Introduction to Web Page Creation ................. 1
CISC 310  Introduction to Computer Information Science .... 3
CISC 320  Operating Systems .................................. 1
CISC 350  Introduction to Data Communications ............. 1

1Taken on the Windows operating system.

CIS: PC Support Management Degree
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 appli-
cations in a standalone and network environment. Additionally, the de-
gree introduces basic business and project manage-
ment skills. This program covers all the objectives of the Computing
Technology Industry Association (CompTIA) A+ certification exam.

Requirements for Degree  ............................. 31 Units
BUS 300  Introduction to Business ............................... 3
BUS 310  Business Communications ......................... 3
CISA 160  Project Management Techniques and Software ... 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
CISW 301  Ethical Hacking .................................. 2

And a minimum of 6 units from the following: ......................... 6
CISA 126  Outlook: Basics (1)
or BUSTEC 126 Outlook: Basics (1)
and CISA 127  Outlook: Tools (1)
or BUSTEC 127 Outlook: Tools (1)
CISA 305  Beginning Word Processing (2)
CISA 315  Introduction to Electronic Spreadsheets (2)
CISA 320  Introduction to Database Management (1)
CISA 340  Presentation Graphics (2)
CISC 306  Introduction to Web Page Creation (1)
CISC 323  Linux Operating System (1)

1Taken 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 Certificate
The CIS: PC Support certificate involves learning the use of a
microcomputer’s hardware, software and networking used in today’s business environment. Course work includes basic computer skills in configuration, use, and troubleshooting major hardware compo-
nents, different operating systems, and applications in a standalone
and network environment. This program covers all the objectives of the Computing Technology Industry Associates (CompTIA) A+ certification exam.

Requirements for Certificate  ............................. 25 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
CISW 301  Ethical Hacking .................................. 2

And a minimum of 6 units from the following: ......................... 6
CISA 126  Outlook: Basics (1)
or BUSTEC 126 Outlook: Basics (1)
and CISA 127  Outlook: Tools (1)
or BUSTEC 127 Outlook: Tools (1)
CISA 305  Beginning Word Processing (2)
CISA 315  Introduction to Electronic Spreadsheets (2)
CISA 320  Introduction to Database Management (1)
CISA 340  Presentation Graphics (2)
CISC 306  Introduction to Web Page Creation (1)
CISC 323  Linux Operating System (1)

1Taken on the Windows operating system.
Information Systems Security Degree

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 some of the Certified Information Systems Security Professional (CISSP) certification exams.

Requirements for Degree 33 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>CISC 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 324</td>
<td>Intermediate Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CSIN 110</td>
<td>Networking Technologies - Preparation for N+ Certification</td>
<td>2</td>
</tr>
<tr>
<td>CSIN 111</td>
<td>Intermediate Networking Technologies - Preparation for N+ Certification</td>
<td>2</td>
</tr>
<tr>
<td>CSIN 300</td>
<td>Network Systems Administration</td>
<td>3</td>
</tr>
<tr>
<td>CSIN 302</td>
<td>Intermediate Network Systems Administration</td>
<td>3</td>
</tr>
<tr>
<td>CSIN 307</td>
<td>Windows Active Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 325</td>
<td>Network Security and Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CSIS 342</td>
<td>Implementing Linux Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 350</td>
<td>Disaster Recovery</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 360</td>
<td>Computer Forensics and Investigation</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

Information Systems Security Certificate

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.

Requirements for Certificate 23 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 324</td>
<td>Intermediate Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 300</td>
<td>Network Systems Administration</td>
<td>3</td>
</tr>
<tr>
<td>CISC 302</td>
<td>Intermediate Network Systems Administration</td>
<td>3</td>
</tr>
<tr>
<td>CISC 307</td>
<td>Windows Active Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 325</td>
<td>Network Security and Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CSIS 342</td>
<td>Implementing Linux Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 350</td>
<td>Disaster Recovery</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 360</td>
<td>Computer Forensics and Investigation</td>
<td>3</td>
</tr>
</tbody>
</table>

CIS: Computer Programming Certificate

This certificate provides up-to-date and general knowledge in the field of computer programming, such as syntax, programming methodologies, and structured programming. It also includes topics relating to the work environment of a programmer. Such topics include operating systems and systems analysis.

Career Opportunities

The programming certificate enables people who are already in information technology and computer fields to develop programs.

Core Requirements for Certificate 10 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science</td>
<td>3</td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>CISP 457</td>
<td>Computer Systems Analysis and Design</td>
<td>3</td>
</tr>
</tbody>
</table>

C++ Concentration Requirements 22 Units

Core Requirements........................................................................ 10

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 600</td>
<td>Introduction to Structured Programming</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>
</tbody>
</table>

Java Concentration Requirements 22 Units

Core Requirements........................................................................ 10

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISA 321</td>
<td>Intermediate Database Management</td>
<td>1</td>
</tr>
<tr>
<td>CISP 350</td>
<td>Database Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISP 360</td>
<td>Introduction to Structured Programming</td>
<td>4</td>
</tr>
<tr>
<td>CISP 401</td>
<td>Object Oriented Programming with Java</td>
<td>4</td>
</tr>
</tbody>
</table>

Visual Basic Concentration Requirements 22 Units

Core Requirements........................................................................ 10

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISA 321</td>
<td>Intermediate Database Management</td>
<td>1</td>
</tr>
<tr>
<td>CISP 350</td>
<td>Database Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISP 370</td>
<td>Beginning Visual Basic</td>
<td>4</td>
</tr>
<tr>
<td>CISP 371</td>
<td>Intermediate Visual Basic</td>
<td>4</td>
</tr>
</tbody>
</table>

Computer Information Security Essentials Certificate

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.

Requirements for Certificate 12 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CISC 325</td>
<td>Network Security and Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CISC 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CISC 342</td>
<td>Implementing Linux Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 360</td>
<td>Computer Forensics and Investigation</td>
<td>3</td>
</tr>
</tbody>
</table>

Network Administration Essentials - Windows Certificate

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.

Requirements for Certificate 12 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CISC 325</td>
<td>Network Security and Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CISC 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CISC 342</td>
<td>Implementing Linux Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>CSIS 360</td>
<td>Computer Forensics and Investigation</td>
<td>3</td>
</tr>
</tbody>
</table>
Web Developer Certificate

The web developer certificate offers a program of study for students seeking jobs in the fields of web based programming and web application development. The program provides students with the necessary skills and aptitudes for creating and maintaining interactive, database-driven, web applications.

Requirements for Certificate 12 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISW 310</td>
<td>Advanced Web Publishing</td>
<td>3</td>
</tr>
<tr>
<td>CISW 370</td>
<td>Intermediate Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISW 411</td>
<td>Middleware Scripting Database Web Applications</td>
<td>4</td>
</tr>
<tr>
<td>CISW 471</td>
<td>Interactive Multimedia Projects</td>
<td>4</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISW 370</td>
<td>Designing Accessible Web Sites</td>
<td>1</td>
</tr>
<tr>
<td>CISW 411</td>
<td>Middleware Scripting Database Web Applications</td>
<td>2</td>
</tr>
<tr>
<td>ARTNM 410</td>
<td>Interactive Multimedia Projects</td>
<td>3</td>
</tr>
</tbody>
</table>

Web Publishing Certificate

The web publishing certificate offers a program of study for students seeking jobs in the fields of web publishing, design, and development. The program provides the necessary skills and knowledge 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.

Requirements for Certificate 35-36 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>CISC 310</td>
<td>Introduction to Computer Information Science</td>
<td>3</td>
</tr>
<tr>
<td>CISC 329</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 370</td>
<td>Designing Accessible Web Sites</td>
<td>1</td>
</tr>
<tr>
<td>CSP 350</td>
<td>Database Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSP 370</td>
<td>Beginning Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>CSP 401</td>
<td>Object Oriented Programming with Java</td>
<td>4</td>
</tr>
<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
<td>3</td>
</tr>
<tr>
<td>CISW 310</td>
<td>Advanced Web Publishing</td>
<td>3</td>
</tr>
<tr>
<td>or CISW 400</td>
<td>Client-side Web Scripting</td>
<td>4</td>
</tr>
<tr>
<td>or CISW 365</td>
<td>Interactive Multimedia Basics</td>
<td>3</td>
</tr>
<tr>
<td>or ARTNM 404</td>
<td>Interactive Multimedia Basics</td>
<td>3</td>
</tr>
<tr>
<td>CISW 471</td>
<td>Interactive Multimedia Projects</td>
<td>4</td>
</tr>
<tr>
<td>or ARTNM 410</td>
<td>Interactive Multimedia Projects</td>
<td>4</td>
</tr>
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</table>

And a minimum of 4 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CISW 405</td>
<td>ActionScript for Flash</td>
<td>3</td>
</tr>
<tr>
<td>CISW 410</td>
<td>Middleware Scripting</td>
<td>4</td>
</tr>
<tr>
<td>CISW 411</td>
<td>Middleware Scripting Database Web Applications</td>
<td>2</td>
</tr>
<tr>
<td>CISW 420</td>
<td>Server-side Web Scripting</td>
<td>4</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.

Technical Communication Degree

Requirements for Degree 42.5 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>or ARTNM 310</td>
<td>Design: Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ART 323</td>
<td>Design: Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 303</td>
<td>Graphic Design: Typography</td>
<td>3</td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 306</td>
<td>Intermediate Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 342</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 344</td>
<td>Technical/Professional Communication: Writing Reports</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGR 348</td>
<td>Technical/Professional Communication: Plain English</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 350</td>
<td>Technical/Professional Communication: Proposal Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
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</tbody>
</table>

And a minimum of 6 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGCW 450</td>
<td>College Literary Magazine</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 330</td>
<td>Writing for Publication</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 331</td>
<td>Writing for Publication</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 334</td>
<td>Introduction to Careers in Technical Communication</td>
<td>1</td>
</tr>
<tr>
<td>ENGR 335</td>
<td>Writing Formal Reports</td>
<td>1</td>
</tr>
<tr>
<td>ENGR 338</td>
<td>Writing Training Materials</td>
<td>1</td>
</tr>
<tr>
<td>JOUR 300</td>
<td>Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 401</td>
<td>College Newspaper Production</td>
<td>2</td>
</tr>
<tr>
<td>SPEECH 321</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>or SPEECH 331</td>
<td>Group Discussion</td>
<td>3</td>
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</table>

And a minimum of 12 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTNM 334</td>
<td>Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 338</td>
<td>Digital Photo Imagery - Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 330</td>
<td>Intermediate Digital Photo Imagery</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 352</td>
<td>Design for Publication</td>
<td>3</td>
</tr>
<tr>
<td>or CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>and CISA 331</td>
<td>Intermediate Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>ARTNM 354</td>
<td>Digital Prepress</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 402</td>
<td>Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 404</td>
<td>Interactive Multimedia Basics</td>
<td>3</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
<td>2</td>
</tr>
<tr>
<td>CISW 310</td>
<td>Advanced Web Publishing</td>
<td>4</td>
</tr>
</tbody>
</table>

Technical Communication Certificate

Requirements for Certificate 20.5-21.5 Units

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTNM 352</td>
<td>Design for Publication</td>
<td>3</td>
</tr>
<tr>
<td>or CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>and CISA 331</td>
<td>Intermediate Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 306</td>
<td>Intermediate Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>ENGR 342</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 344</td>
<td>Technical/Professional Communication: Writing Reports</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGR 348</td>
<td>Technical/Professional Communication: Plain English</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 350</td>
<td>Technical/Professional Communication: Proposal Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
</tr>
</tbody>
</table>
CISA 126  Outlook: Basics  1 Unit
Same As: BUSTEC 126
Advisory: BUSTEC 300
Hours: 18 hours LEC
This course introduces desktop communication management for users of Microsoft Outlook. Topics include e-mail, creating and managing contacts in the address book, and accessing files and folders. The skills and topics needed to pass the International Computer Driver's License (ICDL) Module 7: Information and Communication communications portion of the ICDL exam are covered. Additionally, CISA 126/BUSTEC 126 and CISA 127/BUSTEC 127 taken together are considered sufficient preparation to pass the Microsoft Office Specialist certification objectives for the Microsoft Outlook application. This course is not open to students who have taken BUSTEC 126.

CISA 127  Outlook: Tools  1 Unit
Same As: BUSTEC 127
Advisory: BUSTEC 300
Hours: 18 hours LEC
This Outlook course presents the communication tools beyond basic email. Topics include calendar and scheduling, tasks and notes, shared folders, and customizing Outlook. In addition, the course covers the integration of Outlook with other applications within the Microsoft Office suite. CISA 126/BUSTEC 126 and CISA 127/BUSTEC 127 taken together are considered sufficient preparation to pass the Microsoft Office Specialist certification objectives for the Microsoft Outlook application. This course is not open to students who have taken BUSTEC 127.

CISA 141  Capturing and Publishing Digital Media  2 Units
Hours: 27 hours LEC; 27 hours LAB
This course is an overview of multimedia publishing software and peripherals used to produce digital media. Topics include the function and features of technology devices such as video camcorders, digital cameras, digital music devices, graphic pads and pens, DVD/CD burners, USB drives, and photo/CD/DVD printers. Multimedia publishing software and devices are examined and discussed for advantages and disadvantages. File and equipment management techniques are presented.

CISA 160  Project Management Techniques and Software  3 Units
Same As: MGMT 142
Advisory: ENGRD 116; or ESLR 320 and ESLW 320; CISC 300
Hours: 54 hours LEC
This is an introductory course covering the responsibilities of a project manager. It includes the knowledge needed to manage a project, control costs and schedule resources. It will also introduce the use of project management software to track project resources, tasks and milestones. 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, manipulating graphics, and managing eBooks.

CISA 294  Topics in Computer Information Science - Applications  .5-5 Units
Prerequisite: To be determined with each topic.
Hours: 72 hours LEC, 54 hours LAB
This is an individualized course developed in cooperation with industry and/or government to meet specialized training needs. The course may be taken twice for credit.

CISA 305  Beginning Word Processing  2 Units
Advisory: CISC 300
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This is an introductory course in word processing. The 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. This course may be taken four times on a different software package or version.

CISA 306  Intermediate Word Processing  2 Units
Prerequisite: CISA 305 with grade of “C” or better.
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course is a continuation of word processing with 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. This course may be taken four times on a different software packaging or version.

CISA 308  Exploring Word Processing and Presentation Software  1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
The 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 documents are covered. PowerPoint presentations are included.

CISA 315  Introduction to Electronic Spreadsheets  2 Units
Advisory: CISC 100 and the ability to touch type.
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course introduces the use of electronic spreadsheet programs. The course includes designing spreadsheets, developing formulas for automatic calculations, developing “what if” models, and producing printed reports. In addition, the course will introduce 3-D cell referencing, accessing real-time spreadsheet data from the Internet, and data filtering techniques. The course may be taken four times for credit on a different software package or version.
### 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 and logical functions. The course also includes look-up tables, the use of worksheet analysis tools, macros, and data integration. The course may be taken four times for credit on a different software package or version.

### CISA 318 Exploring Spreadsheet Software 1 Unit

**Course Transferable to CSU**
**Hours:** 18 hours LEC

The course introduces widely used spreadsheet software. The basic features and skills of editing and formatting a spreadsheet, using basic formulas and functions, inserting and formatting charts and graphics in a spreadsheet workbook and analyzing and presenting that workbooks are covered.

### CISA 320 Introduction to Database Management 1 Unit

**Advisory:** BUSTEC 300 and CISC 300
**General Education:** AA/AS Area II(b)
**Course Transferable to CSU**
**Hours:** 18 hours LEC, 18 hours LAB

This course introduces the student, through hands-on operation, to the use of database management programs on the microcomputer. It includes designing a database; assessing, searching, and updating files, and designing and producing printed reports. This course may be taken four times for credit on a different software package or version.

### CISA 321 Intermediate Database Management 1 Unit

**Prerequisite:** CISA 320 with grade of “C” or better.
**Course Transferable to CSU**
**Hours:** 18 hours LEC, 18 hours LAB

This course continues the study of microcomputer database with emphasis on database design, reporting, application building, and utilization of files created using other software. This course may be taken four times on a different software package or version.

### CISA 322 Advanced Database Management 1 Unit

**Prerequisite:** CISA 321 with a grade of “C” or better in the corresponding software application CISA 322 package.
**Course Transferable to CSU**
**Hours:** 18 hours LEC, 18 hours LAB

This course continues the study of microcomputer database with emphasis on database design, reporting, application building, and utilization of files created using other software. The course may be taken four times for credit on a different software package or version.

### CISA 330 Desktop Publishing 2 Units

**Advisory:** CISC 300, CISA 300 and ability to touch type.
**Course Transferable to CSU**
**Hours:** 27 hours LEC, 27 hours LAB

The course is designed to present an overview of desktop publishing and a major desktop publishing program. Material presented will include page layout skills needed to produce newsletters, brochures, flyers, reports, and directories on the computer. File and equipment management techniques will be presented. This course may be taken four times on a different software package or version.

### CISA 331 Intermediate Desktop Publishing 2 Units

**Prerequisite:** CISA 330 with a grade of “C” or better.
**Course Transferable to CSU**
**Hours:** 27 hours LEC, 27 hours LAB

This course is designed to present an overview of advanced desktop publishing (DTP) skills. Advanced techniques in page layout and design, select and use software programs which interface with DTP, use advanced typographic features, create and integrate image/graphic designs, handle files and directories, and analyze DTP needs and equipment integration will be presented. This course may be taken four times on a different software package or version.

### CISA 340 Presentation Graphics 2 Units

**Advisory:** CISC 300.
**Course Transferable to CSU**
**Hours:** 27 hours LEC; 27 hours LAB

This course presents 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 hardware. This course may be taken four times on a different software package or version.

### CISC 100 Computer Fundamentals with Hands-on Lab 2 Units

**Hours:** 27 hours LEC; 27 hours LAB

This introductory course provides general non-technical knowledge combined with a hands-on lab on how computers work including basic computer terminology and concepts. The focus is slower paced instruction with extensive hands-on reinforcement of instructional concepts. Course topics include an introduction to the operating system software and application software focusing on word processing, spreadsheets, the Internet and email.

### CISC 294 Topics in Computer Information Science - Core .5-5 Units

**Prerequisite:** To be determined with each topic.
**Hours:** 72 hours LEC; 54 hours LAB

This is an individualized course developed in cooperation with industry and/or government to meet specialized training needs. The course may be taken twice for credit.

### 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 course provides a general non-technical introduction to how computers work in addition to basic computer terminology and concepts. The focus is hands-on instruction using an operating system, word processing, spreadsheet, and Internet software. The course may be taken twice for credit.

### 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 is an introduction to how the Internet works and how to effectively use basic Internet services. Topics include E-mail, E-mail lists, the World Wide Web, search engines, newsgroups, Telnet, File Transfer Protocol (FTP), various forms of asynchronous communications such as Really Simple Syndication (RSS), and Internet security considerations.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CISC 306</td>
<td>Introduction to Web Page Creation</td>
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<td>Advisory: CISC 305. Course Transferable to CSU</td>
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<td></td>
<td>Hours: 18 hours LEC; 18 hours LAB</td>
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<td></td>
<td>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. This course may be taken four times for credit on a different software package or version.</td>
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<tr>
<td>CISC 308</td>
<td>Exploring Computer Environments and the Internet</td>
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<td>Advisory: CISC Transferable to CSU</td>
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<td>Hours: 18 hours LEC</td>
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<td>The course introduces the fundamentals of microcomputer hardware, software and computer networking, focusing on operating systems. The fundamentals of the Internet and Internet tools are introduced.</td>
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<tr>
<td>CISC 309</td>
<td>Applied Applications Lab</td>
<td>.5</td>
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<td>Corequisite: CISC 300, CISA 305, CISA 306, CISA 315, CISA 316, or CISA 320. Advisory: ENGRD 116 or ESLR 320 and ability to keyboard 20 WAM. Course Transferable to CSU</td>
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<td>Hours: 27 hours LAB</td>
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<td>This course complements CISC 300, CISA 305, CISA 306, CISA 315, CISA 316, and CISA 320 by providing supplemental lab instruction. The material reinforces the concepts and techniques presented in these courses. This course may be taken four times. Credit/no credit only.</td>
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<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science</td>
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<td>Course Transferable to UC/CSU</td>
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<td></td>
<td>Hours: 54 hours LEC</td>
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<td></td>
<td>This course is a survey of the computer field covering the function and purpose of computer hardware and software, computer programming concepts, productivity software, employment opportunities, and the social impact of the computer.</td>
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<tr>
<td>CISC 320</td>
<td>Operating Systems</td>
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<td>Advisory: CISC 300 and ability to touch type. Course Transferable to CSU</td>
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<td>Hours: 18 hours LEC; 18 hours LAB</td>
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<td>This course introduces operating systems for the PC. Topics include file systems, operating system services, program management, file and directory organization, and hard drive maintenance. It also includes information on protecting your PC from viruses, Trojans, worms, adware, spyware, and other malicious network exploits. Additional topics are DOS commands and batch files. The course may be taken four times on a different Windows operating system version.</td>
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<tr>
<td>CISC 322</td>
<td>Linux Operating System</td>
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<td>Advisory: CISC 300 and ability to touch type. Course Transferable to CSU</td>
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<td>Hours: 18 hours LEC; 18 hours LAB</td>
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<td></td>
<td>This course introduces the Linux operating system for microcomputers. Concepts include kernels, file structures, daemons, shells, GUIs, procedures for installing software, creation of user accounts, shell commands, scripts, and file security.</td>
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<tr>
<td>CISC 324</td>
<td>Intermediate Linux Operating System</td>
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<td>Prerequisite: CISC 323 with a grade of &quot;C&quot; or better. Course Transferable to CSU</td>
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<td>Hours: 18 hours LEC; 18 hours LAB</td>
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<td>This course is a continuation of CISC 323. It covers advanced shell scripting, C Shell, K Shell, BASH and other varieties will be compared. It also includes decision-making logic, looping, nesting, and other scripting tools will be used.</td>
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<tr>
<td>CISC 350</td>
<td>Introduction to Data Communications</td>
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<td>Advisory: CISC 300 and ability to touch type. Course Transferable to CSU</td>
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<td>Hours: 18 hours LEC</td>
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<td>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.</td>
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<tr>
<td>CISC 351</td>
<td>Introduction to Local Area Networks</td>
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<td>Advisory: CISC 320 and 350. Course Transferable to CSU</td>
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<td></td>
<td>Hours: 18 hours LEC; 18 hours LAB</td>
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<td>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. The course may be taken for credit four times on a different Windows operating system.</td>
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<tr>
<td>CISC 356</td>
<td>Microcomputer Support Essentials - Preparation for A+ Certification</td>
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<td>Advisory: CISC 310, 320, and 350. Course Transferable to CSU</td>
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<td>Hours: 42 hours LEC; 36 hours LAB</td>
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<td>This course is the first of two courses covering support and repair for standalone 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.</td>
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<td>CISC 361</td>
<td>Microcomputer and Applications Support</td>
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<td>Prerequisite: CISC 300, CISA 315, and CISA 320 with grades of &quot;C&quot; or better. Corequisite: CISC 361. Course Transferable to CSU</td>
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<td>Hours: 18 hours LEC; 54 hours LAB</td>
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<td>The course is an in-depth investigation of the technical skills, business skills, soft skills, 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. Work experience serving as a student intern in computer support is required through an internship in one of the American River College (ARC) computer classrooms/labs.</td>
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<td>CISC 362</td>
<td>Microcomputer Support Technical - Preparation for A+ Certification</td>
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<td>Prerequisite: CISC 361 with a grade of &quot;C&quot; or better. Course Transferable to CSU</td>
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<td>Hours: 42 hours LEC; 36 hours LAB</td>
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<td>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.</td>
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<td>Course Code</td>
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<td>CISC 498</td>
<td>Work Experience in Computer Information Science</td>
<td>1-4</td>
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<td>CISN 110</td>
<td>Networking Technologies - Preparation for N+ Certification</td>
<td>2</td>
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<tr>
<td>CISN 111</td>
<td>Intermediate Networking Technologies - Preparation for N+ Certification</td>
<td>2</td>
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<tr>
<td>CISN 118</td>
<td>Internet Protocol Subnetting</td>
<td>1</td>
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<td>CISN 119</td>
<td>TCP/IP Protocols</td>
<td>3</td>
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<tr>
<td>CISN 120</td>
<td>Beginning Network Administration with Linux</td>
<td>3</td>
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<tr>
<td>CISN 121</td>
<td>Network Administration with Linux: LAN Services</td>
<td>2</td>
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<tr>
<td>CISN 122</td>
<td>Network Administration with Linux: Internet Services</td>
<td>2</td>
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<tr>
<td>CISN 140</td>
<td>Cisco Networking Academy (CCNA)tm: Data Communication and Networking Fundamentals</td>
<td>3</td>
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<tr>
<td>CISN 141</td>
<td>Cisco Networking Academy (CCNA)tm: Networking Theory and Routing Technologies</td>
<td>3</td>
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<tr>
<td>CISN 142</td>
<td>Cisco Networking Academy (CCNA)tm: Advanced Routing and Switching</td>
<td>3</td>
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</tbody>
</table>
CISN 143  CISCO Networking Academy (CCNA)™: Wide-Area Network and Project-Based Learning 3 Units
Prerequisite: CISN 142 with a grade of “C” or better.
Hours: 54 hours LEC; 18 hours LAB
This course provides the skills to design and configure advanced wide area network (WAN) projects using Cisco IOS command set. 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 190  Client Operating Systems 2 Units
Prerequisite: CISN 102.
Hours: 27 hours LEC; 27 hours LAB
This course covers the planning, installation, configuration and administration of Client Operating Systems. Client Operating Systems are an essential component for both the client/server and peer-to-peer network models. Topics covered include planning the Client Operating System implementation; installation and configuration; managing user resources; connectivity of clients in heterogeneous networking environments; monitoring and optimization of the network; and common troubleshooting techniques.

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. This course may be taken four times on a different Windows version.

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. This course may be taken four times on a different Windows software version.

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 installing, configuring, and administering 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) is covered, as well as publishing, replication and the backup of the directory services database. This course may be taken up to four times on different Windows operating system versions.

CISP 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 installing, configuring, managing, and supporting 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 Name 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). This course may be taken four times on different Windows operating system versions.

CISP 314  Fiber Optic Networking 3 Units
Advisory: CISC 350.
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces basic fiber optical technologies including splices, connectors, optical sources, detectors, optical amplifiers, splitters and modulators. Optical switching technology and fiber based standards and protocols are covered along with services such as voice, data and video. Industry procedures and practices are examined.

CISP 314  Fiber Optic Networking 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 the installation and administration of messaging servers. Topics include the installation, configuration, management and tuning of mail and messaging services on both servers and clients; mail access protocols; security issues; backup and restore of the messaging database; and Internet connectivity. This course may be taken four times for credit on different software versions.

CISP 300  Algorithm Design/Problem Solving 3 Units
Advisory: CISC 310.
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the Computer Science major to methods for solving typical computer problems through algorithm design. Topics covered include assessing and analyzing computer problems in a top-down, divide-and-conquer approach that leads to a programming solution. It also includes programming plans and detailed design documents from which source code versions of programs will be created.

CISP 310  Assembly Language Programming for Microcomputers 4 Units
Prerequisite: CISP 360 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an introduction to the architecture of microcomputers that use the Intel microprocessor. Topics include machine and assembly language, keyboard and screen manipulation, binary and binary coded decimal (BCD) arithmetic, American Standard Code for Information Interchange (ASCII) and binary conversion, table processing, macros, and subroutines. Machine language programs are traced as an aid to debugging.
CISP 315  Introduction to Computer Architecture and Design  4 Units
Prerequisite: CISP 310 with a grade of “C” or better
General Education: AA/AS Area II(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an introduction to the fundamental theories of, and their applications in, digital computer design. Topics include machine code decoding, memory bus cycles, memory, arithmetic and logic unit, registers, latches, Boolean algebra, logic gates, state machines, binary representation, pipelining and Boolean equation optimization. Synthesis of the design of a computer in a hardware description language (HDL) is stressed. All topics are related to programming and overall computer system operations.

CISP 320  COBOL Programming  4 Units
Prerequisite: CISP 300, 340, 365, or 370 with a grade of “C” or better
Advisory: CISP 317
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This is a course in Programming using the language of COBOL to analyze and solve problems found in business and government. The programs use sequential disk files for input. Both printed reports and disk files are demonstrated output options. Updating of sequential files involves the use of multiple files as input and output. Current methods of problem solving include programming structure, top-down design, and modular programming techniques. Topics covered include report formatting, control breaks, and single and double arrays.

CISP 321  Advanced COBOL Programming  4 Units
Prerequisite: CISP 320 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers advanced COBOL concepts and programming techniques. The topics include sequential file processing, data editing, indexed sequential file processing, disk sorts, job control language, debugging techniques, table searching, segmentation, and subroutines. Emphasis is on structured design and structured programming utilizing top-down and modular techniques.

CISP 350  Database Programming  3 Units
Advisory: CISA 320 and CISC 310
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 56 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, 320, 340, or 370 with a grade of “C” or better
General Education: AA/AS 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, interactive and file input/output, standard libraries, arrays, pointers, methods (functions), classes and objects.

CISP 370  Beginning Visual Basic  4 Units
Advisory: CISC 310 and CISP 300.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This is an introductory programming course employing the language of Visual BASIC. Concepts and problems relate to a graphic user interface operating system (such as Windows) and object oriented programming. Terms, rules, and program components used in desktop customization will be explored. Applications include control menu boxes, menu bars, and scroll bar development. This course may be taken four times on a different software version. (CAN CSCI 6)

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 is the second course in Visual Basic programming. The course examines data and its relationship to the functions that operate on data. Topics include forms, components, properties, classes, objects, static and dynamic relationships, databases, data sets, queries, hierarchies, inheritance, coding, dialog boxes, associations, testing, and debugging. This course may be taken four times with a different version of Visual Basic.

CISP 372  Beginning Visual Basic for Applications Programming  1 Unit
Course Transferable to CSU
Hours: 15 hours LEC; 9 hours LAB
This course introduces Visual Basic for Applications (VBA) programming for the purposes of application automation and customization. It includes basic programming concepts such as variables, control structures and subroutines. The use of elementary user interface controls are also included in this course.

CISP 400  Object Oriented Programming with C++  4 Units
Prerequisite: CISP 360 with a grade of “C” or better
Advisory: CISP 323
General Education: AA/AS 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 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.

CISP 401  Object Oriented Programming with Java  4 Units
Prerequisite: CISP 360 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an introduction to object oriented programming using the Java programming language. Topics include: objects, inheritance, polymorphism, interfaces, abstract classes, inner classes, error handling, graphical user interfaces, applets, threads, files, databases, and packages.
CISP 430  Data Structures  4 Units
Prerequisite: CISP 360 with a grade of "C" or better.
Advisory: CISP 400.
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. Specifications, 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. (CAN CSCI 24)

CISP 440  Discrete Structures for Computer Science  3 Units
Prerequisite: MATH 370 with a grade of "C" or better
Corequisite: CISP 430
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 the essential discrete structures used in Computer Science, with emphasis on their applications. Topics covered include elementary formal logic and set theory, elementary combinatorics, recursive programming and algorithm analysis, finite state machines and formal languages, digital logic and switching, combinatorial circuits, and computer arithmetic.

CISP 453  Introduction to Systems Programming in UNIX  4 Units
Prerequisite: CISP 310, 360, and 430 with grades of "C" or better.
Advisory: CISC 323.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers the features of the C language commonly used in systems programming, and the application of those features to systems programming in a Linux/UNIX environment. Topics include C preprocessor macros, input/output, bit-manipulation facilities; timesharing system concepts; shell script programming; make files and source code control; basic system calls including fork and exec; pointers and dynamic memory allocation; libraries; and relocation and linking concepts including assembler handling of symbol tables.

CISP 457  Computer Systems Analysis and Design  3 Units
Prerequisite: CISP 300 or 370 with a grade of "C" or better.
Advisory: CISA 305 and 340.
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the methods used to analyze, design, and implement a computer system that meets client business needs. The methodology emphasizes the skills needed by a system analyst throughout the steps of a system development life cycle. These steps include system feasibility, analysis, design, implementation, documentation, and evaluation.

CISS 300  Introduction to Information Systems Security  1 Unit
Advisory: CISC 320, 350, or 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 301  Ethical Hacking  2 Units
Advisory: CISC 320, 323, 350 or 351.
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course introduces basic security concepts, principles and “best practices” and explores ways in which security for a stand-alone PC and a network-connected PC can be compromised. It provides ways in which the security of a PC can be checked and evaluated. Principles of ethical hacking are discussed. Internal and external security threats are discussed, including viruses, worms, trojans, scripts and other malicious e-mail content. Network vulnerabilities, common exploits and basic countermeasures are discussed.

CISS 310  Network Security Fundamentals  3 Units
Advisory: CISN 119, 140, and 302.
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course provides the information and skills required to analyze security risks from potential network intrusions to organizations' network information systems. Topics cover the required content of the Computing Technology Industry Association (CompTIA) Security+ certification exam.

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 such as Microsoft ISA Server, 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.

CISS 341  Implementing Windows Operating System Security  3 Units
Advisory: CISC 320, CIS 350, 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 most 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. This course may be taken 4 times for credit on different versions of the Windows operating system.
CISW 300  Web Publishing  3 Units
Advisory: CISW 300 and CISW 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 Languages (HTML), organizing a series of pages into a web site, and uploading web pages to a server. The course makes extensive use of the computer tools necessary to insert HTML tags, create images, and view web documents. It also prepares apprentice web designers and publishers to identify the information dissemination needs of a client, design an appropriate web solution, and implement it.

CISW 307  Introduction to Web Development and Design  3 Units
Same As: ARTNM 401
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the strategies for the development and design of web sites. Using an industry standard web authoring tool, the course integrates both artistic and technical concepts. Topics include assembling, designing and publishing web pages using strategies, principles and processes universally practiced by the professionals in this field. This course, in combination with ARTNM 401, may be taken four times for credit on a different software package or version.

CISW 301  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 305  Web Imaging Projects  2 Units
Prerequisite: CISW 305 or ARTNM 402 or ARTNM 400 with a grade of “C” or better.
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course is a continuation of CISW 350. Projects and simulations developing graphics for the web are created for the purpose of marketing and advertising on the Web. The steps, procedures, and common problems encountered when producing quality graphics for professional Web sites are discussed and practiced. Real and simulated projects will include the following: compressing and uploading times, cropping and resizing, digital camera imaging, retouching and fixing photographs, photographic special effects and filters, rasterizing text, implementing backgrounds, buttons, themes, image maps, slicing, and simple animations.

CISW 355  Imaging for the Web  1 Unit
Prerequisite: CISW 305 or ARTNM 402 or ARTNM 400 with a grade of “C” or better.
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
This course takes an in-depth look at designing graphics for the Web. Industry standard graphic software is used to create original graphics as well as to manipulate found imagery. Topics include developing graphic elements for a Web site using a visual theme, creating buttons and intuitive navigational elements, making background textures and images, understanding Web file formats, scanning, presenting to a client, and simple animation. May be taken twice for credit on a different platform or graphics software package. Not open to students who have completed ARTNM 400.

CISW 350  Imaging for the Web  1 Unit
Prerequisite: CISW 305 or ARTNM 402 or ARTNM 400 with a grade of “C” or better.
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
This course is an introduction to publishing on the World Wide Web. Topics include creating web pages with the Hyper Text Markup Languages (HTML), organizing a series of pages into a web site, and uploading web pages to a server. The course makes extensive use of the computer tools necessary to insert HTML tags, create images, and view web documents. It also prepares apprentice web designers and publishers to identify the information dissemination needs of a client, design an appropriate web solution, and implement it.

CISW 360  Computer Forensics and Investigation  3 Units
Advisory: CISS 324, CISS 310, and CISS 350
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course introduces the methods used to conduct a computer forensics investigation. Topics include an overview of computer forensics as a profession, the computer investigation process, operating systems’ boot processes and disk structures, data acquisition and analysis, ethics, and a review of standard computer forensic tools. The course topics map to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification.

CISW 365  Interactive Multimedia Basics  3 Units
Same As: ARTNM 400
Advisory: ARTNM 324, ARTNM 402, CISW 300, or CISW 310
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course demonstrates how to create simple vector-based graphics, animation, buttons, movies and raster files in a web environment. Topics include drawing tools, time-line effects, sound and video integration and basic interactivity. CISW 365 and/or ARTNM 404 may be taken a total of 4 times on different platforms or software versions.

CISW 370  Designing Accessible Web Sites  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 web sites for people with disabilities. Current legal requirements for accessible web sites, especially the Americans with Disabilities Act (ADA), are emphasized.
CISW 385  E-Commerce  3 Units
Prerequisite: CISC 305 or CISW 300 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC
This course provides both the beginner and the professional with a
working knowledge of e-commerce. It emphasizes the theory and
practice of marketing in an electronic environment. The personal-
ization and interactivity of commercial web sites as a tool to build
strong customer relationships are stressed.

CISW 400  Client-side Web Scripting  4 Units
Prerequisite: CISW 300 with a grade of “C” or better
Advisory: CISP 300 and CISW 310
Course Transferable to CSU
Hours: 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. Topics
include the Document Object Model of web pages, core features of
the client-side scripting language, event handling, control of win-
dows and frames, functions, and form validation. This course may
be taken twice using a different client-side scripting language.

CISW 405  ActionScript for Flash  3 Units
Prerequisite: ARTNM 404 or CISW 365 with a grade of “C” or better.
Advisory: CISP 300 or CISW 400.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces Macromedia Flash users to programming
with ActionScript to animate, process data, and create dynamic
content. It emphasizes the object-oriented capabilities of Macrome-
dia Flash, and instructs how to use ActionScript objects, methods,
events, properties, and functions, with an eye toward ActionScript
best practices.

CISW 410  Middleware Web Scripting  4 Units
Prerequisite: CISW 300 with a grade of “C” or better
Advisory: CISP 300 and CISW 310
Course Transferable to CSU
Hours: 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 script-
ing language, embedding server commands in HTML pages, control
structures, functions, arrays, form validations, cookies, environmen-
tal variables, email applications, and database-driven web applica-
tions. This course may be taken twice using different middleware
web scripting environment.

CISW 411  Middleware Scripting Database Web
Applications  2 Units
Prerequisite: CISW 410 with a grade of “C” or better.
Advisory: CISW 310.
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course includes interactive database applications for the Web
using a database and middleware scripting language. Topics include
organizing data, developing tables for databases, creating middleware
scripts that add, delete, sort, edit and merge the data in the database.
Maintaining database integrity, and using DHTML to streamline
certain client side functions such as form validation are covered.

CISW 420  Server-side Web Scripting  4 Units
Prerequisite: CISW 300 with a grade of “C” or better
Advisory: CISP 300 and CISW 310
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course emphasizes the creation of interactive web sites using a
server-side scripting language such as a Perl or Java. Topics include
core features of the server-side web scripting language, control struc-
tures, functions, arrays, form validation, regular expressions, cookies,
environmental variables, email applications, and database-driven web
applications. This course may be taken twice using a different server-
side web scripting language.

CISW 442  Web Publishing with XML  3 Units
Prerequisite: CISW 300 with a grade of “C” or better.
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course describes how to create well-formed and valid Exten-
sible Markup Language (XML) documents, which are later used in
conjunction with Extensible Style Sheet Language (XSL) to produce
Web pages and other result documents. Topics include formatting
XML documents with Cascading Style Sheets (CSS), Document
Type Definitions (DTD), XML Namespaces and Schemas, XPATH,
and Extensible Style Sheet Language Transforms (XSLT).

CISW 471  Interactive Multimedia Projects  4 Units
Same As: ARTNM 410
Prerequisite: ARTNM 402, ARTNM 404, CISW 300, CISC 310,
or CISW 365 with a grade of “C” or better
Advisory: ARTNM 328, CISW 410, and CISW 420
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course focuses on interactive multimedia project development.
Emphasis is placed on the project development cycle including de-
sign specification, research, production, modification, and presenta-
tion. Projects assigned are multifaceted, approaching the complexity
that individuals would be expected to encounter in the interactive
multimedia development industry. This course is not open to stu-
dents who have completed ARTNM 410.
Design Technology Degree and Certificate

The ARC Design Technology degree and certificate emphasizes the basic skills needed for success in architectural, mechanical, and engineering occupations. These include the design process, drafting standards and practices, technical communication, material sciences, and design critique. The use of computers and various computer-aided design and drafting (CADD) softwares are emphasized throughout the program.

Requirements for Degree or Certificate 39 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESGN 100</td>
<td>Introduction to Computer Aided Drafting and Design</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 102</td>
<td>Intermediate Computer Aided Drafting and Design</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 300</td>
<td>Introduction to Design Resources</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 308</td>
<td>Three Dimensional Design-Solids Modeling</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 310</td>
<td>Graphic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 320</td>
<td>Three Dimensional Graphics and Design</td>
<td>3</td>
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<tr>
<td>DESGN 330</td>
<td>Machine Design</td>
<td>3</td>
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<tr>
<td>DESGN 340</td>
<td>Architecture and Construction</td>
<td>4</td>
</tr>
<tr>
<td>DESGN 350</td>
<td>Surveying and Construction Measurement Techniques</td>
<td>4</td>
</tr>
<tr>
<td>or ENGR 310</td>
<td>Engineering Survey Measurements</td>
<td>4</td>
</tr>
<tr>
<td>DESGN 360</td>
<td>Commercial Engineering Design and Drafting</td>
<td>5</td>
</tr>
<tr>
<td>DESGN 405</td>
<td>Advanced Computer-Aided Drafting and Design (CADD)</td>
<td>3</td>
</tr>
</tbody>
</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

The Engineering Technology degree gives students a basic preparation in physics, mathematics, computer aided design and drafting (CADD), chemistry, manufacturing processes, engineering materials and other subjects necessary for the well trained engineering technician.

Career Opportunities

Upon completion of the A.S degree the engineering technician will be prepared to go directly into employment as a technical assistant to engineers, or other technical employment. The two-year A.S. degree program provides options for special concentration: engineering technology, architectural engineering technology, civil engineering technology, electrical engineering technology, or mechanical engineering technology. Engineering technicians are needed in the fields of manufacturing, architecture, construction, materials testing, public utilities and many other fields.

Requirements for Degree 41-44 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry</td>
<td>4-5</td>
</tr>
<tr>
<td>or CHEM 310</td>
<td>Chemical Calculations</td>
<td>4</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>CISA 316</td>
<td>Intermediate Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>DESGN 100</td>
<td>Introduction to Computer Aided Drafting and Design</td>
<td>3</td>
</tr>
<tr>
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</tr>
<tr>
<td>DESGN 300</td>
<td>Introduction to Design Resources</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 307</td>
<td>Industrial Materials Testing</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 308</td>
<td>Three Dimensional Design-Solids Modeling</td>
<td>3</td>
</tr>
</tbody>
</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.

Engineering Technology Certificate

The Engineering Technology certificate gives students a basic preparation in physics, mathematics, computer aided drafting and design (CADD), chemistry, manufacturing processes, engineering materials and other subjects necessary for the well trained engineering technician.

Career Opportunities

Upon completion of the two-year 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.

Requirements for Certificate 41-44 Units

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
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<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
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<td>CISA 316</td>
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<td>2</td>
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<tr>
<td>DESGN 100</td>
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</tr>
<tr>
<td>DESGN 308</td>
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<td>3</td>
</tr>
</tbody>
</table>
### Engineering: Transfer Degree

The purpose of the program is to provide academic preparation for transfer to California State University, Sacramento for the Engineering Construction Management Program or the Mechanical Engineering Technology Program. At the completion of the courses in the option, a student will obtain an A.S. Degree and have many of the courses required for transfer. Please check the current Articulation Agreement by Major at [www.assist.org](http://www.assist.org).

#### Construction Management Option 70-71.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 311</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 303</td>
<td>Survey of Biology</td>
<td>4</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<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>CISC 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>DESGN 100</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 102</td>
<td>Intermediate Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
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<tr>
<td>DESGN 310</td>
<td>Graphic Analysis</td>
<td>3</td>
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<tr>
<td>DESGN 340</td>
<td>Architecture and Construction (5)</td>
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<tr>
<td>or ENGR 360</td>
<td>Commercial Engineering Design and Drafting (5)</td>
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<tr>
<td>DESGN 350</td>
<td>Surveying and Construction Measurement Techniques (4)</td>
<td>4</td>
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<tr>
<td>or ENGR 310</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>
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<tr>
<td>or PHYS 350</td>
<td>General Physics</td>
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<tr>
<td>PHYS 350</td>
<td>General Physics</td>
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<tr>
<td>STAT 301</td>
<td>Introduction to Probability and Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following: 3

CSU course: Construction Management 22 (May be taken prior to transferring, consult with a counselor)

### Mechanical Engineering Technology Option 70-74 Units

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>or CHEM 400</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>or CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>and CISA 316</td>
<td>Intermediate Electronic Spreadsheets (2)</td>
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<tr>
<td>DESGN 100</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 102</td>
<td>Intermediate Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 300</td>
<td>Introduction to Design Resources</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 307</td>
<td>Industrial Materials Testing</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 308</td>
<td>Three Dimensional Design-Solids Modeling</td>
<td>3</td>
</tr>
<tr>
<td>DESGN 310</td>
<td>Graphic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 312</td>
<td>Engineering Graphics</td>
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</tr>
<tr>
<td>DESGN 330</td>
<td>Machine Design</td>
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<tr>
<td>DESGN 340</td>
<td>Architecture and Construction (5)</td>
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<tr>
<td>or DESGN 360</td>
<td>Commercial Engineering Design and Drafting (5)</td>
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<tr>
<td>DESGN 350</td>
<td>Surveying and Construction Measurement Techniques (4)</td>
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<tr>
<td>or ENGR 310</td>
<td>Surveying and Construction Measurement Techniques (4)</td>
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<tr>
<td>ENGR 320</td>
<td>Manufacturing Processes</td>
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<tr>
<td>MATH 350</td>
<td>Calculus for the Life and Social Sciences I</td>
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<tr>
<td>MATH 351</td>
<td>Calculus for the Life and Social Sciences II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 350</td>
<td>General Physics</td>
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<tr>
<td>PHYS 360</td>
<td>Physical Science</td>
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<tr>
<td>STAT 301</td>
<td>Introduction to Probability and Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following: 3

One or more transfer level Humanities course (numbered 300-499)

And a minimum of 3 units from the following: 3

One or more transfer level Language and Rationality course (numbered 300-499)

And a minimum of 6 units from the following: 6

Transfer level Social Science courses (numbered 300-499)

And a minimum of 5 units from the following: 5

Transfer level courses (numbered 300-499).

### Associate Degree Requirements:
The Engineering: Transfer 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.

#### DESGN 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 and applies the editing commands available in the software. It introduces basic drawings from architecture, mechanical design, electronics and space planning. This course may be taken four times using different software releases.

#### DESGN 102 Intermediate Computer Aided Drafting and Design (CADD) 3 Units

Prerequisite: DESGN 100 with a grade of “C” or better.

Hours: 36 hours LEC, 72 hours LAB

This course emphasizes advanced CADD commands and design graphics drawing principles. Orthographic and isometric projection principles are used for solving missing view problems with CADD as the tool for producing the drawings. Section views for mechanical and architectural applications are covered. Topics encompass architectural design, mechanical design, 3D-drawing, orthographic and isometric projection, sections, developments, attributes, civil drafting, and interior design and space planning. This covers the preparation for professional work skills and advanced design courses. This course may be taken four times using different software releases.

#### DESGN 298 Work Experience in Design Technology 1-4 Units

Hours: 72 hours LEC

#### DESGN 300 Introduction to Design Resources 3 Units

Advisory: ENGRW 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 survey of the resources that are used in the architectural and engineering professions for design planning, evaluation, and selection. It covers the methods and techniques used to determine human resources, evaluate and select materials for design, and disseminate design information.
DESIGN 308  Three Dimensional Design-Solids Modeling  3 Units
Prerequisite: DESGN 300, DESGN 100, and DESGN 320 with a grade of "C" or better.
Corequisite: DESGN 102.
Advisory: ENGWR 102 or 103, ENGRD 116; or ESLR 320 and ESLW 320.
Course Transferable to CSU
Hours: 36 hours LEC; 72 hours LAB
This course will cover the concepts and applications of three dimensional graphic design using AutoCAD solid modeling, mechanical desktop, and solid works software. Topics include the development and techniques for producing wire frame, surface, and solid models and their application in architectural and mechanical design. This course may be taken 4 times on different software releases.

DESIGN 310  Graphic Analysis  3 Units
Prerequisite: DESGN 100 with a grade of "C" or better.
Advisory: Design Technology 102.
Course Transferable to CSU
Hours: 36 hours LEC; 72 hours LAB
This course covers CADD applications of the orthographic projection and geometric construction principles to solve technical problems as well as graphical analysis of the true length, true shape, true angle in the solution of engineering and architectural problems. This course satisfies the transfer requirements to CSUS for engineering, engineering technology, and design technology students.

DESIGN 320  Three Dimensional Graphics and Design  3 Units
Advisory: ENGWR 102 or 103, ENGRD 116 or ESLR 320 and ESLW 320 or placement through assessment process.
Course Transferable to CSU
Hours: 36 hours LEC; 72 hours LAB
This course includes instruction and practice in freehand engineering and architectural technical expression in various graphic media. Additionally, students will develop design solutions represented in freehand perspectives and 3-D CADD solutions.

DESIGN 330  Machine Design  4 Units
Prerequisite: DESGN 310.
Advisory: DESGN 100.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers instruction in machine design and dimensioning of engineering machine drawings. Basic dimensioning of orthographic, sections, auxiliaries, forging, and casting drawings will be studied as well as basic manufacturing techniques. Emphasis will be placed on the latest ANSI Standard for Geometric Dimensioning and Tolerancing and its application to working drawings. Satisfies the transfer requirement for machine drawing to CSUS Mechanical Engineering Technology Program.

DESIGN 340  Architecture and Construction  5 Units
Prerequisite: DESGN 102, 310, and 320.
Course Transferable to CSU
Hours: 54 hours LEC; 108 hours LAB
This course covers individual and group exercises simulating typical design, drafting and procedures in architecture and construction. The course focuses on residential design and light commercial wood frame construction.

DESIGN 350  Surveying and Construction Measurement Techniques  4 Units
Prerequisite: DESGN 102, DESGN 310 with a grade of "C" or better.
Advisory: Math 120.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers basic measurement and alignment techniques used in light and heavy construction for design technology analysis. Additionally, the course includes site, road staking, cut and fill calculations, and elementary surveying principles.

DESIGN 360  Commercial Engineering Design and Drafting  5 Units
Prerequisite: DESGN 102 and 310 with a grade of "C" or better.
Advisory: Design Technology 320.
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 structures, land planning, and environmental systems in buildings. Design solutions are presented by freehand, manual drafting, and CADD application. The course includes both individual and team design problems.

DESIGN 405  Advanced Computer-Aided Drafting and Design (CADD)  3 Units
Prerequisite: DESGN 340 or 360 with a grade of "C" or better.
Course Transferable to CSU
Hours: 36 hours LEC; 72 hours LAB
This course emphasizes the study of electronic graphical data development, manipulation techniques, and research data retrieval within the areas of architectural and mechanical, and civil engineering applications. Data base development is applied to various technical design problems incorporating the design process. This course may be taken four times on different software versions.
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 Permits. Students who complete selected certificates in the ECE program are recommended by the American River College faculty to the Commission on Teacher Credentialing for direct issuance of Child Development Permits.

Early Childhood Education Degree

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.

Career Opportunities

Upon completion of the A.A. degree, a student possesses the course work required to work as a teacher in both private and public early care and education settings, serving infants through preschool-age children. Additionally, the individual can work as a teacher in before- and after school programs, serving school-age children.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 300</td>
<td>Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE 321</td>
<td>Advanced Principles and Practices in ECE</td>
<td>4</td>
</tr>
<tr>
<td>ECE 331</td>
<td>Education and Care of Infants in Group Settings</td>
<td>3</td>
</tr>
<tr>
<td>ECE 410</td>
<td>Health and Safety in Child Care Settings</td>
<td>1</td>
</tr>
<tr>
<td>ECE 420</td>
<td>Administration of Child Development Centers (3)</td>
<td>2-3</td>
</tr>
<tr>
<td>or ECE 424</td>
<td>Adult Supervision: Mentoring in a Collaborative Learning Setting</td>
<td>2</td>
</tr>
<tr>
<td>ECE 430</td>
<td>Culture and Diversity in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 6 units from the following:</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>ECE 305</td>
<td>Introduction to Family Child Care (1)</td>
<td></td>
</tr>
<tr>
<td>ECE 316</td>
<td>Mass Media and Young Children (1)</td>
<td></td>
</tr>
<tr>
<td>ECE 325</td>
<td>Guidance and Discipline for Young Children (3)</td>
<td></td>
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<tr>
<td>ECE 330</td>
<td>Infant Development (3)</td>
<td></td>
</tr>
<tr>
<td>ECE 356</td>
<td>Programs for the School-Age Child (3)</td>
<td></td>
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<tr>
<td>ECE 361</td>
<td>Introducing Young Children to Visual Arts (3)</td>
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<tr>
<td>ECE 363</td>
<td>Music and Movement with Young Children (3)</td>
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<tr>
<td>ECE 404</td>
<td>Children with Special Needs (3)</td>
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<tr>
<td>ECE 432</td>
<td>Leadership in Diversity (3)</td>
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</table>

Requirements for Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTRI 320</td>
<td>Children's Health, Safety and Nutrition (3)</td>
<td></td>
</tr>
<tr>
<td>or ECE 415</td>
<td>Children's Health, Safety and Nutrition (3)</td>
<td></td>
</tr>
</tbody>
</table>

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.

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.

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.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ECE 300</td>
<td>Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td></td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td></td>
</tr>
</tbody>
</table>

Associate Teacher Certificate

This certificate provides the educational coursework that serves as the core curriculum for the early childhood education field. Topics include an introduction to the profession, observation techniques, age-appropriate curriculum, and the child in the context of the family and community. Additionally, there is a focus on practicing these concepts in a supervised field/lab environment. With documented work experience, the student is also eligible to apply to the Commission on Teacher Credentialing for the Associate Teacher Child Development Permit.
### 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 associate or assistant teacher in a publicly funded (Title 5) early care and education program.

### Requirements for Certificate 13 Units
<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>4</td>
</tr>
</tbody>
</table>

### Teacher Certificate
This certificate provides a foundation for in-depth early childhood teacher preparation both through general education and through introductory studies in child development and in early childhood curriculum and pedagogy. Additionally, it covers culture and diversity issues in early childhood and health and safety practices. Students must verify required teaching experience to be recommended to the Commission on Teacher Credentialing for issuance of the Teacher Child Development Permit.

### 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 40 Units
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 300</td>
<td>Introduction to Early Childhood Education</td>
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<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>3</td>
</tr>
<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE 321</td>
<td>Advanced Principles and Practices in ECE</td>
<td>4</td>
</tr>
<tr>
<td>ECE 331</td>
<td>Education and Care of Infants in Group Settings (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ECE 356</td>
<td>Programs for the School-Age Child (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ECE 404</td>
<td>Children with Special Needs (3)</td>
<td>3</td>
</tr>
<tr>
<td>ECE 410</td>
<td>Health and Safety in Child Care Settings</td>
<td>1</td>
</tr>
<tr>
<td>ECE 430</td>
<td>Culture and Diversity in Early Childhood Education</td>
<td>3</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
This certificate meets the requirements for teaching in a publicly funded early care and education program. It requires an additional 6 units of specialized study beyond the teacher level certificate, allowing the student to select a particular focus of study (i.e., infant/toddler; culture and diversity; health and nutrition; children’s literature; and art or music for young children). Applicants must verify required experience teaching children and supervising staff to be recommended to the California Commission on Teacher Credentialing for issuance of the Master Teacher Child Development Permit.

### Career Opportunities
This certificate qualifies students to be a master teacher or a supervising teacher in early care and education programs. Upon completion of this certificate and with documented related experience, the individual is eligible to be a lead teacher and/or mentor teacher in both publicly and privately funded programs serving young children and their families.

### Core Requirements for Certificate 42 Units
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 300</td>
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<td>Child Development (3)</td>
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<td>Child Development (3)</td>
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<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE 321</td>
<td>Advanced Principles and Practices in ECE</td>
<td>4</td>
</tr>
<tr>
<td>ECE 331</td>
<td>Education and Care of Infants in Group Settings (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ECE 356</td>
<td>Programs for the School-Age Child (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ECE 404</td>
<td>Children with Special Needs (3)</td>
<td>3</td>
</tr>
<tr>
<td>ECE 410</td>
<td>Health and Safety in Child Care Settings</td>
<td>1</td>
</tr>
<tr>
<td>ECE 424</td>
<td>Adult Supervision: Mentoring in a Collaborative Learning Setting</td>
<td>2</td>
</tr>
<tr>
<td>ECE 430</td>
<td>Culture and Diversity in Early Childhood Education</td>
<td>3</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 Specialization Concentrations

#### Art with Children 48 Units

- Core Requirements: ................................................................. 42
- ECE 361 Introducing Young Children to Visual Arts:................. 3

#### And a minimum of 3 units from the following: 3
- ART 320 Design: Fundamentals (3)
- ART 432 Art for Children Practicum (2 - 4)
- ARTH 300 Introduction to Art (3)

#### Children’s Health, Safety and Nutrition 48 Units

- Core Requirements: ................................................................. 42
- ECE 415 Children’s Health, Safety and Nutrition (3):.............. 3
- or NUTRI 320 Children’s Health, Safety and Nutrition (3)
- NUTRI 300 Nutrition:............................................................... 3

#### Children’s Literature 48 Units

- Core Requirements: ................................................................. 42
- ENGLT 370 Children and Literature:........................................ 3
- ENGLT 372 Children and Literature: Storytelling:.................... 1
- ENGLT 374 Children and Literature: Multicultural Literature:.... 1
- ENGLT 376 Children and Literature: Reader’s Theatre:............... 1

#### Culture and Diversity 48 Units

- Core Requirements: ................................................................. 42
- ECE 432 Leadership in Diversity:............................................ 3

#### And a minimum of 3 units from the following: 3

Any course from Area VI of the ARC GE graduation requirements, with the exception of ECE 430.

#### Drama with Children 48 Units

- Core Requirements: ................................................................. 42
- TA 400 Creative Drama for Children:.................................... 3
- TA 404 Techniques of Puppetry (3):....................................... 3
- or TA 406 Children’s Theatre (3)
null
Requirements for Certificate 20 Units
ECE 300 Introduction to Early Childhood Education 3
ECE 312 Child Development (3) 3
or PSYC 372 Child Development (3) 3
ECE 314 The Child, the Family and the Community 3
ECE 320 Principles and Practices in Early Childhood Education 4
ECE 410 Health and Safety in Child Care Settings 1
ECE 430 Culture and Diversity in Early Childhood Education 3
ECE 432 Leadership in Diversity 3

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.

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 8 Units
ECE 305 Introduction to Family Child Care 1
ECE 312 Child Development (3) 3
or PSYC 372 Child Development (3) 3
ECE 314 The Child, the Family and the Community 3
ECE 410 Health and Safety in Child Care Settings 1

Family Service Certificate
This certificate provides a foundation in early childhood education and includes courses specific to providing support services to families. Topics include child development theories and principles, the child in the context of family and culture, and an introduction to the field of human services.

Career Opportunities
Upon completion of this certificate, the student is prepared to be a family support service worker in early care and education programs. Additionally, the student is eligible to be a teacher in a privately funded (Title 22) early care and education program, serving infants through preschool-age children.

Requirements for Certificate 15 Units
ECE 312 Child Development (3) 3
PSYC 372 Child Development (3) 3
ECE 314 The Child, the Family and the Community 3
ECE 430 Culture and Diversity in Early Childhood Education 3
ECE 440 Intro to Family Support Services in Early Childhood Education 3
HSER 300 Introduction to Human Services 3

Infant Specialist Certificate
This certificate provides the educational coursework that serves as the core curriculum for the early childhood education field. Topics include an introduction to the profession, observation techniques, age-appropriate curriculum, and a supervised field/lab experience. Additionally, it focuses on infant development and the care of education of infants/toddlers in group settings.

Requirements for Certificate 21 Units
ECE 300 Introduction to Early Childhood Education 3
ECE 312 Child Development (3) 3
or PSYC 372 Child Development (3) 3
ECE 314 The Child, the Family and the Community 3
ECE 320 Principles and Practices in Early Childhood Education 4
ECE 330 Infant Development 3
ECE 331 Education and Care of Infants in Group Settings 3
ECE 334 Laboratory with Infants and Toddlers 1
ECE 410 Health and Safety in Child Care Settings 1

Management Specialist Certificate
This certificate provides the educational coursework that serves as the core curriculum for the early childhood education field. Topics include an introduction to the profession, observation techniques, 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.

Career Opportunities
Upon completion of the 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.

Requirements for Certificate 22 Units
ECE 300 Introduction to Early Childhood Education 3
ECE 312 Child Development (3) 3
or PSYC 372 Child Development (3) 3
ECE 314 The Child, the Family and the Community 3
ECE 320 Principles and Practices in Early Childhood Education 4
ECE 410 Health and Safety in Child Care Settings 1
ECE 420 Administration of Child Development Centers 3
ECE 422 Advanced Coordination /Supervision of Child Development Programs 3
ECE 424 Adult Supervision: Mentoring in a Collaborative Learning Setting 2

School Age Specialist Certificate
This certificate provides the educational coursework that serves as the core curriculum for the early childhood education field. Topics include an introduction to the profession, observation techniques, age-appropriate curriculum, and a supervised field/lab experience. Additionally, it covers specific school-age program requirements and activities.

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.
### Requirements for Certificate  20 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 300</td>
<td>Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE 356</td>
<td>Programs for the School-Age Child</td>
<td>3</td>
</tr>
<tr>
<td>ECE 358</td>
<td>Activities for the School-Age Child (Six to Fourteen Years)</td>
<td>3</td>
</tr>
<tr>
<td>ECE 410</td>
<td>Health and Safety in Child Care Settings</td>
<td>1</td>
</tr>
</tbody>
</table>

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### ECE 120  Effective Discipline for Foster Parents

**Hours:** 18 hours LEC  
This course provides foster parents discipline techniques which are effective in the production of positive behaviors in the children and youth placed in their care. The parenting theories of Fay, Cline and Fay's "Love and Logic" are emphasized. This course meets requirements for continuing education for Sacramento County licensed foster parents or kinship care providers.

**Prerequisite:** ECE 300 and either ECE 312 or PSYCH 372.  
ECE 300 and ESLW 320 with a grade of "C" or better; OR ESLR 320 and ESELW 320 with a grade of "C" or better; OR placement through assessment process.

---

### ECE 122  Competence in Diversity

**Hours:** 18 hours LEC  
This course identifies the importance of promoting the self-esteem of foster children through personal history and culture. Techniques for promoting a positive sense of identity are emphasized. This course includes critical issues that face foster parents and the children they care for in a poly-ethnic and otherwise diverse community. This course meets state requirements for continuing education for Sacramento County licensed foster parents and kinship care providers.

**Prerequisite:** ECE 300 and either ECE 312 or PSYCH 372.  
ECE 300 and ESLW 320 with a grade of "C" or better; OR ESLR 320 and ESELW 320 with a grade of "C" or better; OR placement through assessment process.

---

### ECE 293  Special Topics in Foster Care Education

**Hours:** 18 hours LEC  
This course gives foster parents an opportunity to study various topics in Foster Care Education which are related to their job of raising foster children and will apply toward annual mandated continuing education requirements. May be taken four times for credit.

**Prerequisite:** ECE 300 and either ECE 312 or PSYCH 372.  
ECE 300 and ESLW 320 with a grade of "C" or better; OR ESLR 320 and ESELW 320 with a grade of "C" or better; OR placement through assessment process.

---

### ECE 294  Topics in Early Childhood Education

**Hours:** 72 hours LEC  
This course provides opportunity to study current topics in early childhood education which are either, not included in current offerings, or require emphasis beyond that offered in existing courses. The course may be taken four times up to a maximum of 6 units providing there is no duplication of topics.

**Prerequisite:** ECE 300 and either ECE 312 or PSYCH 372.  
ECE 300 and ESLW 320 with a grade of "C" or better; OR ESLR 320 and ESELW 320 with a grade of "C" or better; OR placement through assessment process.

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### ECE 305  Introduction to Family Child Care

**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.

**Prerequisite:** ECE 300 and either ECE 312 or PSYCH 372.  
ECE 300 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.

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### ECE 312  Child Development

**Same As:** PSYC 372  
**Advisory:** ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESELW 320 with a grade of "C" or better; OR placement through assessment process.

**General Education:** AAAS Area V(b); CSU Area D7; IGETC Area 41  
**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 environment. 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.

**Prerequisite:** ECE 300 and either ECE 312 or PSYCH 372.  
ECE 300 and ESLW 320 with a grade of "C" or better; OR ESLR 320 and ESELW 320 with a grade of "C" or better; OR placement through assessment process.

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### ECE 314  The Child, the Family and the Community

**Course Transferable to UC/CSU**  
**Hours:** 54 hours LEC  
This course covers the child's development within the family and within the community. The focus is on the impact of parenting style, marriage and transitions within the family, culture, school, 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.

**Prerequisite:** ECE 300 and either ECE 312 or PSYCH 372.  
ECE 300 and ESLW 320 with a grade of "C" or better; OR ESLR 320 and ESELW 320 with a grade of "C" or better; OR placement through assessment process.

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### ECE 316  Mass Media and Young Children

**Course Transferable to CSU**  
**Hours:** 18 hours LEC  
This course covers the role of mass media in socializing young children. Emphasis is on the influence of mass media on development, including the impact of television, movies, commercial advertising, books, and popular music, with discussion of strategies for minimizing the negative influences of mass media on children.

**Prerequisite:** ECE 300 and either ECE 312 or PSYCH 372.  
ECE 300 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.

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### ECE 320  Principles and Practices in Early Childhood Education

**Hours:** 36 hours LEC; 108 hours LAB  
This course provides supervised experience working with children in an early childhood setting. Topics include principles of curriculum development, classroom design, and child guidance, with opportunity to apply these key teaching principles in practical situations.
ECE 321  Advanced Principles and Practices in Early Childhood Education  4 Units
Prerequisite: ECE 320 with a grade of "C" for better.
Enrollment Limitation: Current tuberculosis clearance.
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 and 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.

ECE 325  Guidance and Discipline for Young Children  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on early childhood guidance and discipline through examination of theories, research and practical application for teachers in early childhood classrooms and parents at home. Developmental stages of children's behavior, positive discipline techniques and teaching social emotional skills are included.

ECE 330  Infant Development  3 Units
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course is an examination of infant development, from conception to three years of age, offering parents and professionals in health, education, and social service key findings from research science to guide preparation for conception, birth, and the care and rearing of infants.

ECE 331  Education and Care of Infants in Group Settings  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course applies current research in infant development to the teaching and care of infants in group settings. Emphasis is on early childhood education principles and practices when applied to the care and education of infants from birth to three years of age. It includes strategies for designing, implementing, and evaluating group care programs for infants.

ECE 334  Laboratory with Infants and Toddlers  1 Unit
Corequisite: ECE 330 or 331
Enrollment Limitation: Current Tuberculosis Clearance.
Course Transferable to CSU
Hours: 54 hours LAB
This class provides experience working with infants and toddlers in a group care program. It is designed as a laboratory for those who have completed or are enrolled in ECE 330 or 331. The course requires participation for a designated three hours per week with infants and/or toddlers in a supervised infant/toddler setting. This course may be taken three times for credit, each time in a setting with a different age group or program type.

ECE 342  Constructive Math and Science in Early Childhood Education  3 Units
Advisory: ENGRD 116 and ENGWR 102
Course Transferable to CSU
Hours: 54 hours LEC
The course is an introduction to the constructivist approach to teaching pre-math and science in early childhood education. The content and teaching techniques support the perspective that children construct knowledge through a dynamic, interactive process that facilitates their development of working theories related to math and science. Topics include an overview of the role of the teacher in developing appropriate experiences for children and a review of current standards and guidelines.

ECE 343  Language and Literacy Development in Early Childhood  3 Units
Advisory: ENGRD 116 and ENGWR 102
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
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a career exploration course with an early field experience for K-8 teaching. It includes a supervised field placement of four hours weekly in a local elementary school in addition to weekly class meetings on campus. It will fulfill one of the early field experiences for the CSUS blended liberal studies major. Course content includes the profession and culture of teaching, observation skills, communication skills, diversity, and social issues. Field experience will integrate and apply the course content. Not open to students who have completed ENGED 324.

ECE 356  Programs for the School-Age Child  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the fundamentals of planning, implementing and evaluating programs for before- and after-school care of school-age children (K-8). Emphasis is on developmental levels, age-appropriate activities and day-to-day program operations.

ECE 358  Activities for the School-Age Child (Six to Fourteen Years)  3 Units
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.
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 will be 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 focuses on the use of music and movement with children from infancy to age eight in group settings. Theoretical perspectives are reviewed and blended with practical applications that the teacher of young children can use to form a classroom community of learners, manage classroom behavior, and facilitate transitions. It will develop music and movement experience plans and create musical instruments from inexpensive, readily available materials. It will also explore music and movement as ways to involve children with cultural diversity and traditions.

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 provides a broad overview of the characteristics, assessment techniques, methods of intervention, community and family resources, and current issues of young children (from birth to age eight) with special needs. The focus is to increase the awareness and understanding of children's individual needs in an early childhood setting and to provide practical information to those currently involved with children with special needs. Observations in public or private children's centers, schools, and agencies may be required.

ECE 405  Practicum in Inclusive Settings  3 Units
Prerequisite: ECE 404 with a grade of “C” or better
Enrollment Limitation: Current tuberculosis and fingerprint clearance.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides supervised experience working with children with special needs in an inclusive school setting. Topics include integration strategies, classroom environments, and individualized instructional strategies for children. Emphasis is placed on providing skills in individualizing programs for communication, modifications, adaptations and behavior.

ECE 410  Health and Safety in Child Care Settings  1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course covers health and safety issues in center and home-based early care and education programs. It includes preventative health practices such as control of infectious diseases, injury prevention, nutrition, sanitation, emergency preparedness and evacuation. Along with ECE 414 (HEED 311), fulfills Title 22 (CA Department of Social Services) Health and Safety requirements for staff.

ECE 414  CPR and Pediatric First Aid  1.5 Units
Same As: HEED 311
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
Course Transferable to CSU
Hours: 27 hours LEC
This course covers emergency life saving and first aid techniques involving infants and children. Respiratory distress, non-breathing, unconsciousness, choking, and other pediatric emergencies are addressed. CPR for adults is another major component of the course. The California Child Care first aid certificate examination, the Adult CPR, and the Infant and Child CPR examination are included. ECE 410 and this course fulfill Title 22 (California Department of Social Services) Health and Safety requirements for staff. ECE 414/HEED 311 may be taken four times.

ECE 415  Children's Health, Safety and Nutrition  3 Units
Same As: NUTRI 320
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
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 identification of nutrients in foods as they affect a child's physical and mental development and standards for the maintenance of optimal health, safety, and nutrition status of children at home and in group care. Projects relating to children's nutrition, health, and safety are required as part of the course. This course is not open to students who have taken NUTRI 320.

ECE 420  Administration of Child Development Centers  3 Units
Prerequisite: ECE 300 with a grade of “C” or better; or, one year of teaching experience documented with verification of experience form.
Course Transferable to CSU
Hours: 54 hours LEC
This is an introductory course in the elements of program planning, budgeting, supervision and personnel administration for schools and private child development centers serving children and families. This course satisfies the administration requirement of the California Title 22 Health and Safety Code, and satisfies three of the six units of the administration requirement of the Title 5 Education Code and the California Commission for Teacher Credentialing.

ECE 422  Advanced Coordination and Supervision of Child Development Programs  3 Units
Prerequisite: ECE 420 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC
This is an advanced course in administration and coordination of multi-faceted child development programs. The emphasis of the course is on publicly-funded programs and personnel management. It meets the requirements of the Education Code under Title 5 and the Commission for Teacher Credentialing.
ECE 424  Adult Supervision: Mentoring in a Collaborative Learning Setting  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course covers principles and strategies for teachers who supervise the work of other teachers in early childhood education. Emphasis is on the role of the mentor teacher working collaboratively to guide a teaching team within a classroom setting. This course satisfies the adult supervision requirement for the Master Teacher Permit issued by the California Commission on Teacher Credentialing.

ECE 430  Culture and Diversity in Early Childhood Education  3 Units
General Education: AA/AS Area V(b); AA/AS Area VI
Course Transferable to CSU
Hours: 54 hours LEC
This course covers culturally responsive care and education in early childhood settings. It includes the study of socio-cultural issues as they vary across the diverse cultures represented in the classroom and as they impact a child’s development. Included are strategies for helping children negotiate and resolve conflicts caused by cultural differences, with a focus on using an anti-bias approach in the classroom.

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. Specific cultural differences are researched and similarities and differences are addressed. Additionally, it critically discusses the role of individual perspective and suggests ways for teachers to respond to diverse viewpoints of families and staff in an anti-bias classroom.

ECE 440  Introduction to Family Support Services in Early Childhood Education  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course covers principles and practices for support services provided to families with young children. Emphasis is on family self-identification of goals and nurturing the development of children in the context of family and culture. Techniques for building family relationships, accessing community services and enhancing problem solving skills are presented. Advocacy for community support for families of all cultures is included.

ECE 455  Environment Rating Scales in Early Childhood Programs  1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course examines Environment Rating Scales (Infant/Toddler, Early Childhood, School Age Programs and Family Child Care) as a tool for quality improvement in a variety of child development programs. Emphasis is given to theory and best practices in order to evaluate classrooms, materials, and interactions between adults and children.
Area: Behavioral & Social Sciences
Dean: Carol Pottorff
Phone: (916) 484-8283
Counseling: (916) 484-8572

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.

ECON 302 Principles of Macroeconomics 3 Units
Advisory: MATH 100 with a grade of “C” or better; ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course, an introduction to macroeconomics, is concerned with the economic well-being of the national economy. Topics covered include supply, demand, aggregate supply, aggregate demand, equilibrium, money, banking, taxation, inflation, employment, and economic growth.

ECON 304 Principles of Microeconomics 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; Math 100 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is concerned with individuals and business firms and how they interact 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. Additionally, it covers resource allocation under conditions of competition, monopoly, oligopoly, and monopolistic competition.

ECON 320 Concepts in Personal Finance 3 Units
Same As: BUS 320
Advisory: ENGRD 116, ENGWR 102, ENGWR 103, ESLR 320, and ESLW 320; ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.
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 is designed to assist individuals to analyze their financial affairs for lifelong decision making. Elements and conceptual basis of financial planning and the analysis and decision making in areas of budgeting, taxes, borrowing, money management, insurance, investments, and retirement will be examined. Not open to students who have completed BUS 320.
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.

**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.

**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 Telecommunication Engineers (NARTE) for the Federal Communication Commission (FCC) General Radio Telephone License. Included in the electronics program is an FCC license preparation course. Obtaining the degree or certificate improves the opportunities for quality employment and career advancement.

**Requirements for Degree**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ET 115</td>
<td>Fiber Optics and Telecommunication Cabling</td>
<td>4</td>
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<tr>
<td>ET 143</td>
<td>Computer Upgrade, Repair, and Assembly</td>
<td>2</td>
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<tr>
<td>ET 302</td>
<td>Principles of Electricity and Electronics</td>
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<tr>
<td>ET 307</td>
<td>High Tech Soldering and Fabrication Techniques</td>
<td>2</td>
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<tr>
<td>ET 311</td>
<td>Mathematics for AC Circuit Fundamentals, Part II</td>
<td>1.5</td>
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<tr>
<td>ET 322</td>
<td>Semiconductor Devices and Applications</td>
<td>5</td>
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**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.

**Mechtronics Degree and Certificate**

This degree or certificate provides training in a multi-disciplinary field of which the primary focus is industrial automation. Topics such as electricity, electronics, industrial motor controls, programmable logic controllers, robotics, AC/DC drives, mechanical design, and manufacturing technologies are covered in this program.

**Career Opportunities**

This degree or certificate prepares the student for the following career opportunities: Industrial mechanical/electrical systems technician, food processing machine service technician, facilities systems technician, waste water systems technician, manufacturing coordinator, field service technician, mechanical electrical machine systems installer. Obtaining the degree or the certificate improves the opportunities for quality employment and career advancement.

**Requirements for Degree or Certificate**

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<td>ET 302</td>
<td>Principles of Electricity and Electronics</td>
<td>4</td>
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<tr>
<td>DESGN 100</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
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<tr>
<td>WELD 300</td>
<td>Introduction to Welding</td>
<td>3</td>
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<tr>
<td>DESGN 102</td>
<td>Intermediate Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
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<tr>
<td>ENGR 307</td>
<td>Industrial Materials Testing</td>
<td>3</td>
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<tr>
<td>ET 143</td>
<td>Computer Upgrade, Repair, and Assembly</td>
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<tr>
<td>ET 192</td>
<td>Introduction to Robotics</td>
<td>2</td>
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<tr>
<td>ET 194</td>
<td>Intermediate Robotics</td>
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</table>

American River College Catalog 2008-2009
Basic Electronics and Telecommunications Certificate

The Basic Electronics and Telecommunication 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.

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<td>High Tech Soldering and Fabrication Techniques</td>
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</table>

Career Opportunities

The Basic Electronics and Telecommunications certificate is designed for anyone wanting to enter the electronics or 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.

Advanced Electronics and Telecommunications Certificate

This Advanced Electronics and Telecommunications certificate provides training in electronic system component identification and characteristics; computer component identification, repair, and upgrading; semiconductor theory and application; power supply design and operation; telecommunication copper and fiber optic systems; and advanced troubleshooting. This certificate is designed to be completed in two semesters.

Requirements for Certificate

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Career Opportunities

The Advanced Electronics and Telecommunications certificate enables those students who have completed this certificate or are currently working in industry to quickly progress up the career ladder. More skills in the critical areas along with added electronics and telecommunications theory and laboratory practice make this an ideal certificate for those wishing to upgrade and update their electronics skills.

CMOS Mask Design Certificate

The CMOS Mask Design Certificate presents advanced semiconductor theory. Topics include semiconductor physical design rules and integrated circuit concepts. State of the art design software provides hands on experience.

Requirements for Certificate

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<tr>
<td>CISC 320</td>
<td>Operating Systems</td>
<td>1</td>
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<tr>
<td>CISC 361</td>
<td>Microcomputer Support Essentials - Preparation for A+ Certification</td>
<td>3</td>
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<tr>
<td>CISC 363</td>
<td>Microcomputer Support Technical - Preparation for A+ Certification</td>
<td>3</td>
</tr>
<tr>
<td>ET 143</td>
<td>Computer Upgrade, Repair, and Assembly</td>
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<tr>
<td>ET 298</td>
<td>Work Experience in Electronics Technology</td>
<td>1 - 4</td>
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<tr>
<td>ET 307</td>
<td>High Tech Soldering and Fabrication Techniques</td>
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</table>

Career Opportunities

By earning a CMOS Mask Design Certificate students are qualified for a wide variety of employment opportunities at an entry level position in the semiconductor industry. Experience using state of the art design software allows students hands on experience using the same programs used by industry. Incorporating semiconductor theory along with semiconductor physical design rules and concepts make this an ideal certificate for those desiring employment in the semiconductor manufacturing industry.

Digital Repair and Upgrade Technician Certificate

The Digital Repair and Upgrade Technician 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.

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Fiber Optics Certificate

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.

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<tr>
<td>ET 298</td>
<td>Work Experience in Electronics Technology</td>
<td>1 - 4</td>
</tr>
<tr>
<td>ET 307</td>
<td>High Tech Soldering and Fabrication Techniques</td>
<td>2</td>
</tr>
</tbody>
</table>

Career Opportunities

The Fiber Optic 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.
Robotics Certificate

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.

Requirements for Certificate 15 Units
ET 192 Introduction to Robotics ........................................... 2
ET 194 Intermediate Robotics ........................................... 2
ET 195 Electrical and Mechanical Power and Control Systems ...... 3
ET 196 Sensors, Measurement, and Control ................................ 2
ET 302 Principles of Electricity and Electronics ........................... 4
ET 307 High Tech Soldering and Fabrication Techniques ............. 2

Telecommunication Specialist Certificate

The Telecommunication Specialist certificate provides an overview of electronics and telecommunications systems. Topics include antennas, transmitters and receivers, transmission lines, and signal propagation. System design and troubleshooting are also included.

Requirements for Certificate 22 Units
1st Semester
ET 115 Fiber Optics and Telecommunication Cabling ................. 4
ET 302 Principles of Electricity and Electronics ....................... 4
ET 307 High Tech Soldering and Fabrication Techniques ............ 2
Other Semesters
ET 112 Communications Units ........................................... 3
ET 380 Introduction to Electronic Communications ................... 4
ET 386 Fiber Optic Splicing, Connectivity and Testing ............... 3
ET 387 Advanced Fiber Optics ........................................... 2

ET 20 Mobile and Cellular Radio Systems 2 Units
Prerequisite: ET 102.
Hours: 36 hours LEC
Nature of mobile radio signal and its properties. Statistical communication theory introduced and applied in four areas of mobile communications: propagation, received signal characteristics, functional design and system performance. Historic, legal and regulatory aspects of cellular radio industry. Covers specific services and features of the technology, control architectures and switching systems, and siting and economic considerations.

ET 100 Introduction to Telecommunications Systems 3 Units
Prerequisite: ET 100 with a grade of “C” or better, or Telecommunications Industry Experience.
Hours: 54 hours LEC
This course is an overview of the Telecommunication Industry focusing on both voice and data communication. Terminology, concepts and telecommunication practices are covered along with new and emerging changes in switching systems caused by the next generation of Internet. Additionally, this course focuses on systems that transfer data from one location to another. Field trips are required.

ET 102 Advanced Telecommunication Systems 3 Units
Prerequisite: ET 330 or 335; and ET 380 with a grade of “C” or better.
Hours: 54 hours LEC
This course expands on the concepts mastered in the Introduction to Telecommunication Systems course. Voice/data switching and transmission theory including system operation and design are covered in detail. Emphasis is placed on fiber optics and the newest methods of high speed data transfer. Also included are advanced high speed switching/routing systems along with their associated hardware/software. Dense Wave Division Multiplexing (DWDM) is also covered. Field Trips are required.

ET 110 Communications Systems 5 Units
Prerequisite: ET 330 or 335; and ET 380 with a grade of “C” or better.
Hours: 54 hours LEC; 108 hours LAB
This course is a comprehensive study of high frequency communication concepts including antennas, transmission lines, transmitters and receivers. Commercial telecommunication equipment and schematics are used to simulate equipment that is utilized in industry. System design, component and equipment analysis and troubleshooting are stressed. Extensive use of laboratory experiments enhances theory. A field trip is required.

ET 112 Federal Communication Commission License Preparation 3 Units
Advisory: ET 380 or Communication industry experience.
Hours: 54 hours LEC
This course is preparation for the Federal Communication Commission (FCC) General Radiotelephone license examination. The course covers both the electronics theory required and the rules and regulations mandated by the FCC. Field trips are required. This course may be taken four times for credit.

ET 114 Basic Electricity and Electronics for Installation Specialists 5 Units
Advisory: ENGWR 102 or 103, and ENGRD 116; or ESLR 320 and ESLW 320; or placement through assessment process.
Hours: 54 hours LEC; 108 hours LAB
This course is an introduction to the concepts of Direct and Alternating Current Theory. It includes a detailed study of commonly used circuit components, mathematical concepts necessary for calculating circuit values, relationships of components in series, parallel and combination DC and AC circuit configurations and reading electrical diagrams and schematics. Emphasis is on applying electronic concepts to practical situations.
### ET 115 Fiber Optics and Telecommunication Cabling 4 Units
*Advisory: ET 307. Hours: 54 hours LEC; 54 hours LAB*
This course is an introduction to the concepts of telecommunication cable installation and connection practices and standards. It includes the study of commonly used fiber and copper cable types and connectors, installation tools, and test equipment. Emphasis is on installation techniques in practical situations. Laboratory activities provide practical experience in the operation and use of tools and test equipment specific to the telecommunication industry. Field trips are required.

### ET 130 Introduction to High Definition Digital Television 3 Units
*Hours: 54 hours LEC. This course covers the theory and operation of High Definition Digital Television. It covers the concepts and circuitry involved in this medium. Analogies between analog and digital systems are featured enabling an understanding of current technology. Field trips are required.*

### ET 143 Computer Upgrade, Repair, and Assembly 2 Units
*Hours: 18 hours LEC; 54 hours LAB. This course covers basic personal computer upgrading, repair, and assembly. Safety, terminology, component identification, file management, upgrades, and virus protection are among the topics that are covered. This class may be taken twice for credit.*

### ET 154 Wireless Communication Systems 1.5 Units
*Hours: 18 hours LEC; 27 hours LAB. This is an introduction to wireless communication designed for electronic technicians. The course includes wireless communication terminology and instruction in the proper use of hardware and test equipment used in installation, maintenance and operation. Topics include the study of individual system component theory and operation as well as the entire wireless communication system.*

### ET 162 Home Electronics and Power 1 Unit
*Hours: 18 hours LEC. This course is an overview of the power and electronics used in the modern home. It covers the power distributed through the home as well as the appliances and communication systems used. The topics of home security, power conservation, alternate energy sources, and home automation are also covered.*

### ET 190 Introduction to Programmable Logic Controllers (PLCs) 2 Units
*Corequisite: ET 330. Hours: 36 hours LEC. This course is an introduction to the operation and use of the Programmable Logic Controller (PLC), an electronic device that controls machines and processes. The PLC uses a programmable memory to store instructions and executes specific functions that include on/off control, timing, counting sequencing arithmetic, and data handling. Ladder logic is used in programming and troubleshooting the PLC. May be taken twice for credit.*

### ET 192 Introduction to Robotics 2 Units
*Hours: 36 hours LEC. This course is an introduction to robotics utilizing the Parallax stamp microcontroller and Boe-Bot robotic vehicle. It explores how robots and microcontrollers interface with common electronic applications. It also investigates unusual and innovative applications for robots and microcontrollers. Field trips are required.*

### ET 194 Intermediate Robotics 2 Units
*Hours: 36 hours LEC. This course covers advanced robotics utilizing the Parallax stamp microcontroller and Boe-Bot robotic vehicle. Topics include the operation and design of robots using the Robix robotic platform. This course includes how robotics and automation are utilized in industry. Hardware component selection, assembly, and software programming of various types of robotic assemblies are emphasized. The principles of electronics, physics, and engineering as they apply to robotic design are presented. Field trips are required.*

### ET 195 Electrical and Mechanical Power and Control Systems 3 Units
*Hours: 54 hours LEC. This course is a study of electrical and mechanical power components and systems used in the control and transmission of mechanical and electrical power. Topics include the analysis of electric circuits and controls; programmable logic controllers (PLCs); electromagnetic devices and their use in systems; discrete semiconductor switching devices; hydraulic and pneumatic power devices; types and uses of electric motors and generators as well as power distribution systems. Troubleshooting and repair of hydraulic, pneumatic control equipment and electrical and electronic systems are studied through a number of industry-based projects.*

### ET 196 Sensors, Measurement, and Control 2 Units
*Hours: 36 hours LEC. This course is a detailed study of the physical world and the sensors which measure its properties. Signals from these sensors are converted for display and used to control physical properties such as temperature or pressure. Lecture and demonstrations reinforce theory and provide experience in sensor identification and troubleshooting. PLCs and STAMP micro controllers are used to simulate industrial situations.*

### ET 205 CMOS Mask Design I 3 Units
*Corequisite: ET 330. Hours: 54 hours LEC. This course is an entry level integrated circuit (IC) layout and design in CMOS (Complementary Metal-Oxide-Silicon) technology. This course provides practical experience in drawing logic diagrams, transistor level schematics, cross sectional views, STIK diagrams, and in converting STIKS to the actual layout of the layers that will be used to manufacture the IC. The course stresses application of design rules, area estimation, and pin and bus placements.*

### ET 206 CMOS Mask Design II 3 Units
*Prerequisite: ET 205 with a grade of “C” or better. Hours: 36 hours LEC; 54 hours LAB CMOS Mask Design II is a continuation of CMOS Mask Design I (ET 205). This course introduces more complex logic and design rules for integrated circuit layout. This course also includes practical experience in the use of a Unix-based integrated circuit design tool, Cadence VLE, from Cadence Design Systems.*

### ET 250 Employability Skills for Technical Careers 2 Units
*Same As: AT 107 and WELD 150 General Education: AAS Area III(b) Hours: 36 hours LEC. This course provides the opportunity of exploring technical careers while developing valuable work and life skills. It is an introduction to a variety of technically-related occupations. Emphasis is placed on exploring technical careers in the Sacramento area. Activities are designed to enhance personal development, employability skills, and self esteem through leadership, citizenship, and character development.*
ET 251  Automotive Electronic Accessories and Installation  3 Units
Same As: AT 251
Corequisite: AT 312 or ET 302
Hours: 54 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. Topics related to this course cover the areas for the certification testing required to become a qualified Mobile Electronics Certified Professional (MECP) installer. A field trip is required. This course is not open to students who have taken AT 251.

ET 294  Topics in Electronics Technology  .5-.5 Units
Prerequisite: To be determined for each topic.
Hours: 90 hours LEC, 270 hours LAB
This is an individualized course developed in cooperation with industry to meet specialized training needs. It may be taken four times with no duplication of topics.

ET 298  Work Experience in Electronics Technology  1-4 Units
Enrollment Limitation: Be in a paid or non-paid internship, volunteer opportunity or job related to the electronics industry.
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in the electronics field or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Rigor is ensured through the development of appropriate level learning objectives set between the student and the employer. During the course of the semester, the student is required to fulfill a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. The weekly orientation is required for first time participants, returning participants are not required to attend the weekly orientation but are required to meet with the instructor as needed to complete all program forms and assignments. ET 298 may be taken for a total of 16 units when there are new or expanded learning objectives. Students can earn a total of 16 Work Experience units.

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. Complete systems such as robotics, Global Positioning Systems (GPS), computers, and home electronics are used to demonstrate component application. The use of electronic simulation software combined with actual hands on lab experiments reinforces theory. Various test equipment such as digital four channel color oscilloscopes, Digital Multi Meters and programmable function generators are used to demonstrate electronic principles and theory of AC, DC, Ohm's law, inductance and capacitance as they apply to voltage and frequency response. Field trips to local electronics industries are required.

ET 307  High Tech Soldering and Fabrication Techniques  2 Units
Advisory: ET 302.
Course Transferable to CSU
Hours: 18 hours LEC, 54 hours LAB
This course teaches fundamental soldering techniques required in the Electronics industry. Lecture and lab exercises introduce state of the art processes involving safety, component and tool identification, diagrams, terms, standards, soldering [plated through hole (PTH), surface mount (SMT), fine and ultra fine pitch], de-soldering, electrostatic discharge (ESD), devices and assembly. Field trips are required. This course may be taken twice for credit.

ET 310  Mathematics for DC Circuit Fundamentals, Part I  1.5 Units
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 27 hours LEC
This course covers mathematics for direct current (DC) circuit fundamentals. Powers of ten, algebra and other mathematical concepts necessary for calculation of resistance, DC voltage and current distribution in series, parallel, and combination circuits are covered.

ET 311  Mathematics for AC Circuit Fundamentals, Part II  1.5 Units
Prerequisite: ET 310 with a grade of “C” or better.
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 27 hours LEC
The foundations of mathematics used in the analysis of alternating current (AC) circuits are covered in this course. Topics include algebra and trigonometry for the mathematical analysis of AC circuits involving resistance, capacitance, inductance and/or reactances in series, parallel and combination circuits.

ET 322  Semiconductors and Nanotechnology  5 Units
Prerequisite: ET 302 with a grade of “C” or better.
Advisory: ET 310 and 311.
Course Transferable to CSU
Hours: 54 hours LEC, 108 hours LAB
This course is a detailed study of semiconductor and nanotechnology devices and their applications. Semiconductor manufacturing and components such as diodes, transistors, op-amps, and field programmable analog arrays (FPAA), including their use in complex circuits are covered. Nanotechnology theory and devices including their present and possible future applications are studied. Field trips are required.

ET 335  Integrated Circuits with Computer Applications  5 Units
Prerequisite: ET 302 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC, 108 hours LAB
This course covers integrated circuits (IC’s) and applications used in industrial and consumer products. Digital theory and applications start with standard transistor-transistor logic (TTL) and complementary metal oxide semiconductor (CMOS) logic circuits and progress into complex circuits built on programmable logic devices (PLDs) using very-large-scale-integration hardware description language (VHDL). Field trips are required.
ET 337  Advanced Integrated Circuit Applications  3 Units
Prerequisite: ET 330 or ET 335 with a grade of “C” or better.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a continuation of Integrated Circuit Applications, ET 335. It includes a comprehensive study of advanced circuits used in various industrial and consumer applications. Topics include advanced operational amplifier circuits; electrical-mechanical transducers; voice recognition and reproduction circuits; motor driver circuits; global positioning circuits (GPS); and computer and human interface circuits. Field trips are 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 for students to design and build advanced projects. It enables students to work on approved electronics projects outside the scope of typical classroom applications. Students learn the process of planning, design, prototyping, and fabrication while building an actual working project. Completed projects are entered in county and statewide technology 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. This course may be taken three times on different projects.

ET 380  Introduction to Electronic Communications  4 Units
Prerequisite: ET 301 or ET 302 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers 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 are required.

ET 386  Fiber Optic Splicing, Connectivity and Testing  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This is an introductory course in fiber optic theory and operation including the complete fiber optic communication system. It includes fiber optic terminology and instruction in the proper 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 Reflectrometer (OTDR). A field trip is required. This course may be taken twice for credit using different equipment.

ET 387  Advanced Fiber Optics  2 Units
Prerequisite: ET 386 with a grade of “C” or better.
Course Transferable to CSU
Hours: 36 hours LEC
This course covers advanced fiber optic theory and operation. Fiber optic systems are vital communication links that enable high speed transfer of video, telephone, and data to occur. Testing of fiber optic systems using sophisticated opto-electrical test equipment such as the Optical Time Domain Reflectrometer (OTDR) is included. This course also introduces the use of computer based software to simplify fiber optic system design. May be taken twice for credit.

ET 420  Microcontrollers and Digital Signal Processors  5 Units
Prerequisite: ET 302 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC; 108 hours LAB
This course is an in-depth study of microcontrollers and digital signal processors (DSP). The focus is on digital concepts such as data flow, internal architecture, programming, memory, data converters and the interfacing of input/output devices, sensors and motors. Field trips are required.

ET 421  Advanced Microprocessors, Microcontrollers, and Programmable Logic Devices  3 Units
Prerequisite: ET 420 with a grade of “C” or better.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a continuation of ET 420. It focuses on the advanced features of microprocessors, microcontrollers, and Programmable Logic Devices (PLD). Topics include microcontroller assembly language; optical, RF and serial communication techniques; output display design; and developing Reduced Instruction Set Controller (RISC) microprocessors from PLD’s. Field trips are required.

ET 490  Advanced Student Projects Laboratory  2 Units
Prerequisite: ET 322, 335, or 380 with a grade of “C” or better.
Course Transferable to CSU
Hours: 108 hours LAB
This course provides opportunities to pursue advanced projects selected by the Electronics department. It may be taken two times for credit on different projects.
ENGR 300 Introduction to Engineering 1 Unit
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320 AND ESLW 320.
Course Transferable 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 engineering and engineering technology options and curricula involved. The 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 305 Basic Technical Drawing 3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116; or ESLR 320 and ESLW 320, or placement through the assessment process.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 72 hours LAB
This course introduces the graphical tools and instruments used to generate, analyze and interpret engineering drawings. This class is required for engineering students. Topics include lettering, geometric construction, or orthographic projection, auxiliary drawings, sectioning, and dimensioning.

ENGR 307 Industrial Materials Testing 3 Units
Prerequisite: MATH 100 with a grade “C” or better.
Advisory: MATH 120.
Course Transferable to CSU
Hours: 54 hours LEC; 36 hours LAB
This course covers the basic properties of materials used in industry. The course emphasizes the practical use of the materials, but uses sufficient theory to understand these applications well. The course covers metals, concrete, plastics, ceramics, glasses, wood, and other composites. This course is primarily intended for design technology, engineering technicians and other technical students.

ENGR 310 Engineering Survey Measurements 4 Units
Prerequisite: MATH 330.
Advisory: ENGWR 102 or 103, and ENGRD 116; or ESLR 320 and ESLW 320.
Course Transferable 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 in this course to develop the principles of measurement for distance, elevations and angles.

ENGR 312 Engineering Graphics 3 Units
Prerequisite: ENGR 305 or DESGN 300 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 72 hours LAB
This course applies the graphical tools needed to analyze, interpret and solve engineering problems. The engineering design process is taught using manual and introductory interactive computer-aided design and drafting (CADD) as 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 engineers, but may also be required for other programs.

ENGR 320 Manufacturing Processes 3 Units
Prerequisite: ENGR 312 or DESGN 310; ENGRWR 103 or 300 or ESLW 340.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
Principles of manufacturing processes in the areas of material removal, addition, joining, and change of form or condition. Hands-on experience in welding, machinery operation, (e.g. lathe, milling machine drill press, etc.) and various casting techniques (sand casting, etc).

ENGR 401 Introduction to Electrical Circuits and Devices 3.5 Units
Prerequisite: PHYS 421 with a grade of “C” or better.
Corequisite: MATH 420.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 36 hours LAB
This course covers the basic fundamentals of electrical circuit theory and analysis for engineers. Topics include circuit analysis techniques, sinusoidal analysis, phasors, first- and second-order circuits with natural and step responses, operational amplifiers, and average power. This course is intended to provide a solid foundation for upper division engineering courses.

ENGR 413 Properties of Materials 4.5 Units
Prerequisite: PHYS 410 and CHEM 400 with a grade of “C” or better.
Advisory: ENGWR 300 or ESLW 340.
Course Transferable to UC/CSU
Hours: 72 hours LEC; 27 hours LAB
This is an introductory course in properties of materials used in engineering. This course places emphasis upon the theory underlying the behavior of engineering materials. The course includes a laboratory component, in which work will cover the testing of metals, polymers, composites, wood and other materials.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 420</td>
<td>Statics</td>
<td>3</td>
<td>MATH 401 and PHYS 410 with grades of &quot;C&quot; or better.</td>
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<td></td>
<td>ENGR 305 or DESGN 300, and MATH 410.</td>
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<td>Course Transferable to UC/CSU</td>
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<td>Hours: 54 hours LEC</td>
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<td>This course covers the study of bodies in equilibrium with emphasis on force</td>
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<td>systems, structures, distributed loads, friction and virtual work. In this</td>
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<td>course, analytical rather than graphical methods of problem solving will be</td>
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<td>emphasized. (CAN ENGR 8)</td>
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<tr>
<td>ENGR 428</td>
<td>Engineering Mechanics</td>
<td>3</td>
<td>Physics 410 with a grade of &quot;C&quot; or better.</td>
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<td>Course Transferable to UC/CSU</td>
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<td></td>
<td>Hours: 54 hours LEC</td>
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<td>This course covers the study of bodies in equilibrium with emphasis on</td>
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<td>structures and friction, including methods to calculate centroids and moments</td>
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<td>of inertia. It also includes the fundamental principles of kinematics and</td>
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<td></td>
<td>kinetics, and the study of motion and force analysis of particles and rigid</td>
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<td>bodies.</td>
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<tr>
<td>ENGR 430</td>
<td>Dynamics</td>
<td>3</td>
<td>ENGR 420 and MATH 402 with a grade of &quot;C&quot; or better.</td>
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<td></td>
<td>ENGR 420, ENGW 300 or ESLW 340.</td>
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<td>Course Transferable to UC/CSU</td>
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<td></td>
<td>Hours: 54 hours LEC</td>
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<td>This course covers the basic fundamentals of dynamics for engineers.</td>
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<td>Topics include kinematics and kinetics of particles, systems of particles</td>
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<td>and rigid bodies; systems with fixed and rotating axes; and the equations of</td>
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<td>motion, energy and momentum.</td>
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</tbody>
</table>
### English Degree

The English A.A. degree gives students a broad based background in writing, literature, and language analysis. It prepares students for the further study of English or a related field at a four-year school; it also supports a wide range of career options, emphasizing as it does the communication and analytic skills that provide a necessary foundation for many different endeavors.

NOTE: Students who plan to major in English at a four-year college or university would be well advised to check with an ARC counselor because four-year schools differ widely in the ways in which they construct their English majors.

#### Requirements for Degree  
**24 Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLT 320</td>
<td>American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 323</td>
<td>Service Learning: Tutoring Elementary Students in Reading</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 333</td>
<td>African-American Dramatic Literature (3)</td>
<td></td>
</tr>
<tr>
<td>ENGLT 300</td>
<td>Introduction to Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 304</td>
<td>Introduction to Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 311</td>
<td>English Literature</td>
<td>3</td>
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<tr>
<td>ENGLT 320</td>
<td>American Literature</td>
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<tr>
<td>ENGLT 321</td>
<td>American Literature</td>
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<tr>
<td>ENGLT 340</td>
<td>World Literature</td>
<td>3</td>
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<tr>
<td>ENGLT 341</td>
<td>Mythologies of the World</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 360</td>
<td>Women in Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 370</td>
<td>Children and Literature (3)</td>
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</tr>
<tr>
<td>ENGLT 372</td>
<td>Children and Literature: Storytelling (1)</td>
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</tr>
<tr>
<td>ENGLT 374</td>
<td>Children and Literature: Multicultural Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 376</td>
<td>Children and Literature: Reader’s Theatre (1)</td>
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<tr>
<td>ENGLT 378</td>
<td>Young People’s Literary Classics (3)</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 380</td>
<td>Introduction to Shakespeare (3)</td>
<td>3</td>
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<tr>
<td>ENGLT 382</td>
<td>Literary Themes in Dramatic Literature (3)</td>
<td></td>
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<tr>
<td>ENGLT 390</td>
<td>Mystery and Detective Fiction (3)</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 392</td>
<td>Science Fiction and Fantasy (3)</td>
<td>3</td>
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<tr>
<td>ENGLT 493</td>
<td>Short Literary Topics (1 - 2)</td>
<td>3</td>
</tr>
<tr>
<td>ENGLT 494</td>
<td>Topics in Literature</td>
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And a minimum of 6 units from the following: ........................................ 6

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENGCW 400</td>
<td>Creative Writing (3)</td>
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<td>ENGCW 410</td>
<td>Fiction Writing Workshop (3)</td>
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<tr>
<td>ENGCW 420</td>
<td>Poetry Writing Workshop (3)</td>
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<td>ENGCW 421</td>
<td>A Short Course in Poetry Writing (1)</td>
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<td>ENGCW 430</td>
<td>Creative Non-Fiction Writing Workshop (3)</td>
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<tr>
<td>ENGCW 440</td>
<td>Screenwriting Workshop (3)</td>
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<td>ENGCW 441</td>
<td>Advanced Screenwriting Workshop (3)</td>
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<td>ENGCW 450</td>
<td>College Literary Magazine (3)</td>
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<td>ENGLT 305</td>
<td>Structure of English (3)</td>
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<td>ENGLT 320</td>
<td>Service Learning: Tutoring Elementary Students in Reading</td>
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<td>Peer Tutoring in English and Reading (1.5 - 3)</td>
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<tr>
<td>ENGLT 300</td>
<td>Introduction to Fiction (3)</td>
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<td>ENGLT 304</td>
<td>Introduction to Poetry (3)</td>
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<tr>
<td>ENGLT 327</td>
<td>Literature of California (3)</td>
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<tr>
<td>ENGLT 333</td>
<td>African-American Dramatic Literature (3)</td>
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<tr>
<td>ENGLT 334</td>
<td>Asian-American Literature (3)</td>
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<tr>
<td>ENGLT 338</td>
<td>Native American Literature (3)</td>
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<tr>
<td>ENGLT 340</td>
<td>World Literature</td>
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<tr>
<td>ENGLT 341</td>
<td>Mythologies of the World</td>
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<tr>
<td>ENGLT 360</td>
<td>Women in Literature</td>
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<td>ENGLT 370</td>
<td>Children and Literature (3)</td>
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<tr>
<td>ENGLT 372</td>
<td>Children and Literature: Storytelling (1)</td>
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<td>ENGLT 374</td>
<td>Children and Literature: Multicultural Literature</td>
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<td>ENGLT 376</td>
<td>Children and Literature: Reader’s Theatre (1)</td>
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<td>ENGLT 378</td>
<td>Young People’s Literary Classics (3)</td>
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<td>ENGLT 380</td>
<td>Introduction to Shakespeare (3)</td>
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<td>ENGLT 382</td>
<td>Literary Themes in Dramatic Literature (3)</td>
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<td>ENGLT 390</td>
<td>Mystery and Detective Fiction (3)</td>
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<td>ENGLT 392</td>
<td>Science Fiction and Fantasy (3)</td>
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<tr>
<td>ENGLT 493</td>
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<td>ENGLT 494</td>
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</tbody>
</table>

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

#### Technical Communication Degree

#### Requirements for Degree  
**42.5 Units**

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals (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>ARTNM 303</td>
<td>Graphic Design: Typography</td>
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<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
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<td>CISA 306</td>
<td>Intermediate Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CIS 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 342</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 344</td>
<td>Technical/Professional Communication: Writing Reports</td>
<td>1.5</td>
</tr>
<tr>
<td>ENGR 348</td>
<td>Technical/Professional Communication: Plain English</td>
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<tr>
<td>ENGR 350</td>
<td>Technical/Professional Communication: Proposal Writing</td>
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<tr>
<td>ENGR 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
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</table>

And 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>ARTM 310</td>
<td>Design: Fundamentals (3)</td>
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<td>ARTM 310</td>
<td>Design: Fundamentals (3)</td>
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<tr>
<td>ENGR 310</td>
<td>Prose Analysis and Interpretation (3)</td>
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<td>ENGR 312</td>
<td>Academic Textbook Reading (3)</td>
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<tr>
<td>ENGR 330</td>
<td>Writing for Publication (3)</td>
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<tr>
<td>ENGR 331</td>
<td>Writing for Publication (3)</td>
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And a minimum of 6 units from the following: ........................................ 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ENGCW 450</td>
<td>College Literary Magazine (3)</td>
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<tr>
<td>ENGR 330</td>
<td>Writing for Publication (3)</td>
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<tr>
<td>ENGR 331</td>
<td>Writing for Publication (3)</td>
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<tr>
<td>ENGR 354</td>
<td>Introduction to Careers in Technical Communication (1)</td>
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<tr>
<td>ENGR 356</td>
<td>Writing Formal Reports (1)</td>
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<tr>
<td>ENGR 358</td>
<td>Writing Training Materials (1)</td>
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<td>JOUR 300</td>
<td>Newspaper Writing and Reporting (3)</td>
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<td>JOUR 401</td>
<td>College Newspaper Production (2)</td>
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<tr>
<td>SPEECH 321</td>
<td>Interpersonal Communication (3)</td>
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<td>SPEECH 331</td>
<td>Group Discussion (3)</td>
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And a minimum of 12 units from the following: .................................... 12

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<th>Course Code</th>
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<tr>
<td>ARTM 324</td>
<td>Digital Design (3)</td>
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<tr>
<td>ARTM 328</td>
<td>Digital Photo Imagery - Photoshop Basics (3)</td>
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<tr>
<td>ARTM 330</td>
<td>Intermediate Digital Photo Imagery (3)</td>
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<tr>
<td>ARTM 352</td>
<td>Design for Publication (3)</td>
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<tr>
<td>CISA 330</td>
<td>Desktop Publishing (2)</td>
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<tr>
<td>CISA 331</td>
<td>Intermediate Desktop Publishing (2)</td>
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<tr>
<td>ARTM 354</td>
<td>Digital Prepress (3)</td>
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<tr>
<td>ARTM 402</td>
<td>Intermediate Web Design (3)</td>
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<tr>
<td>ARTM 404</td>
<td>Interactive Multimedia Basics (3)</td>
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<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
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<tr>
<td>CISA 340</td>
<td>Presentation Graphics (2)</td>
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<tr>
<td>CISW 310</td>
<td>Advanced Web Publishing (4)</td>
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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 Communication Certificate**

<table>
<thead>
<tr>
<th>Requirement for Certificate</th>
<th>20.5-21.5 Units</th>
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<tbody>
<tr>
<td>ARTNM 352 Design for Publication (3)</td>
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<tr>
<td>or CISA 330 Desktop Publishing (2)</td>
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<tr>
<td>and CISA 331 Intermediate Desktop Publishing (2)</td>
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</tr>
<tr>
<td>CISA 305 Beginning Word Processing</td>
<td>2</td>
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<tr>
<td>CISA 306 Intermediate Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>ENGWR 342 Technical/Professional Communication: Writing Reports</td>
<td>1.5</td>
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<tr>
<td>or ENGWR 348 Technical/Professional Communication: Plain English</td>
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<tr>
<td>or ENGWR 350 Technical/Professional Communication: Proposal Writing</td>
<td></td>
</tr>
<tr>
<td>ENGWR 352 Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
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<td>And a minimum of 6 units from the following:</td>
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<tr>
<td>ARTNM 324 Digital Design (3)</td>
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<tr>
<td>ARTNM 328 Digital Photo Imagery - PhotoShop Basics (3)</td>
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<tr>
<td>ARTNM 330 Intermediate Digital Photo Imagery (3)</td>
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<tr>
<td>ARTNM 402 Intermediate Web Design (3)</td>
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<tr>
<td>ARTNM 404 Interactive Multimedia Basics (3)</td>
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<tr>
<td>CISA 340 Presentation Graphics (2)</td>
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<tr>
<td>CJSW 300 Web Publishing (3)</td>
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<tr>
<td>CJSW 310 Advanced Web Publishing (4)</td>
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</table>

**English - Creative Writing**

**ENGCW 400 Creative Writing**  
Prerequisite: ENGWR 300 with a grade of “C” or better  
General Education: AA/AS Area II(b)  
Course Transferable to UC/CSU  
Hours: 54 hours LEC

This is a course in creative writing through experience in four genres: short story, poetry, autobiogarphy, and script writing. The course includes analysis of literary models, individual and class criticism of work, and discussion of literary techniques in each genre, such as dialogue, imagery, and narrative. A related objective is to develop critical thinking skills: identifying and defining problems and issues; collecting, analyzing, synthesizing, and evaluating information; and developing conclusions, with special consideration given to the distinctive requirements of each genre.

**ENGCW 410 Fiction Writing Workshop**  
Advisory: ENGCCW 400 with a grade of “C” or better.  
Course Transferable to CU/CSU  
Hours: 54 hours LEC

This course concentrates on fiction writing. Short stories and/or novel chapters written during the semester will be analyzed in constructive, in-class workshops. The elements of literary creation will be critically examined from a writer's perspective through lecture, discussion, assigned readings, and in-class writing exercises. The class includes journaling, the preparation of a portfolio of work completed during the class, and individual conferences.

**ENGCW 420 Poetry Writing Workshop**  
Advisory: ENGCCW 400 with a grade of “C” or better.  
Course Transferable to CU/CSU  
Hours: 54 hours LEC

This is a creative writing course that concentrates on poetry writing. The workshop format will focus on analysis of poetry written in the class. Through lecture, discussion, assigned reading, collaborative writing projects, and in-class writing exercises, the course will examine literary devices in period and contemporary poetry and will demonstrate revising and editing processes. The course requires a portfolio of original work and individual conferences with the instructor.
**ENGED 320** Service Learning: Tutoring Elementary Students in Reading 3 Units
Prerequisite: ENGRD 116 with a grade of “C” or better, or placement through the assessment process.
Course Transferable to CSU
Enrollment Limitation: TB and Fingerprint Clearance
Hours: 37 hours LEC, 40 hours LAB
This course offers an opportunity to learn and practice basic methods of tutoring elementary school children to read. The class will meet on campus for the first part of the semester to be trained, and then will be assigned to a nearby elementary school where they will have in-depth practice tutoring elementary children who are reading below grade level. This course is one of the two required field experience courses for the CSUS Blended Teacher Preparation Program. This course may be offered in conjunction with a non-profit organization such as SMART Kids.

**ENGED 322** Peer Tutoring in English and Reading 1.5-3 Units
Prerequisite: A grade of “C” or better in the course in which the student is tutoring.
Advisory: ENGWR 300, ENGRD 310, and basic familiarity with computers.
Course Transferable to CSU
Hours: 18 hours LEC, 108 hours LAB
This course provides instruction and practical experience for student tutors in English and Reading. The lecture-discussion portion of the course focuses on tutoring techniques and strategies, which will then be applied to tutoring assignments. Lectures will also include a review of key grammatical concepts and reading comprehension as they relate to tutoring. Completion of this course is required for working as a paid tutor in the Reading and Writing Centers. This course is also recommended for any student considering a career in education. May be taken twice for credit.

**ENGED 324** Introduction to Elementary Teaching with Field Experience 3 Units
Same As: ECE 350
Advisory: ECE 312 or PSYC 372
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course is a career exploration course with an early field experience for K-8 teaching. It includes a supervised field placement of four hours weekly in a local elementary school in addition to weekly class meetings on campus. It will fulfill one of the early field experiences for the CSUS blended liberal studies major. Course content includes the profession and culture of teaching, observation skills, communication skills, diversity, and social issues. Field experience will integrate and apply the course content. Not open to students who have completed ECE 350.

**ENGED 340** Technology in the English Classroom: Presentational Software .5 Units
Prerequisite: ENGRD 116 with a grade of “C” or better, or placement through the assessment process.
Course Transferable to UC/CSU
Enrollment Limitation: TB and Fingerprint Clearance
Course Transferable to CSU
Hours: 6 hours LEC, 9 hours LAB
The course offers reading and writing instructors the opportunity to experience software, hardware, and Internet tools and to explore the effective integration of these technologies and their related pedagogies into the teaching of English. The course will require specific hands-on activities and development materials using technologies featured within the course. The course work will integrate such presentational technologies as PowerPoint, and web-based presentation tools. Technologies offered within the class will vary as the field of computers and English evolves. This course may be repeated once with a different software package or version.

**ENGED 341** Technology in the English Classroom: Collaborative Software .5 Units
Prerequisite: ENGRD 116 with a grade of “C” or better, or placement through the assessment process.
Course Transferable to CSU
Enrollment Limitation: TB and Fingerprint Clearance
Course Transferable to CSU
Hours: 6 hours LEC, 9 hours LAB
The course offers reading and writing instructors the opportunity to experience software, hardware, and Internet tools and to explore the effective integration of these technologies and their related pedagogies into the teaching of English. The course will require specific hands-on activities and development of materials using technologies featured within the course. The course will integrate such presentational technologies as Daedalus, and CommonSpace. Technologies offered within the class will vary as the field of computers and English evolves. This course may be repeated once with a different software package or version.

**ENGED 342** Technology in the English Classroom: Internet Tools .5 Units
Prerequisite: ENGRD 116 with a grade of “C” or better, or placement through the assessment process.
Course Transferable to CSU
Enrollment Limitation: TB and Fingerprint Clearance
Course Transferable to CSU
Hours: 6 hours LEC, 9 hours LAB
The course offers reading and writing instructors the opportunity to experience software, hardware, and Internet tools and to explore the effective integration of these technologies and their related pedagogies into the teaching of English. The course will require specific hands-on activities and development of materials using technologies featured within the course. The course will integrate such Internet-based technologies as e-mail and web-based instructional tools. Technologies offered within the class will vary as the field of computers and English evolves. This course may be repeated once with a different Internet emphasis.

**ENGED 350** Technology in the English Classroom: Creation of Web Documents .5 Units
Prerequisite: ENGRD 116 with a grade of “C” or better, or placement through the assessment process.
Course Transferable to CSU
Enrollment Limitation: TB and Fingerprint Clearance
Course Transferable to CSU
Hours: 6 hours LEC, 9 hours LAB
The course offers reading and writing instructors the opportunity to experience software, hardware, and Internet tools and to explore the effective integration of these technologies and their related pedagogies into the teaching of English. The course will require specific hands-on activities and development of materials using technologies featured within the course. The course will integrate such Internet-based technologies as Netscape and BBEdit, and other web-based editing tools. Technologies offered within the class will vary as the field of computers and English evolves. This course may be repeated once with a different project emphasis.
ENGLT 320 American Literature 3 Units
Prerequisite: ENGWR 300 with a grade of "C" or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course surveys American literature from the precolonial period to the Civil War. Approximately one-third of the semester’s reading, discussion, and exploration is devoted to the development and backgrounds of a truly national literature. The larger two-thirds of the semester’s study focuses upon the early half of the nineteenth century prior to the Civil War with special emphasis upon eight major writers: Poe, Hawthorne, Emerson, Thoreau, Douglass, Melville, Whitman, and Dickinson. The course also examines aesthetic theories, growth of literary methods, and changes in literary tastes and opinions within the intellectual currents of the times.

ENGLT 321 American Literature 3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course surveys representative literature from the post-Civil War period until the present. It begins with the end of the Romantic period and follows the rise of Realism. Prose includes local color and social criticism, fiction of the “Lost Generation,” and contemporary stories. Poetry includes the many movements from turn-of-the-century to contemporary.

ENGLT 322 American Literature 3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the study of fiction as a type of literature. The course will examine a wide range of fiction, critically analyzing plot, setting, character, theme, and style. The course will include British and American works, as well as fiction in translation.

ENGLT 323 American Literature 3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course surveys autobiographies and fiction written by Asian Americans; the work focuses on the experience of Asian Americans growing up in a culture that is dominated by Eurocentric influences. The selected readings were written in American English in the last 60 years by Filipino-, Chinese-, Japanese-, and Korean-Americans. The course compares and contrasts the perspectives with which these four groups of Asian-American writers shape their portrayals of their immigration, discrimination, and assimilation experiences; further, the course examines the diversities of these experiences both within and across the generations.
ENGLT 338   Native American Literature  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better.
General Education: AA/AS Area I and VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines the living Native American experience as expressed through Native works of autobiography, fiction, poetry, film, and historical texts. Emphasis is placed on indigenous world views and perspectives. Highlighted are comparisons between the evolving culture of European Americans and that of Native Americans. The course examines how Native literature is a reflection of the historical and cultural movements that have shaped, been shaped by, and interacted with the Native community. Included are samples of Native literary voices from tribes from all areas of the Americas, North, South, and Central. Field trips are required.

ENGLT 340   World Literature  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of world literature by authors of the ancient world to the early seventeenth century. Emphasis is on Western literature; in addition to Greek and Latin masterpieces, the early national literature of Italy, France, and Spain are studied. The entire range of genres is represented and, whenever possible, works are studied in their entirety.

ENGLT 341   World Literature  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of the literature of the world from the eighteenth century to the present, with emphasis on European literature. It is designed to establish an understanding of the philosophies of the various cultural periods, as well as the tempers of the classicism, romanticism, and realism in literature and the related arts.

ENGLT 345   Mythologies of the World  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an introduction to the multi-cultural characters and themes in dominant myths in world literature: creation stories; gods and goddesses; sagas of heroes; journeys to death and rebirth. Theories of the meanings of myths will be discussed. Students will also learn, through selected examples, how characters and stories in myths remain alive in modern literature and culture.

ENGLT 360   Women in Literature  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
The roles women have played both as creators and as protagonists in the art of fiction will be examined in this course. This course includes reading and evaluating literature from a wide range of times, places, and ethnic groups, by both men and women, although emphasis will be on works written by women.

ENGLT 370   Children and Literature  3 Units
Advisory: ENGWR 102 or 103; or placement through the assessment process.
General Education: AA/AS Area I; CSU Area C
Course Transferable to CSU
Hours: 54 hours LEC
This course is a survey of the best 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 of current issues such as censorship, literacy, and multicultural diversity. The course is intended for prospective teachers, preschool teachers, early childhood education (ECE) majors, parents, and anyone who is or will be in frequent contact with children. It includes reading to children in a formal group setting, which may include an off-campus location.

ENGLT 372   Children and Literature: Storytelling  1 Unit
Advisory: ENGLT 370, ENGWR 102, or ENGWR 103; or placement through the assessment process.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C
Course Transferable to CSU
Hours: 18 hours LEC
This course offers further studies in children’s literature, emphasizing the principal types and sources of oral literature for children. Students will study the theories of ways in which storytelling develops cognitive and language skills, social growth, self-esteem, and aesthetic appreciation in children. Studies will include multiculturaly diverse story sources of oral literature such as folktales, legends, dramatic poetry, and family and community histories. Practice in storytelling is included. May be repeated twice for credit.

ENGLT 374   Children and Literature: Multicultural Literature  1 Unit
Advisory: ENGLT 370, ENGWR 102, or ENGWR 103; or placement through the assessment process.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C
Course Transferable to CSU
Hours: 18 hours LEC
This course surveys fiction and non-fiction written for children about racial and ethnic minority groups in the United States. Readings will include literature written by and about Native Americans, African Americans, Hispanic Americans, and Asian Americans. Books written in non-English languages will also be reviewed. Study will emphasize literary analysis and the values of multicultural literature in the development of children’s cultural and aesthetic sensitivity. May be repeated twice for credit.

ENGLT 376   Children and Literature: Reader’s Theatre  1 Unit
Advisory: ENGLT 370, ENGWR 102, or ENGWR 103; or placement through the assessment process.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C
Course Transferable to CSU
Hours: 18 hours LEC
This course offers further studies in children’s literature with emphasis on selecting and adapting children’s literature to group writing and reading aloud dramatically in group situations. Criteria for selection and adaptation will be applied to folk literature, plays, short novels, and storybooks. The emphasis will be on using reader’s theater preparation to develop the child’s understanding and appreciation of literary aesthetics, language skills, and cultural diversity. May be repeated twice for credit.

ENGLT 378   Young People’s Literary Classics  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a study of works which have earned merit as classics written for both young adult and general audiences. Representative writers may include Shakespeare, Dickens, London, Stevenson, Twain, Tolkein, C.S. Lewis, and contemporary, multiculturally diverse writers such as J. D. Salinger, Jamake Highwater, Alice Walker,
Maya Angelou, and Amy Tan. It includes a discussion of literary form and style, with emphasis on the contributions of such works to the development of literary and aesthetic appreciation in young readers.

ENGLT 380 Introduction to Shakespeare 3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of eight to ten representative dramatic works of Shakespeare and related literary criticism. It includes an examination of the Elizabethan worldview as a context for the plays. Attendance at live Shakespearean performances may be required.

ENGLT 382 Literary Themes in Dramatic Literature 3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
Advisory: ENGWR 301
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
The study of drama of a variety of periods and cultures as they reflect recurring themes in literature. Attendance at live theater productions will be required.

ENGLT 390 Mystery and Detective Fiction 3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the study of mystery and detective fiction from beginning to the present. Representative authors are Dickens, Poe, Conan Doyle, Chesterton, Sayers, Hammet, Hillerman, Eco, Graft, Forrest, James, Paretsey, Jance.

ENGLT 392 Science Fiction and Fantasy 3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the realm of science fiction and fantasy. It begins with an examination of the roots of these literatures and then journeys through the rich and diverse territory that contemporary works offer. The offerings may include selections from television, film, anime, short stories, and novels.

ENGLT 403 Film Adaptations 3 Units
Prerequisite: ENGWR 300 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 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. The course analyzes intention, creative distinctions, and the limits and strengths of each medium.

ENGLT 493 Short Literary Topics 1-2 Units
Prerequisite: ENGWR 300 with a grade of “C” or better.
Course Transferable to CSU
Hours: 36 hours LEC
This course will provide a brief study of an area of literature or an overview of a literary subject. Specifically, courses might be offered in a particular subgenre (for example, the sonnet or the fairy tale), author, short literary period (for example, the Harlem Renaissance), or theme (for example, the Monster in Literature). Individual course descriptions are provided in the class schedule. The course may be taken four times for a maximum of six units.

ENGLT 494 Topics in Literature 3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to CSU
Hours: 54 hours LEC
This is a literature course to be scheduled as needed under a title describing specific content. It provides the opportunity to focus on an in-depth study of specific literary subjects or genres. The course will offer an extensive study of works by significant writers of literature defined by theme, region, vocation, or human experiences. Possible titles include Retelling Stories, The Love Story, The Far West, The Military Experience in Literature, The Hero in Contemporary Fiction, Humor in American Fiction. May be taken twice for credit.

ENGRD 12 Reading Center: Basic Reading Skills 15-2 Units
Prerequisite: Placement through assessment process or completion of ESLR 50 with a grade of “C” or better.
Hours: 108 hours LAB
The Reading Center offers individualized instructional modules designed to acquire or improve reading skills in specific areas. Course offerings vary, depending upon needs and abilities. A partial list includes the following: Comprehension (beginning-intermediate levels), Vocabulary Development (beginning-intermediate levels), Critical Reading, Study Skills, Spelling Improvement, and ESL Reading/Conversation (non-degree applicable modules). Credit/No Credit. The same module may not be repeated for credit and is not a substitute for any Reading or ESL course. Enrollment is open through the 12th week of the semester. Units are awarded upon the successful completion of modules. May be taken four times for credit with a maximum of six units.

ENGRD 15 Basic Reading Skills 3 Units
Prerequisite: ENGWR 12; or placement through the assessment process. Advisory: Concurrent or previous enrollment in ENGWR 51.
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 the Learning Resource Center may be required by instructor.

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 56 Integrated Reading, Writing and Study Skills 6 Units
Same As: ENGWR 56
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. The course includes reading and writing in response to a variety of fictional and non-fictional materials and reviews basic rules of grammar and usage to develop skills in sentence, paragraph, and essay writing. Additional topics include a review of campus services and programs and effective study strategies. This course requires a
reading courses
with corresponding writing courses

Counselor
Student's placement in a specific
level class is determined through
consultation with a counselor or by
meeting course pre-requisite

Readiness
for college-level reading

ENGRD 15
(formerly English 270)
Basic Reading Skills
3 units
lecture/discussion

Corresponding
writing level:
ENGWR51

ENGRD 12
(formerly English 268)
Reading Center:
Basic Reading Skills
5-2 units
Individualized reading modules
Open entry/exit

Corresponding
Writing Center:
ENGWR53

College Level
(AA/AS degree-applicable)

ENGRD 116
(formerly English 78)
Proficient Reading
3 units
lecture/discussion

Corresponding
writing level:
ENGWR102/ENGWR103

ENGRD 117
(formerly English 68)
Reading Center:
Reading Skills
5-2 units
Individualized reading modules
Open entry/exit

Corresponding
Writing Center:
ENGWR104

Transfer Level
(satisfies reading competency for AA/AS
degree & transfer to CSU)

ENGRD 310
(formerly English 6)
College Analytical & Speed Reading
3 units
lecture/discussion

Corresponding
writing level:
ENGWR300

ENGRD 312
(formerly English 5)
Academic Textbook Reading
3 units
lecture/discussion

Corresponding
writing level:
ENGWR300

ENGRD 314
(formerly English 6)
Reading Across the Disciplines (RAD)
.5-1 unit, Credit/No Credit
Drop-in program for assistance with
reading assignments in academic
classes across the disciplines.
Open entry/exit

Corresponding writing program:
Writing Across the Curriculum (WAC)

Referral
Instructors may refer a student, or
student may self-refer.
**Composition Courses**

with corresponding reading courses

**Counselor**
Student's placement in a specific level class is determined through consultation with a counselor or by meeting course pre-requisites.

**Readiness for College-level Writing**

- **ENGWR 51** (Formerly English 256)
  - Developmental Writing
  - 4 units
  - lecture/discussion
  - Corresponding reading level: ENGRD15

**College Level** (AA/AS degree-applicable)

- **ENGWR 103** (Formerly English 40)
  - Practical Communication*
  - 3 units
  - lecture/discussion
  - Corresponding reading level: ENGRD116

- **ENGWR 102** (Formerly English 58)
  - Proficient Writing**
  - 3 units
  - lecture/discussion or individualized
  - Corresponding reading level: ENGRD116

**Transfer Level** (Transfers to CSU & UC)

- **ENGWR 300** (Formerly English 1A)
  - College Composition*
  - 3 units
  - lecture/discussion or individualized
  - Corresponding reading levels: ENGRD310/ENGRD312

- **ENGWR 301** (Formerly English 1B)
  - College Composition & Literature

- **ENGWR 302** (Formerly English 1C)
  - Advanced Composition & Critical Thinking

**ENGWR 53** (Formerly English 254)
- Writing Center: Basic Writing Skills
- .5-2 units
- Individualized writing modules.
- Open entry/exit
- Corresponding Reading Center: ENGRD12

**ENGWR 104** (Formerly English 54)
- Writing Center: Writing Skills
- .5-2 units
- Individualized writing modules.
- Open entry/exit
- Corresponding Reading Center: ENGRD117

**ENGWR 300** (Formerly English 1A)
- College Composition*
- 3 units
- lecture/discussion or individualized
- Corresponding reading levels: ENGRD310/ENGRD312

**ENGWR 301** (Formerly English 1B)
- College Composition & Literature

**ENGWR 302** (Formerly English 1C)
- Advanced Composition & Critical Thinking

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* Fulfills writing competency requirement for AA/AS degree.
** Pre-requisite for ENGRD300
The Curriculum or Reading Across the Disciplines programs may be reading practice and exercises in the Reading Center, Writing Across the Curriculum Program, or the Reading Center may be required. This course is not open to students who have completed ENGWR 56.

**ENGRD 114 College Vocabulary and Spelling** 2 Units
Hours: 36 hours LEC
This course provides college vocabulary and spelling skills. Topics include Greek and Latin word parts, phonetic analysis, thematic readings, proofreading, determining meaning of technical terms in academic disciplines, and effective use of learning style strategies. Topics in this course promote college success.

**ENGRD 116 Proficient Reading** 3 Units
Prerequisite: ENGRD 15 with a grade of "C" or better; or placement through the assessment process.
Advisory: Concurrent enrollment in ENGW 102 or 103.
Hours: 54 hours LEC
This course analyzes expository and argumentative essays, textbooks, and literature in preparation for ENGRD 310 or ENGRD 312. 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 introduction, body, and conclusion. 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: Reading Skills** .5-2 Units
Prerequisite: Placement through assessment process.
Advisory: ENGRD 12.
Hours: 108 hours LAB
The Reading Center offers individualized instructional modules designed to strengthen reading skills in specific areas. Course offerings vary, depending upon needs and abilities. A partial list includes the following: Comprehension (advanced levels), Vocabulary Development (advanced levels), Speed Reading, Critical Reading, Textbook Reading, Reading for the Proficiency Exam, Study Skills, Tutor Training. Credit/No Credit only. The same module may not be repeated for credit and is not a substitute for any Reading or ESL course. Scheduling is flexible. Enrollment is open through the twelfth week of the semester. Units are awarded upon the successful completion of modules. May be taken four times for a maximum of six units.

**ENGRD 310 Prose Analysis and Interpretation** 3 Units
Prerequisite: ENGRD 116 with a grade of "C" or better; or placement through the assessment process.
Advisory: Concurrent enrollment in ENGW 300.
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 54 hours LEC
This overview 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 research, (4) vocabulary development, and (5) application in multicultural essays, journals, fiction and nonfiction reading. Individual reading practice and exercises in the Reading Center, Writing Across the Curriculum or Reading Across the Disciplines programs may be required.

**ENGRD 312 Academic Textbook Reading** 3 Units
Prerequisite: ENGRD 116 with a grade of "C" or better; or placement through the assessment process.
Advisory: Concurrent enrollment in ENGW 300
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course will concentrate on the refinement of the ability to read, understand and respond to college-level textbooks across the curriculum. Emphasis is on critical thinking, graphs, discipline-based vocabulary, and reading rates as they relate to academic success.

**ENGRD 314 Reading Across the Disciplines (RAD)** .5-1 Units
Corequisite: Enrollment in a transfer level content area course.
Course Transferable to CSU
Hours: 54 hours LAB
This course offers individualized instructional modules designed to improve reading skills in the various content area classes. Course offerings vary, depending upon the needs and abilities of the student. A partial list may include the following: textbook comprehension, principles of learning and retention, notetaking, annotating, discipline-based vocabulary, paraphrasing, reading graphics, test taking, speed reading and research techniques. Credit/No Credit. Registration is open through the twelfth week of the semester. May be taken four times for a maximum of two units.

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**ENGRD 43 Spelling** 2 Units
Hours: 36 hours LEC
This course emphasizes the improvement of spelling through study of basic rules of spelling and application of those rules. Readings, writing and individualized spelling lists will be required throughout the course to supplement and reinforce spelling rules.

**ENGRD 51 Developmental Writing** 4 Units
Prerequisite: One or more units of ENGRD 53 with "credit" grade, or placement through assessment.
Advisory: Concurrent enrollment in ENGRD 53.
Hours: 72 hours LEC
This course focuses on basic writing skills, emphasizing the connection between writing and reading. This course includes reading, studying and responding orally and in writing to short, nonfiction multicultural selections at an appropriate level. The course emphasizes the writing process and development of specific skills within the sentence, paragraph and essay forms in preparation for ENGRD 116 or 103. The course also emphasizes the reading process and development of comprehension skills. One or more hours may be required in the Learning Resource Center. This course may be taken twice for credit.

**ENGRD 52 Writing Strategies for Success in Certificate Programs, Level 1** 1.5 Units
Prerequisite: Placement through the assessment process.
Hours: 27 hours LEC
This course is designed to sharpen the writing skills of students enrolled in campus certificate programs. Topics will include techniques for creating and understanding memos and directions, job-related forms and other work related writing. In addition, listening skills, group interaction techniques, and problem-solving skills will be introduced. Additional hours may be required in the Learning Resource Center.
ENGWR 53 Writing Center: Basic Writing Skills  .5-2 Units
Prerequisite: Placement through the assessment process or ESLR 50 and ESLW 50 with a grade of "C" or better.
Advisory: BUSTEC 300 or CISC 300.
Hours: 108 hours LAB
This course offers individualized instruction modules (mini English courses) that focus on improving basic writing skills, including familiarity with the writing process, sentence writing, and paragraph writing, as well as editing and proofreading. Course offerings vary depending on a student's needs and skill levels. Computers will be used to produce writing assignments. The same module may not be repeated for credit. This course is not a substitute for any other English course. Registration is open through the twelfth week of the semester. Credit/No Credit only. May be taken three times.

ENGWR 56 Integrated Reading, Writing and Study Skills  6 Units
Same As: ENGRD 56
Hours: 108 hours LEC
This course emphasizes the interrelationships among reading, writing, and study skills at the basic skill level. Course content, activities, and assignments integrate all three areas, providing opportunities to improve reading and writing skills in a student-centered environment. The course includes reading and writing in response to a variety of fictional and non-fictional materials and reviews basic rules of grammar and usage to develop skills in sentence, paragraph, and essay writing. Additional topics include a review of campus services and programs and effective study strategies. This course requires a total of 3,500 words written throughout the semester in a variety of assignments. Individual work in the Learning Resource Center may be required. Completing this course is equivalent to completing both ENGWR 51 and ENGRD 15. This course is not open to students who have completed ENGRD 56.

ENGWR 102 Proficient Writing  3 Units
Prerequisite: ENGWR 51 with a grade of "C" or better, or placement through assessment process.
Advisory: Concurrent enrollment in ENGRD 116.
Hours: 54 hours LEC
This course emphasizes topic selection, prewriting, organization of ideas, and development of introductory, body, and concluding paragraphs for expository and argumentative essays in preparation for ENGWR 300. It also includes the review and further development of sentence writing and editing skills and analysis of selected readings. One or more additional hours in the Learning Resource Center or Writing Across the Curriculum or Reading Across the Disciplines programs may be required. The course includes a departmental proficiency exam.

ENGWR 103 Practical Communication  3 Units
Prerequisite: ENGWR 51 with a grade of "C" or better; or placement through the assessment process.
Advisory: ENGRD 15; Concurrent enrollment in ENGRD 015.
General Education: AAAS Area II(a)
Hours: 54 hours LEC
This course will present methods of organizing ideas and writing for college and career: reports, resumes, and business correspondence. It will include research techniques and intensive review of grammar, spelling, and mechanics. The course is designed for students who do not plan to transfer. One or more additional hours per week in the Learning Resource Center may be required.

ENGWR 104 Writing Center: Writing Skills  .5-2 Units
Prerequisite: Completion of at least 1 unit of ENGWR 53 or placement through assessment process.
Advisory: BUSTEC 300 or CISC 300.
Hours: 108 hours LAB
This course offers individualized instruction modules (mini English courses) that focus on improving writing skills, including intermediate to advanced sentence, paragraph, and essay writing, research paper writing, literary analysis, as well as editing and proofreading. Course offerings vary depending on a student's needs and skill levels. Computers will be used to produce writing assignments. The same module may not be repeated for credit. This course is not a substitute for any other English courses. Registration is open through the twelfth week of the semester. Credit/No Credit only. May be taken three times.

ENGWR 105 College Timed Writing Workshop  1 Unit
Prerequisite: ENGWR 102 with a letter grade of A, B, C, D or INC.
Hours: 18 hours LEC
This course provides a structured approach to improving timed essay writing skills. It includes reviewing and practicing essay writing principles particularly in limited-time situations such as final essay exams: understanding writing assignments, structuring and developing paragraphs and essays, and editing and correcting errors in grammar and mechanics. This course does not replace ENGWR 102. This course may be taken twice. Credit/No Credit only.

ENGWR 142 Writing in the Workplace: Essentials of Practical Communication  1 Unit
Hours: 18 hours LEC
This course is designed to sharpen the skills of workplace writers. It helps them identify their audience and then establish a purpose and strategy for successful written communication. The course also reviews sentence patterns and punctuation as well as principles of usage, especially as they are applied in the workplace. Teamwork and peer editing are practiced. Students keep a portfolio of their memos, letters, and other writing assignments.

ENGWR 294 Topics in English Writing  1 Unit
Hours: 18 hours LEC
This course introduces a number of strategies for successful reading and writing. Although the course focuses on applying these strategies within the context of an English course, the course is intended to provide skills that apply to any course of study.

ENGWR 300 College Composition  3 Units
Prerequisite: ENGWR 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, reading, and critical thinking skills essential for successful completion of a four-year college program. Writing assignments include expository and argumentative papers (6,500 words minimum for course). A research paper written in the MLA format is required. Works read and analyzed will include essays exhibiting a variety of structures and styles. One or more additional hours per week may be required in the Learning Resource Center or the Writing Across the Curriculum or Reading Across the Disciplines programs.
ENGWR 301  College Composition and Literature  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area II(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 54 hours LEC
1) This course offers further study and practice in analytical reading and writing. 2) It covers principles of logic such as reasoning inductively and deductively, recognizing logical fallacies, and suspending judgments. 3) Assigned readings include novels, short stories, poems, plays, biographies, and literary criticism. Essays written for the course (6,500 words minimum) generalize from the texts to present carefully reasoned arguments. At least one essay will include citations from secondary sources, documented according to current MLA format. Attendance at a live theatre production may be required. One or more additional hours per week in the Learning Resource Center or Writing Across the Curriculum or Reading Across the Disciplines programs may be required.

ENGWR 302  Advanced Composition and Critical Thinking  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
Advisory: ENGRD 310
General Education: AA/AS Area II(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course further develops analytical skills through writing and discussion. It examines methods by which people are persuaded to think, believe, and/or act. It also includes analyses of arguments or expressions of opinions for their validity and soundness. Finally, it focuses on critically assessing, developing, and effectively expressing opinions on issues, including cultural diversity. It emphasizes thinking clearly and organizing thought carefully by using principles of logic. The course includes writing a minimum of 6500 words.

ENGWR 330  Writing for Publication  3 Units
Advisory: ENGWR 300
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 54 hours LEC
This is an introductory course on writing nonfiction for publication. Emphasis will be on developing a saleable magazine article: finding ideas and analyzing print and online publications; writing a query letter; researching and interviewing; organizing, writing, and illustrating an article.

ENGWR 331  Writing for Publication  3 Units
Advisory: ENGWR 300 or 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course offers a marketing approach to selling nonfiction writing. The course surveys print and online publication, including consumer magazines, trade journals, specialty publications, regional magazines, and local markets. Topics include an analysis of a variety of magazine article styles and types; writing and sending articles to the marketplace; individual and class criticism of student manuscripts. Emphasis is on increasing freelance writing production. The course may be taken twice for credit.

ENGWR 332  Introduction to Technical/Professional Communication  3 Units
Advisory: ENGWR 102 or 103; or placement through the assessment process.
General Education: AA/AS Area II(b)
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. The course teaches 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. The course may include team projects that require collaboration outside the classroom. One or more additional hours per week may be required in the Learning Resource Center.

ENGWR 334  Technical/Professional Communication: Writing Reports  1.5 Units
Advisory: ENGWR 103.
Course Transferable to CSU
Hours: 27 hours LEC
This course emphasizes the writing of reports for the workplace and for technical and scientific disciplines. The course covers audience analysis, standard report formats, research techniques, and concise, grammatical writing.

ENGWR 338  Technical/Professional Communication: Plain English  1.5 Units
Advisory: ENGWR 102 or 103.
Course Transferable to CSU
Hours: 27 hours LEC
This course emphasizes the use of clear, concise English in professional writing. The course begins with a brief review of English grammar and then covers common writing problems. The course also teaches professional editing techniques.

ENGWR 340  Technical/Professional Communication: Proposal Writing  1.5 Units
Advisory: ENGWR 342.
Course Transferable to CSU
Hours: 27 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. The use of workplace projects is encouraged. A collaborative project is required.

ENGWR 342  Introduction to Technical/Professional Communication: Writing Technical Manuals  3 Units
Advisory: ARTNM 352, CISA 305, and ENGWR 342
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.
ENGWR 354 Introduction to Careers in Technical Communication 1 Unit
Advisory: ENGWR 102 or 103.
Course Transferable to CSU
Hours: 18 hours LEC
This course examines trends in the profession of technical writing, including job opportunities, salaries, responsibilities, requirements, and tools. Permanent employment is compared to independent contracting and contracting with agencies. Visiting technical writers describe a day on the job and share tips for getting started. Topics include letters of application, resumes, and portfolios.

ENGWR 356 Writing Formal Reports 1 Unit
Advisory: ENGWR 342 or 344.
Course Transferable to CSU
Hours: 18 hours LEC
This technical writing course covers all the elements of formal reports, including how to write letters of transmittal, create title pages, automatically generate tables of contents, write executive summaries, format pages, and prepare glossaries and appendices. Style lessons focus on controlling tone, tense, person, and voice.

ENGWR 358 Writing Training Materials 1 Unit
Advisory: ENGWR 342 or 344.
Course Transferable to CSU
Hours: 18 hours LEC
This technical writing course focuses on developing training materials, including student handbooks, instructor guides, and other instructional aids. The course surveys instructional design theory and the impact of technology in the form of CBT (Computer-Based Training) and WBT (Web-Based Training).

ENGWR 480 Honors College Composition 3 Units
Prerequisite: Placement through assessment process.
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 exhibit complexity in both subject and structure. It emphasizes writing carefully reasoned, stylistically sophisticated essays of varying lengths and in varying rhetorical modes; at least one of those essays requires research and appropriate MLA documentation. Essays written during the term will total at least 6,500 words. One or more additional hours per week in the Learning Resources Center or Writing Across the Curriculum or Reading Across the Disciplines programs may be required.

ENGWR 481 Honors College Composition and Literature 3 Units
Prerequisite: Cumulative GPA of 3.0 or higher; 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 is an advanced course in critical reasoning and writing about literature. It examines the four major genres—the novel, the short story, poetry, and drama by authors representing diverse perspectives. It will explore principles of formal and informal logic, characteristics of sophisticated writing, and means of recognizing logical fallacies. Written analyses will total at least 6,500 words and will include material from secondary sources, cited and documented according to MLA format. Attendance at a live theater production may be required. One or more additional hours per week in the Learning Resource Center or Writing Across the Curriculum or Reading Across the Disciplines programs may be required.
American River College offers courses in English as a Second Language (ESL) designed to provide students with a command of the English language necessary to pursue both transfer and career goals.

ESL 97 ESL Center: Integrated Topics in ESL .5-1 Units
Prerequisite: ESLL 20, ESLR 20, and ESLW 20 with grades of “C” or better, or placement through the assessment process.
Hours: 54 hours LAB
This laboratory course enables English as a Second Language students placed at the novice-high through intermediate-high levels to develop, expand and reinforce multiple English language skills while working independently and/or in small groups. Coursework includes integrated study topics relative to vocabulary and study skills, reading and grammar use, idiomatic language study and application, TOEFL preparation and assorted integrated software programs. Students may register until the twelfth week of the semester as space permits and may earn .5 unit of credit for every 27 hours of work. ESL 97 is graded credit/no-credit and may be taken four times.

ESL 181 ESL Center: Skills in ESL .5-1.5 Units
Prerequisite: ESLL 310, ESLR 310, and ESLW 310 with a grade of “C” or better or placement through the assessment process.
Advisory: Concurrent enrollment in at least one ESL course at the 320, 330, or 340 level.
Hours: 81 hours LAB
Coursework consists of a variety of self-study modules on such topics as grammar, composition, reading, vocabulary, listening, pronunciation, study skills, and work place skills and is designed to develop and reinforce English language skills at advanced levels. Independent work on complex assignments will be required. Credit/No Credit grading only. May be taken for a maximum of 6 units.

Special studies offered in English As a Second Language

ESL 350 Advanced Composition and Literature 4 Units
Prerequisite: ESLR 340 and ESLW 340 with grades of “C” or better
General Education: AA/AS Area II(b); CSU Area A3
Course Transferable to UC/CSU
Hours: 72 hours 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 and emphasizes reading, oral, and written analysis of major literary works. Attendance at a live theater production is encouraged. Students will be required to write at least 8,500 words.

ESL - Grammar

ESLG 50 Intermediate-Mid Grammar 4 Units
Prerequisite: ESLW 40 with a grade of “C” or better, or placement through the assessment process.
Advisory: Enrollment in an ESL Listening and Speaking, Reading, and/or Writing course at the student's assessed level(s).
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: ESLG 50 with a grade of “C” or better or placement through the assessment process.
Advisory: Concurrent enrollment in other ESL skills at the student's assessed level.
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: ESLG 310 with a grade of “C” or better, or placement through the assessment process.
Advisory: Concurrent enrollment in other ESL skills at the student's assessed level.
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.

ESL - Listening

ESLL 20 Novice Listening and Speaking 4 Units
Advisory: One year of adult school and concurrent enrollment in ESL Reading and Writing courses at the student's assessed level(s) are highly recommended.
Hours: 72 hours LEC
This course focuses on understanding and producing appropriate language utilizing learned phrases and expressions required for everyday communication. Basic clarification strategies will be demonstrated and practiced. English sounds and intonation patterns will be introduced. Credit/no credit grading only. May be taken twice for credit.
ESLL 30 Novice-High Listening and Speaking 4 Units
Prerequisite: Placement through assessment.
Advisory: Concurrent enrollment in an ESL Reading and Writing course at the student's assessed level.
Hours: 72 hours LEC
This 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 will be introduced. Credit/no credit grading only. May be taken twice for credit.

ESLL 40 Intermediate-Low Listening and Speaking 4 Units
Prerequisite: ESLL 30 with a grade of "C" or better, or placement through assessment.
Advisory: Concurrent enrollment in an ESL Reading and Writing course at the student's assessed level.
Hours: 72 hours LEC
This is a course that develops the listening and speaking skills needed to succeed in college courses. Activities will focus on developing phrases and sentences to communicate ideas in familiar situations. The course includes group and individual listening and speaking activities, an overview of American English sounds, and practice in stress, rhythm, and intonation. May be taken twice for credit.

ESLL 50 Intermediate-Mid Listening and Speaking 4 Units
Prerequisite: ESLL 40 with a grade of "C" or better or placement through assessment.
Advisory: Concurrent enrollment in an ESL Reading and Writing course at the student's assessed level.
Hours: 72 hours LEC
This is a course to help students understand and be understood in both familiar and unfamiliar situations. Class activities will introduce academic listening and speaking activities and will continue to work on pronunciation skills. May be taken twice for credit.

ESLL 97 ESL Center: Listening Skills in ESL .5-1 Units
Prerequisite: ESLL 20, ESLR 20, and ESLW 20 with grade of "C" or better; or placement through the assessment process.
Hours: 54 hours LAB
This laboratory course enables English as a Second Language students placed at the novice-high through high-intermediate level to develop and reinforce specific listening and speaking skills while working independently and/or in small groups. Coursework includes offerings in listening comprehension, conversational skills, pronunciation, vocabulary and oral grammar topics. Students may register until the twelfth week of the semester as space permits and may earn .5 unit of credit for every 27 hours of work. ESLL 97 is graded credit/no-credit and may be taken four times.

ESLL 310 Intermediate-High Listening and Speaking 4 Units
Prerequisite: ESLL 50 with a grade of "C" or better, or placement through assessment.
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 is a course to further practice and develop listening and speaking for academic purposes, including comprehension of lecture, note-taking, and classroom discussion. This course covers a review of American English sounds with emphasis on understanding and producing stress, rhythm, and intonation patterns to communicate effectively. May be taken twice for credit.

ESLL 320 Advanced-Low Listening and Speaking 4 Units
Prerequisite: ESLL 310 with a grade of "C" or better or placement through assessment.
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 is a course with intensive practice in listening and active participation strategies for American 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 will continue. May be taken twice for credit.

ESLR 20 Novice Reading 4 Units
Prerequisite: Placement through assessment.
Advisory: Concurrent enrollment in an ESL Listening and Speaking and ESL Writing course at the student's assessed level.
Hours: 72 hours LEC
This course focuses on literal comprehension of words, phrases, sentences, and paragraphs in short texts at the Novice level. Topics include core vocabulary, spelling rules, and grammar necessary to understand short 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 ESLR 20, placement through the assessment process.
Advisory: Concurrent enrollment in an ESL Listening and Speaking and ESL Writing course at the student's assessed level.
Hours: 72 hours LEC
This course focuses on literal comprehension of words, phrases, sentences, and paragraphs in short texts at the Novice-High level. Topics include core vocabulary, spelling rules, and grammar necessary to understand short 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 an ESL Listening and Speaking and ESL Writing course at the student's assessed level.
Hours: 72 hours LEC
This course, intended for non-native speakers of English, focuses on understanding of vocabulary and readings at the Intermediate-Low level. There is a focus on developing reading skills, building vocabulary, and increasing fluency. 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 an ESL Listening and Speaking and ESL Writing course at the student's assessed level.
Hours: 72 hours LEC
This course, intended for non-native speakers of English, focuses on the introduction of academic reading skills, with an emphasis on vocabulary development, and literal comprehension. Course activities include reading, analyzing, discussing and writing responses to ideas expressed in texts at the Intermediate-Mid level, as well as further practice with dictionary skills.
ESLR 97  ESL Center: Reading Skills in ESL  4 Units
Prerequisite: ESLL 20, ESLR 20, and ESLW 20 with grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LAB
This laboratory course enables English as a Second Language students placed at the novice-high through intermediate-high levels to develop, expand and reinforce a variety of reading and vocabulary skills while working independently and/or in small groups. Coursework includes comprehension practice in reading through a variety of topics relative to the development of word parts and form, vocabulary expansion, dictionary skills, as well as comprehension, punctuation, fluency, and summarization skills. Students may register until the twelfth week of the semester as space permits and may earn .5 unit of credit for every 27 hours of work. ESLR 97 is graded credit/no-credit and may be taken four times.

ESLR 310  Intermediate-High Reading  4 Units
Prerequisite: ESLR 50 with a grade of “C” or better, or placement through assessment.
Advisory: Concurrent enrollment in other ESL skills at the student's assessed level.
Course Transferable to CSU
Hours: 72 hours LEC
This course focuses on the introduction of academic reading skills with an emphasis on speed, vocabulary expansion, and comprehension of ideas, and introduces library use. Practice will be provided in understanding, paraphrasing, summarizing, and responding, either orally or in writing, to ideas expressed in reading.

ESLR 320  Advanced-Low Reading  4 Units
Prerequisite: ESLR 310 with a grade of “C” or better, or placement through assessment.
Advisory: Concurrent enrollment in other ESL skills 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 also will include practice in research and synthesizing skills and extensive writing based on critical analysis of readings.

ESLR 340  Advanced Reading Skills Through Literature  4 Units
Prerequisite: ESLR 320 with a grade of “C” or better, or placement through assessment.
Advisory: Concurrent enrollment in an ESL Listening and Speaking and Writing course at the student's assessed level.
Course Transferable to CSU
Hours: 72 hours LEC
This course is designed to improve vocabulary and reading skills for the advanced ESL learner. Readings will include various forms of literature from a variety of cultural groups. It covers a wide variety of selections including essays, poetry, drama, short stories and novels. This course emphasizes critical thinking and reading skills needed for academic performance: (1) vocabulary development (2) analysis and comprehension skills (3) flexibility of reading rate. It also emphasizes the comparison contrast of universal and metaphorical themes, as applied in various cultures. AA/AS area 4B.

ESLR 97  ESL Center: Reading Skills in ESL  4 Units
Prerequisite: ESLL 20, ESLR 20, and ESLW 20 with grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LAB
This laboratory course enables English as a Second Language students placed at the novice-high through intermediate-high levels to develop, expand and reinforce a variety of reading and vocabulary skills while working independently and/or in small groups. Coursework includes comprehension practice in reading through a variety of topics relative to the development of word parts and form, vocabulary expansion, dictionary skills, as well as comprehension, fluency, and summarization skills. Students may register until the twelfth week of the semester as space permits and may earn .5 unit of credit for every 27 hours of work. ESLR 97 is graded credit/no-credit and may be taken four times.

ESLR 20  Novice Writing  4 Units
Advisory: One year of adult school and concurrent enrollment in ESL Reading and Listening/Speaking courses at the student's assessed levels are highly recommended.
Hours: 72 hours LEC
This course focuses on the structure of English sentences including parts of speech and word order. Emphasis is on the production of clear, basic written sentences using common everyday vocabulary. Question formation will also be demonstrated and practiced. Credit/no credit grading only. May be taken twice for credit.

ESLR 30  Novice-High Writing  4 Units
Prerequisite: ESLR 20; or placement through the assessment process.
Hours: 72 hours LEC
This course covers novice-high-level writing in English for non-native speakers who plan to take college courses. It provides instruction and practice in writing simple sentences and paragraph structures within the context of topic assignments.

ESLR 40  Intermediate-Low Writing  4 Units
Prerequisite: ESLR 30 with a grade of “C” or better or placement through assessment.
Advisory: Concurrent enrollment in an ESL Listening and Speaking and Reading course at the student's assessed level.
Hours: 72 hours LEC
This course provides practice in writing focused paragraphs with a clear beginning, middle and end. Critical thinking skills and correct grammar in writing will be stressed.

ESLR 50  Intermediate-Mid Writing  4 Units
Prerequisite: ESLR 40 with a grade of “C” or better, or placement through assessment.
Advisory: Concurrent enrollment in an ESL Listening and Speaking and Reading course at the student's assessed level.
Hours: 72 hours LEC
This course covers techniques essential to essay writing. Control of sentence structure in longer pieces of writing will continue to be developed.

ESLR 60  Spelling  2 Units
Prerequisite: ESLR 40 and ESLW 40 with a grade of “C” or better or placement through the assessment process.
Hours: 36 hours LEC
This course is designed for students who need to improve their spelling. It includes an introduction to the basic spelling rules and patterns of English. Activities will provide practice with homophones, suffixes and plurals. The course will foster competence in spelling. May be taken twice for credit.

ESLR 97  ESL Center: Writing Skills in ESL  4 Units
Prerequisite: ESLR 20, ESLR 20, and ESLW 20 with grades of “C” or better; or placement through the assessment process.
Hours: 54 hours LAB
This laboratory course enables English as a Second Language students placed at the novice-high through intermediate-high levels to develop and reinforce specific English language skills while working independently and/or in small groups. Coursework includes level-appropriate topics relative to all forms of written communication including grammar, sentence structure and punctuation, paragraph and essay formats, and related vocabulary and spelling. Students may register until the twelfth week of the semester as space permits and may earn .5 unit of credit for every 27 hours of work. ESLR 97 is graded credit/no-credit and may be taken four times.
ESLW 310 Intermediate-High Writing 4 Units
Prerequisite: ESLW 50 with a grade of “C” or better, or placement through assessment.
Advisory: Concurrent enrollment in other ESL skills at the student’s assessed level.
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course further develops the ability to respond to a variety of essay assignments. Class discussions and written responses to readings and prompts will exercise critical thinking skills. Control of a range of sentence structures will be refined.

ESLW 320 Advanced-Low Writing 4 Units
Prerequisite: ESLW 310 with a grade of “C” or better or placement through assessment.
Advisory: Concurrent enrollment in other ESL skills at the student’s assessed level.
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course exercises analytical and logical skills in the production of focused, developed and organized essays on a variety of topics. The course emphasizes sentence variety and the mechanics of English in the context of the essay. Essays will incorporate outside sources as well as personal experience.

ESLW 340 Advanced Composition 4 Units
Prerequisite: ESLW 320 with a grade of “C” or better or students continuing in ESL courses or placement through the assessment process for new ESL students.
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. This course satisfies the Written Expression Competency requirement for graduation and the English composition requirement of some California colleges and universities.
Fashion Design Degree

The associate degree in Fashion Design develops the skills necessary to coordinate original design concepts with manufacturing, marketing and merchandising practices. Course work includes basic industry sewing, pattern drafting, textiles, and current fashion trends, hand and computer illustration, and an internship in a fashion-related field.

Requirements for Degree

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Fashion Merchandising Degree

The associate degree in Fashion Merchandising develops the skills necessary for jobs in fashion coordinating, promotion, visual presentation, management, merchandising and retail buying. It also includes an internship in a fashion-related field.

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<td>Techniques of Management</td>
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FASHN 151 Basic Industry Sewing 3 Units
Hours: 36 hours LEC; 54 hours LAB
This course introduces basic fashion industry sewing techniques. Emphasis is on industry standards and specifications concerning construction, assembly, and sequence of operations. No previous sewing experience is required.

FASHN 294 Topics in Fashion .5-4 Units
Advisory: ENSWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, ESLW 320, or placement through assessment.
Hours: 72 hours LEC
This course is designed to give students an opportunity to study topics in fashion design and/or fashion merchandising not included in current course offerings. May be taken four times up to a maximum of 6 units providing there is no duplication of topics.

FASHN 298 Work Experience in Fashion 1-4 Units
Prerequisite: Current employment or voluntary position.
General Education: AA/AS Area III(b)
Hours: 72 hours LEC; 300 hours LAB
This course reflects supervised work experience in apparel merchandising. Students work in cooperating fashion apparel firms. Class enrollment is dependent upon student being in a paid or volunteer work experience learning environment. May be repeated for credit for a maximum of sixteen units.

FASHN 300 Introduction to the Fashion Industry 3 Units
Advisory: ENSWR 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 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 301 Fashion Analysis 3 Units
Advisory: ENSWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, ESLW 320, or placement through assessment.
Course Transferable to CSU
Hours: 54 hours LEC
This course applies the skills used in computer-based fashion illustration and design. Emphasis is placed on the principles and elements of design to develop a line of apparel including researching fashion trends, determining a target market, selecting colors and fabrics and designing a line using computer software.

FASHN 310 Fashion Marketing 3 Units
Prerequisite: FASHN 342 with a grade of C or better.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is an introduction to hand and computer generated fashion illustration. Illustration concepts unique to fashion are explored using various hand techniques and computer design software. Application of design elements and principles include color, texture, line, balance, and apparel details.

FASHN 315 Advanced Pattern Making and Design 3 Units
Prerequisite: FASHN 151 with a grade of C or better.
Advisory: ENSWR 102 or 103, and ENGRD 116 with a grade of C or better; OR ESLR 320, ESL 320, ESLW 320, or placement through assessment process.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course is an introduction to the flat pattern method of apparel design. Drafted slopers from measurements are used to create original designs. Construction techniques are introduced for the completion of these original designs. A field trip is required.

FASHN 330 History of Western World Fashion 3 Units
Advisory: ENSWR 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.
General Education: AA/AS Area 1; 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 economical context as expressed in dress. Emphasis will include cross cultural influences on major fashion trends throughout selected historical periods of the western world from the time of the Egyptians to the present.

FASHN 334 Vintage Costuming .5-2 Units
Advisory: ENSWR 102 and ENGRD 15, or ESLR 310 and ESLW 310; or placement through assessment process.
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers the factors that influence historical costume design and production. Principles and techniques involved in developing and constructing a period costume. The course will demonstrate these by fabricating their own costumes. The historical period will change each semester. May be taken four times for credit on different topics with a maximum of 8 units. Not open to those who have completed TA 416 on the same topic.
**FASHN 380  Computer Patternmaking  3 Units**  
Prerequisite: FASHN 378 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 patternmaking skills acquired in previous patternmaking classes. Working from a designer’s sketch, patterns are drafted and completed. A production pattern is made according to industry requirements and a muslin sample of the garment is constructed.

**FASHN 382  Collection Design and Production  3 Units**  
Prerequisite: FASHN 353 and 374 with grades of "C" or better  
Corequisite: FASHN 378  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course applies the skills obtained in previous design and patternmaking classes. Topics include designing a small collection, creating and modifying patterns, and constructing original garments. The role of accessorizing the completed design is explored, including the use of hats, jewelry, shoes and scarves. Finished collections are presented on the runway in a fashion show. This course may be taken two times for credit, showcasing different design collections.

**FASHN 393  Fashion Promotion  3 Units**  
Prerequisite: FASHN 300.  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course is a comprehensive study of promotion and presentation unique to fashion industry. Techniques, applications, and customer appeal related to fashion merchandising concepts are analyzed. Functions and instinctive uses of fashion advertising, publicity and visual merchandising will be explored. The focus will be on special events such as, fashion shows, trunk shows, and the use of promotional videos. Basic media strategy, the role it plays, and its relationship with fashion merchandisers will be examined. Planning and technical skills will be developed through the activity of producing a fashion show. Field trips will be required.

**FASHN 395  Visual Merchandising  2 Units**  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB  
This course introduces current visual merchandising techniques, equipment, lighting, and materials. The application of principles and practices in arranging and displaying fashion merchandise for single store and chain organization usage are covered. This practical experience with showcases, window, and on-floor displays will provide familiarity with professional fashion promotional presentations. A field trip is required.

**FASHN 397  Fashion Retail Buying  3 Units**  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course addresses the practical and business aspects of the fashion industry. Topics include defining the customer and researching current buying trends. Activities specific to fashion retail buying are explored, including developing a buying and stock plan and planning market purchases. Career opportunities in retail buying and merchandising are also explored. 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, marketing, selling techniques, tracking costs, and securing financing. A model business plan is developed by exploring resources necessary to be successful in a fashion business.

**FASHN 497  Internship in Fashion  3 Units**  
Prerequisite: FASHN 300, 320, 342, 374, or 395 with a grade of "C" or better  
Course Transferable to CSU  
Hours: 18 hours LEC; 150 hours LAB  
This course provides opportunity for supervised job internships at fashion-related work sites. Skills and knowledge obtained in fashion courses are utilized in a practical setting. Assistance for the internship search is provided by the coordinator, but placement is not guaranteed.
Fire Technology Degree and Certificate

The Fire Technology A.A. degree or certificate focuses on preparation 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.

Firefighting is a public safety profession that requires special knowledge of safety, rescue, emergency medical operations, and hazardous materials. A grade of “C” or better is required in each fire technology course for progression in the program.

Career Opportunities

A great variety of career opportunities is open to students who successfully complete specific portions of this program of study. There is an urgent demand for trained personnel in such areas as firefighter-paramedic, fire investigation, fire prevention, hazardous materials, public education, and firefighter. Financially and professionally rewarding employment in these areas may be found on the local, state, federal and private levels.

Requirements for Degree or Certificate: 35 Units

FT 200 Emergency Medical Technician I (5) .......................... 5
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

And a minimum of 15 units from the following: .......................... 15
FT 110 Fire Apparatus (3)
FT 130 Fire Company Organization and Management (3)
FT 132 Fire Service Records and Reports (3)
FT 140 Related Codes and Ordinances (3)
FT 170 Fire Investigation (3)
FT 180 Rescue Practices (3)
FT 190 Fire Tactics and Strategy (3)
FT 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.

Degree: A.A. - Fire Technology
Certificate: Fire Technology

FT 110 Fire Apparatus 3 Units
Advisory: FT 300 or FIRE 1090.
Hours: 54 hours LEC
This course covers fire apparatus design, specifications and performance capabilities. It also includes the effective utilization of apparatus in fire service emergencies.

FT 130 Fire Company Organization and Management 3 Units
Advisory: FT 300 or FIRE 1090.
Hours: 54 hours LEC
This course provides a review of fire department organization, planning, organizing and supervising to meet the needs of the fire department, with emphasis on the company officer’s role.

FT 132 Fire Service Records and Reports 3 Units
Advisory: FT 300 or FIRE 1090.
Hours: 54 hours LEC
This course covers fire department records systems, principles of report writing, applications in the area of pre-fire survey, and post-fire reporting.

FT 140 Related Codes and Ordinances 3 Units
Advisory: FT 300 or FIRE 1090.
Hours: 54 hours LEC
This course includes familiarization and interpretation of national, state and local codes, ordinances and laws which influence the field of fire prevention.

FT 170 Fire Investigation 3 Units
Advisory: FT 300 or FIRE 1090.
Hours: 54 hours LEC
This course includes determining the cause of fires (accidental, suspicious and incendiary); types of fires, related laws; introduction to incendiary fires; recognizing and preserving evidence; interviewing witnesses and suspects, arrest, detention, and court procedures.

FT 180 Rescue Practices 3 Units
Advisory: FT 300 or FIRE 1090.
Hours: 54 hours LEC
This course focuses on rescue problems and techniques, emergency rescue equipment; toxic gases, chemicals, diseases, and radiation hazards. Also included are the care of victims including emergency childbirth, respiration and resuscitation, extrication and other emergency conditions.

FT 190 Fire Tactics and Strategy 3 Units
Advisory: FT 300 or FIRE 1090.
Hours: 54 hours LEC
This course includes principles of fire control through the utilization of manpower, equipment, and extinguishing agents on the fireground.

FT 192 Wildland Fire Control 3 Units
Advisory: FT 300 or FIRE 1090.
Hours: 54 hours LEC
This course covers all aspects of wildland fire fighting and introduces new advances in technology for wildland fire suppression.
FT 200  Emergency Medical Technician I  5 Units
Same As: PMED 100
Prerequisite: HEED 323 with a grade of “C” or better
Enrollment Limitation: Not open to students with a current EMT - Basic certificate.
Hours: 72 hours LEC; 72 hours LAB
This course is designed to provide instruction to the level of Emergency Medical Technician - Basic. Topics include skills necessary to provide emergency medical care at a basic life support level with a fire, ambulance, or other specialized service. This course is conducted in compliance with Title 22, Division 9, Chapter 2 of the California Code of Regulations and Emergency Medical Technician - Basic (EMT-I). A “C” or better is required for certification as Emergency Medical Technician - Basic. Field trips are required. This course may be taken four times for credit.

FT 209  Emergency Medical Technician IFS Refresher Course  1 Unit
Prerequisite: Valid EMT certificate.
Hours: 20 hours LEC; 4 hours LAB
Persons who hold a valid Emergency Medical Technician I certificate, or a certificate that has been expired for less than one year, shall be admitted. Consists of classroom instruction, simulation and supervised field instruction. May be taken four times for credit.

FT 300  Fire Protection Organization  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course provides an introduction to fire protection, 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, laws and regulations affecting the fire service, fire service nomenclature, specific fire protection functions, basic fire chemistry and physics, introduction to fire protection systems, and introduction to fire strategy and tactics.

FT 301  Fire Prevention Technology  3 Units
Corequisite: FIRE 1090 or FT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course provides fundamental information regarding the history and philosophy of fire prevention. Topics include organization and operation of a fire prevention bureau, use of fire and building codes, fire investigation, identification and correction of fire hazards, plan review, report and record keeping, and duties and responsibilities of a fire prevention officer.

FT 302  Fire Protection Equipment and Systems  3 Units
Corequisite: FIRE 1090 or FT 300.
Course Transferable to CSU
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, special protection and sprinkler systems, water supply for fire protection, standpipe systems, and portable fire extinguishers.

FT 303  Building Construction for Fire Protection  3 Units
Corequisite: FIRE 1090 or FT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course is the study of the components of building construction that relate to fire safety. Specific focus is on elements of construction and the design of structures that are shown to be key factors when inspecting buildings, pre-planning fire operations and emergency operations at fires. Topics include wood, ordinary, steel, and concrete construction, principles of fire and smoke growth, and fire resistance construction.

FT 304  Fire Behavior and Combustion  3 Units
Corequisite: FIRE 1090 or FT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course provides the theories and fundamentals of how and why fires start, spread and are controlled. Topics include an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques.

FT 310  Fire Service Hydraulics  3 Units
Advisory: FT 300 or FIRE 1090.
Course Transferable to CSU
Hours: 54 hours LEC
This course provides information on obtaining water from various sources of supply, properly routing it through the pump, and discharging it through various devices with the proper pressures for fire suppression.

FT 320  Hazardous Materials  3 Units
Advisory: FT 300 or FIRE 1090.
Course Transferable to CSU
Hours: 54 hours LEC
This course is an Introduction to the world of hazardous chemicals, including physical properties, uses in industry, and characteristics when involved in spills, fires, and accidents. This course also provides basic hazardous materials information regarding emergency procedures, legal requirements, and compliance to regulations.
French

FREN 351 Conversational French, Elementary  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed for students at the elementary or 401 level in French. Conversations and discussions, both controlled and spontaneous, are used to develop basic conversational skills in French. Emphasis will include oral proficiency and development of French cultural awareness.

FREN 352 Conversational French, Elementary  3 Units
Prerequisite: FREN 351 with a grade of “C” or better or two years of high school French.
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed for students at the elementary or 402 level in French. Students will continue the development of oral-aural skills in French through conversations and discussions, both controlled and spontaneous. Emphasis will include oral proficiency and development of French cultural awareness.

FREN 361 Conversational French, Intermediate  3 Units
Prerequisite: FREN 352 with a grade of “C” or better or three years of high school French.
Course Transferable to CSU
Hours: 54 hours LEC
Students will continue the development of oral-aural skills in French through small group conversations and class discussions, both directed and open-ended. Grammar structures, idiomatic expressions, and verb usage will be reviewed. Reports, discussions on current events, assigned readings, and personal interest topics will be used in individual and group presentations.

FREN 362 Conversational French, Intermediate  3 Units
Prerequisite: FREN 361 with a grade of “C” or better or four years of high school French.
Course Transferable to CSU
Hours: 54 hours LEC
Students will continue to develop oral proficiency through emphasis on individual and small group presentation. Simple French readings will be used as a vehicle to continue the study and appreciation of the French culture and folklore through discussions and debates.

FREN 401 Elementary French  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 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.

Foreign Languages

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: AA/AS Area I
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is a further development of the four basic skills: listening, speaking, reading and writing. It is a continued study of pronunciation, fundamentals of French grammar and French culture.

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: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course includes speaking, listening, and writing practice at the intermediate level of French. It also reviews French grammar, and offers readings of varied texts, many of which explore the historic, artistic and cultural backgrounds of France and French-speaking countries.

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: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is a further exploration of the culture, history and arts of French-speaking countries, begun in French 411. Grammar and syntax are examined as a means to that exploration.

German

GERM 351 Conversational German, Elementary  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed for students at the elementary or 401 level in German. Conversations and discussions, both controlled and spontaneous, are used to develop basic conversational skills in German. Emphasis will include oral proficiency and development of German 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: 54 hours LEC
This course is designed for students at the elementary or 402 level in German. Students will continue the development of oral-aural skills in German through conversations and discussions, both controlled and spontaneous. Emphasis will include oral proficiency and development or German cultural awareness.
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 understanding, speaking, reading, and writing Italian with emphasis on the communicative skills, as well as the fundamentals of Italian pronunciation and grammar.

ITAL 411 Intermediate Italian  4 Units
Prerequisite: ITAL 401 with grade of “C” or better or two years of high school Italian.
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is a continuation of ITAL 401. It includes grammar essentials, further practice in conversation and composition, and a continued study of Italian culture.

ITAL 400 Elementary Japanese  4 Units
General Education: AA/AS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This class teaches pronunciation, intonation, basic vocabulary and grammar of spoken Japanese. The grammar emphasis is word order, postposition and some conjugation in simple sentences. Students are required to learn Hiragana script. The course includes introduction to Japanese culture.

ITAL 352 Conversational Italian, Elementary  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 elementary or 402 level in Italian. Students will continue the development of oral-aural skills in Italian through conversations and discussions, both controlled and spontaneous. Emphasis will include oral proficiency and development of Italian cultural awareness.

ITAL 351 Conversational Italian, Elementary  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed for students at the elementary or 401 level in Italian. Conversations and discussions, both controlled and spontaneous, are used to develop basic conversational skills in Italian. Emphasis will include oral proficiency and development of Italian cultural awareness.

Japanese

JAPAN 401 Elementary Japanese  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 language of the German-speaking world. It includes the fundamentals of German pronunciation and grammar, as well as the development of listening, speaking, reading, and writing with emphasis on the communicative skills.

JAPAN 400 Elementary Japanese  4 Units
General Education: AA/AS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is designed for students at the elementary or 401 level in Japanese. Conversations and discussions, both controlled and spontaneous, are used to develop basic conversational skills in Japanese. Emphasis will include oral proficiency and development of Japanese cultural awareness.
**Mandarin**

**MAND 101 Conversational Mandarin, Elementary** 3 Units

*Hours: 54 hours LEC*

This beginning course in conversational Mandarin emphasizes the development of oral language skills essential for understanding and speaking elementary Mandarin useful for everyday communication.

**MAND 102 Conversational Mandarin, Elementary** 3 Units

*Prerequisite: Chinese 50A with a grade of “C” or better. Hours: 54 hours LEC*

This course is a continuation of Chinese 50A. Further acquisition of language skills in understanding and speaking will be emphasized. Additional vocabulary and sentence patterns will be introduced. Students will gain proficiency in understanding and speaking Mandarin in everyday situations.

**MAND 401 Elementary Mandarin** 4 Units

*General Education: AA/AAS Area I; IGETC Area 6 Course Transferable to UC/CSU Hours: 72 hours LEC*

This beginning course in Mandarin Chinese emphasizes pronunciation drill, sentence pattern analysis, and the development of language skills in listening, speaking, reading, and writing. Character reading and writing are introduced.

**MAND 402 Elementary Mandarin** 4 Units

*Prerequisite: MAND 401 with a grade of “C” or better General Education: AA/AAS Area I Course Transferable to UC/CSU Hours: 72 hours LEC*

This course is a continuation of MAND 401. Further acquisition of language skills in listening, speaking, reading, and writing will be emphasized. Additional character reading and writing skills will be developed. Students will gain proficiency in understanding and speaking Mandarin in everyday situations.

**MAND 405 Chinese Characters** 1 Unit

*Prerequisite: MAND 401. Course Transferable to UC/CSU Hours: 18 hours LEC*

This is a beginning course in the study of Chinese characters. Fundamentals of the Chinese written language will be taught with an emphasis on reading and writing Chinese characters common in daily usage. This course may be taken twice.

**Russian**

**RUSS 401 Elementary Russian** 4 Units

*General Education: AA/AAS Area I; IGETC Area 6 Course Transferable to UC/CSU Hours: 72 hours LEC*

Listening, speaking, reading, and writing. Fundamentals of Russian pronunciation and grammar. Exposure to the character and customs of the Russian people.

**RUSS 402 Elementary Russian** 4 Units

*Prerequisite: RUSS 401 or 2 years of high school Russian General Education: AA/AAS Area I Course Transferable to UC/CSU Hours: 72 hours LEC*

Continuation of RUSS 401. Further development of listening, speaking, reading, and writing skills. Continued study of Russian grammar fundamentals. Further exposure to Russian character and customs.

**RUSS 411 Intermediate Russian** 4 Units

*Prerequisite: RUSS 402 or three years of high school Russian. General Education: AA/AAS Area I; CSU Area C; IGETC Area 3B Course Transferable to UC/CSU Hours: 72 hours LEC*

Intermediate levels listening and speaking practice. Further development of grammatical structures. Reading of modern prose.

**RUSS 412 Intermediate Russian** 4 Units

*Prerequisite: RUSS 411 or four years of high school Russian General Education: AA/AAS Area I; CSU Area C; IGETC Area 3B Course Transferable to UC/CSU Hours: 72 hours LEC*

Continuation of RUSS 411. Reading and interpreting major types of Russian literature (short story, novel, drama, poetry). Practice in speaking and writing. Studying the historical and cultural background.

**Spanish**

**SPAN 131 Foreign Language Lab: Integrated Topics in Spanish** .5-1 Units

*Hours: 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 SPAN 401, 402, and 411. Students may register until the twelfth week of the semester as space permits and may earn .5 unit of credit for every 27 hours of work. This course is graded credit/no-credit and may be taken four times on different topics up to a maximum of 4 units.

**SPAN 311 Conversational Spanish, Intermediate** 2 Units

*Prerequisite: SPAN 402 with a grade of “C” or better or two years of high school Spanish. Course Transferable to CSU Hours: 36 hours LEC*

This course is designed at the intermediate level in Spanish with focus on further development of oral-aural skills through conversations and discussions, both directed and spontaneous. Emphasis will be on fostering oral proficiency and further development of Hispanic cultural awareness.

**SPAN 312 Conversational Spanish, Intermediate** 2 Units

*Prerequisite: SPAN 311 with a grade of “C” or better or three years of high school Spanish. Course Transferable to UC/CSU Hours: 36 hours LEC*

This course is designed at the intermediate level in Spanish with focus on further development of oral-aural skills through conversations and discussions, both directed and spontaneous. Emphasis will be on fostering oral proficiency and further development of Hispanic cultural awareness.

**SPAN 351 Conversational Spanish, Elementary** 3 Units

*Course Transferable to CSU Hours: 54 hours LEC*

This course is designed for students at the elementary or 401 level in Spanish. Conversations and discussions, both controlled and spontaneous, are used to develop basic conversational skills in Spanish. Emphasis will include oral proficiency and development of Hispanic cultural awareness.
SPAN 352  Conversational Spanish, Elementary  3 Units
Prerequisite: SPAN 351 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 designed for students at the elementary level in Spanish. Students will continue the development of oral-aural skills in Spanish through conversations and discussions, both directed and open-ended. Grammar structures, idiomatic expressions, and verb usage will be reviewed. Reports, discussions on current events, assigned readings, and personal interest topics will be used in individual and group presentations.

SPAN 361  Conversational Spanish, Intermediate  3 Units
Prerequisite: Spanish 352 with a grade of “C” or better or three years of high school Spanish.
Course Transferable to CSU
Hours: 54 hours LEC
Students will continue the development of oral-aural skills in Spanish through small group conversations and class discussions, both directed and open-ended. Grammar structures, idiomatic expressions, and verb usage will be reviewed. Reports, discussions on current events, assigned readings, and personal interest topics will be used in individual and group presentations.

SPAN 362  Conversational Spanish, Intermediate  3 Units
Prerequisite: Spanish 361 with a grade of “C” or better or four years of high school Spanish.
Course Transferable to CSU
Hours: 54 hours LEC
Students will continue to develop oral proficiency through emphasis on individual and small group presentation. Simple Hispanic readings will be used as a vehicle to continue the study and appreciation of the Hispanic culture and folklore through discussions, and debates.

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 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 the communicative skills, as well as the fundamentals of Spanish pronunciation and grammar.

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
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course provides continued development of the language 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.

SPAN 408  Elementary Spanish I Multimedia Enhancement  2 Units
Corequisite: SPAN 401.
Course Transferable to CSU
Hours: 36 hours LEC
This course is designed at the introductory level using multimedia with focus on listening and speaking skills in Spanish. Opportunities to practice and speak Spanish in both small and large group formats will be provided in the course. Activities further reinforce what is introduced in Spanish 401. May be taken two times for credit. Credit/no credit only.

SPAN 409  Elementary Spanish II Multimedia Enhancement  2 Units
Prerequisite: SPAN 409.
Advisory: SPAN 402.
Course Transferable to CSU
Hours: 36 hours LEC
This course is designed at the introductory level using multimedia with focus on listening and speaking skills in Spanish. The opportunity to practice and speak Spanish in both small and large group formats will be provided in the course. Activities further reinforce what is introduced in Spanish 402. May be taken two times for credit. Credit/no credit only.

SPAN 411  Intermediate Spanish  4 Units
Prerequisite: SPAN 402 with grade of “C” or better or three years of high school Spanish.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course includes listening and speaking practice at the intermediate level and review of the fundamentals of Spanish grammar. Students begin writing short paragraphs in Spanish. Further study of cultural and historical background is included.

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 C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course continues the development of the four basic skills through reading and discussion of major types of Spanish literature (short story, drama, poetry). Writing of paragraphs and short compositions is included. Students read and discuss the historical and cultural background of the Spanish-speaking world.

SPAN 418  Intermediate Spanish I Multimedia Enhancement  2 Units
Prerequisite: SPAN 409.
Advisory: SPAN 411.
Course Transferable to CSU
Hours: 36 hours LEC
This course is designed at the intermediate level using multimedia with focus on listening and speaking skills in Spanish. Opportunities to practice and speak Spanish in both small and large group formats will be provided in this course. Activities further reinforce what is introduced in Spanish 411. May be taken two times for credit. Credit/no credit only.

SPAN 419  Intermediate Spanish II Multimedia Enhancement  2 Units
Prerequisite: SPAN 418.
Corequisite: SPAN 411.
Course Transferable to CSU
Hours: 36 hours LEC
This course is designed at the intermediate level using multimedia with focus on listening and speaking skills in Spanish. Opportunities to practice and speak Spanish in both small and large group formats will be provided in this course. Activities further reinforce what is introduced in Spanish 411. May be taken two times for credit. Credit/no credit only.
Funeral Service Education Degree
The Funeral Service Education program is a two-year associate of science degree that prepares students for entry-level positions in funeral service. The program 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) 3432 Ashland Avenue, Suite U, St. Joseph, Missouri 64506 (816) 233-3747. Web: www.abfse.org

NOTE: All courses require a grade of “C” or better and the National Board Examination must be completed before graduation.

The annual passage rate of first-time takers on the National Board Examination (NBE) for the most recent three-year period for this institution and all ABFSE accredited funeral service education programs is posted on the ABFSE web site (www.abfse.org).

Career Opportunities
The student is eligible to take the state board examination to become a licensed funeral director in California. The student also meets the criteria to take the state embalmer’s examination.

Program Goals and Objectives
- 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
- 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 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

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).
- BIOL 102 and FSE 100 with a grade of “C” or better.
- 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 www.arc.losrios.edu/fse. The Funeral Service Education program currently accepts students once per year for the Spring semester which begins in January. Applications for the Spring semester are available by September 15th and the deadline to submit the application is by the second Friday in December.
- 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**

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<tr>
<td>3rd Semester</td>
<td></td>
</tr>
<tr>
<td>FSE 120 Embalming I</td>
<td>[3]</td>
</tr>
<tr>
<td>FSE 130 Restorative Art</td>
<td>[3.5]</td>
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<tr>
<td>FSE 150 Funeral Service Management</td>
<td>[3]</td>
</tr>
<tr>
<td>ACCT 101 Fundamentals of College Accounting</td>
<td>[3]</td>
</tr>
<tr>
<td>CISC 300 Computer Familiarization</td>
<td>[1]</td>
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<tr>
<td>4th Semester</td>
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</tr>
<tr>
<td>FSE 121 Embalming II</td>
<td>[2]</td>
</tr>
<tr>
<td>FSE 170 Funeral Services Counseling</td>
<td>[3]</td>
</tr>
<tr>
<td>FSE 297 Internship in Funeral Service Education</td>
<td>[5]</td>
</tr>
<tr>
<td>PSYC 390 Psychology of Death and Dying</td>
<td>[3]</td>
</tr>
</tbody>
</table>

**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.

**FSE 100 Introduction to Funeral Service Education** 2 Units

Advisory: BUS 310 or ENGWR 103; or placement through the assessment process.

Hours: 36 hours LEC

This course is a survey of the history of the funeral service industry. A comprehensive overview of the field of funeral service is covered. 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.

**FSE 110 Funeral Directing I** 2 Units

Corequisite: BUS 340, CHEM 130, and FSE 160

Advisory: BUS 310, ENGWR 103, ENGWR 300, or ESLW 340; or placement through the assessment process.

Enrollment Limitation: Acceptance into the Funeral Service Education Program

Hours: 36 hours LEC

This course is designed to introduce the general practices of funeral directing. It introduces 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.

**FSE 111 Funeral Directing II** 2 Units

Prerequisite: FSE 110 with a grade of "C" or better

Corequisite: BIOL 130, FSE 140, and FSE 155

Hours: 36 hours LEC

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. Also included are procedures for fraternal, military, and celebrity funerals. Field trips may be required.

**FSE 120 Embalming I** 3 Units

Prerequisite: Acceptance into the Funeral Service Education Program.

Corequisite: FSE 130.

Hours: 54 hours LEC

This course is an introduction to the phenomenon of death in the human body. It includes the processes of preservation, restoration and sanitation in treating the dead human body.

**FSE 121 Embalming II** 2 Units

Prerequisite: FSE 120 and 130 with a grade of "C" or better.

Corequisite: FSE 120.

Hours: 54 hours LEC

This course is a continuation of Embalming I. 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 130 Restorative Art** 3.5 Units

Prerequisite: FSE 140 with a grade of "C" or better.

Corequisite: FSE 120.

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. Included are the study of facial features, cosmetics, and restorative treatment for a variety of situations faced by the practitioner.

**FSE 140 Pathology** 2 Units

Prerequisite: CHEM 130 with a grade of "C" or better.

Corequisite: BIOL 130.

Enrollment Limitation: Acceptance into the Funeral Service Education program.

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 150 Funeral Service Management** 3 Units

Prerequisite: Accounting 101 or 301 and FSE 111 with grades of "C" or better

Corequisite: FSE 120.

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, theory as it relates to funeral service practice is addressed. Field trips may be required.

**FSE 155 Merchandising in the Funeral Service Industry** 3 Units

Prerequisite: FSE 110 with a grade of "C" or better

Corequisite: BIOL 130, FSE 111, and FSE 140

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 160  Funeral Service Law and Ethics**  3 Units  
Corequisite: FSE 110.  
Advisory: BUS 310 or ENGW 103; or placement through the assessment process.  
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. Further, this course covers personal and professional ethics that guide decisions and actions in the proper treatment of the dead.

**FSE 170  Funeral Services Counseling**  3 Units  
Prerequisite: FSE 111 with a grade of “C” or better  
Corequisite: FSE 121, FSE 297, and PSYC 390  
Hours: 54 hours LEC  
This course examines communication skills and the role of the funeral director as facilitator, counselor, and caregiver. Included are specific communications and counseling techniques as they are applied in funeral service practice. Field trips may be required.

**FSE 297  Internship in Funeral Service Education**  5 Units  
Corequisite: FSE 121, FSE 170, and PSYC 390.  
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 a onsite lab experience program at an approved off-campus preceptor site.

**FSE 1000  California Embalmer’s Examination Review**  .5 Units  
Advisory: FSE 120.  
Hours: 9 hours LEC  
This course reviews embalming, restorative art, embalming chemistry, pathology, microbiology, safety, and California laws pertaining to the profession of embalming. The course identifies areas to study while preparing for the California Embalmer’s Examination. Credit/No Credit only.
Geography Degree

The A.S. degree provides students with a solid foundation in geography as well as the standard prerequisites for upper division coursework leading to the baccalaureate degree. The required and elective coursework surveys a broad spectrum of physical geography, cultural geography, geographic information sciences, and related disciplines.

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.

Requirements for Degree  19 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</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>
<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems (3)</td>
<td>3</td>
</tr>
<tr>
<td>or GEOG 334</td>
<td>Introduction to Desktop GIS (3)</td>
<td></td>
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<tr>
<td>or CISC 310</td>
<td>Introduction to Computer Information Science (3)</td>
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<tr>
<td>PSYC 330</td>
<td>Introductory Statistics for the Behavioral Sciences (3)</td>
<td>3</td>
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<tr>
<td>or STAT 301</td>
<td>Introduction to Probability and Statistics (3)</td>
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</tbody>
</table>

And a minimum of 6 units from the following: ........................................ 6*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology (3)</td>
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<tr>
<td>BIOL 352</td>
<td>Conservation Biology (3)</td>
<td></td>
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<tr>
<td>or BIOL 310</td>
<td>General Biology (4)</td>
<td></td>
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<tr>
<td>or BIOL 305</td>
<td>Natural History (4)</td>
<td></td>
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<tr>
<td>ECON 304</td>
<td>Principles of Microeconomics (3)</td>
<td></td>
</tr>
<tr>
<td>or ECON 302</td>
<td>Principles of Macroeconomics (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 306</td>
<td>Weather and Climate (3)</td>
<td></td>
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<tr>
<td>GEOG 320</td>
<td>World Regional Geography (3)</td>
<td></td>
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<tr>
<td>GEOG 322</td>
<td>Geography of California (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 390</td>
<td>Field Studies in Geography (0.5 - 4)</td>
<td></td>
</tr>
<tr>
<td>GEOL 300</td>
<td>Physical Geology (3)</td>
<td></td>
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<tr>
<td>GEOL 301</td>
<td>Physical Geology Laboratory (1)</td>
<td></td>
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<tr>
<td>GEOL 330</td>
<td>Introduction to Oceanography (3)</td>
<td></td>
</tr>
<tr>
<td>GEOL 331</td>
<td>Introduction to Oceanography Lab (1)</td>
<td></td>
</tr>
<tr>
<td>HIST 300</td>
<td>History of Western Civilization (3)</td>
<td></td>
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<tr>
<td>or HIST 302</td>
<td>History of Western Civilization (3)</td>
<td></td>
</tr>
<tr>
<td>or HIST 327</td>
<td>History of the Chicano/Mexican American (3)</td>
<td></td>
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<tr>
<td>or HIST 325</td>
<td>History of Asian/Pacific Americans (3)</td>
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<tr>
<td>or HIST 320</td>
<td>History of the United States: African-American Emphasis (3)</td>
<td></td>
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<tr>
<td>or HIST 311</td>
<td>History of the United States (3)</td>
<td></td>
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<tr>
<td>or HIST 310</td>
<td>History of the United States (3)</td>
<td></td>
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<tr>
<td>HUM 320</td>
<td>Asian Humanities (3)</td>
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<tr>
<td>PHIL 350</td>
<td>Philosophy of Religion (3)</td>
<td></td>
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<tr>
<td>POLS 310</td>
<td>Introduction to International Relations (3)</td>
<td></td>
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<tr>
<td>SOC 300</td>
<td>Introductory Sociology (3)</td>
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</tbody>
</table>

* A maximum of 2 units from GEOG 390 will be counted toward the degree requirement.

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.

Geographic Information Systems (GIS) Degree

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 “real-world” work experience in GIS. Refer to the department web site for examples of course sequencing.

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  40 - 43 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>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>
</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</td>
<td>3</td>
</tr>
<tr>
<td>GEG 344</td>
<td>Spatial Analysis and Modeling in GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEG 350</td>
<td>Data Acquisition in GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEG 354</td>
<td>Introduction to the Global Positioning System (GPS)</td>
<td>1</td>
</tr>
<tr>
<td>GEG 360</td>
<td>Database Design and Management in GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEG 498</td>
<td>Work Experience in Geography</td>
<td>1 - 4</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management</td>
<td>3</td>
</tr>
<tr>
<td>CISP 372</td>
<td>Beginning Visual Basic for Applications Programming</td>
<td>1</td>
</tr>
</tbody>
</table>
And a minimum of 15 units from the following: .............................. 15
GEOG 362  Advanced Database Design and Management in GIS (3)
GEOG 375  Introduction to GIS Programming (3)
GEOG 376  Intermediate GIS Programming (3)
GEOG 380  Advanced GIS Software Applications (4)
GEOG 385  Introduction to Web Based GIS Application Development (3)
GEOG 386  Using GIS for Disaster Management (3)

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.

Geographic Information Systems (GIS) - Certificate
Geographic Information Systems (GIS) are collections of computers, software applications, and personnel used to capture, store, transform, manage, analyze, and display spatial information. This powerful technology has a wide range of applications in planning and management by government agencies, businesses, 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 “real-world” work experience in GIS. Refer to the department web site for examples of course sequencing.

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 Certificate .......................... 34-37 Units
GEOG 330  Introduction to Geographic Information Systems .......................... 3
GEOG 334  Introduction to GIS Software Applications .......................... 3
GEOG 340  Cartographic Design for GIS ........................................... 3
GEOG 342  Introduction to Remote Sensing and Digital Image Processing ........................................... 3
GEOG 344  Spatial Analysis and Modeling in GIS ........................................... 3
GEOG 350  Data Acquisition in GIS ........................................... 3
GEOG 354  Introduction to the Global Positioning System (GPS) ........................................... 1
GEOG 360  Database Design and Management in GIS ........................................... 3
GEOG 498  Work Experience in Geography ........................................... 1 - 4
CISA 320  Introduction to Database Management ........................................... 3
CISP 372  Beginning Visual BASIC for Applications Programming ........................................... 1

GEOG 300 Physical Geography: Exploring Earth’s Environmental Systems .......................... 3 Units
Advisory: MATH 100, ENGRD 116, ENGWR 51 or ESLW 310, or placement though assessment process.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course presents a systematic survey of the physical earth and the natural processes that influence humankind. The course provides an introduction to the use of maps and other tools employed in the analysis of patterns of weather, climate, soils, landforms, and vegetation.

GEOG 301 Physical Geography Laboratory .......................... 1 Unit
Corequisite: GEOG 300
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is a laboratory study of basic principles and concepts involved in understanding Earth’s environmental systems. Labs include observation, collection, analysis and display of data related to the study of energy, weather and climate, vegetation, soils, landforms, and environmental hazards. Additionally, units feature geographic methods and technology, including interpretation of maps and other geographic imagery, weather instrumentation, the global positioning system (GPS), and relevant computer and Internet applications. Field trips may be required.

GEOG 306 Weather and Climate .......................... 3 Units
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to atmospheric processes including energy and moisture exchanges, atmospheric pressure, global circulation, precipitation processes, weather systems, severe weather, and world, regional, and local climate systems. Course content also includes observation and analysis of atmospheric data using charts, weather maps, and radar and satellite imagery from the Internet and other sources.

GEOG 307 Environmental Hazards and Natural Disasters .......................... 3 Units
Same As: GEOG 325
General Education: 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, and flooding. 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. The course addresses geology, engineering, environmental studies, natural resources, geography, and science education. One field trip is required. Not open to students who have completed GEOG 325.
**GEOG 308 Introduction to Oceanography** 3 Units  
Same As: GEOG 331  
Advisory: GEOG 300 or GEOG 330  
General Education: AA/AAS Area V(b); CSU Area D5; IGETC Area 4E  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is an integrated study of water on Earth emphasizing physical oceanography. Topics include ocean and shoreline processes, plate tectonics, sea floor morphology, types and distribution of seafloor sediment, ocean sediment transport, ocean chemistry, ocean currents, marine resources, and environmental concerns. 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 330.

**GEOG 309 Introduction to Oceanography Lab** 1 Unit  
Same As: GEOG 331  
Corequisite: GEOG 308 or GEOG 330  
Advisory: GEOG 300 or GEOG 330  
General Education: CSU Area B3; IGETC Area 5A  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course is a laboratory investigation of water on Earth, emphasizing the shape of the sea floor, marine navigation, plate tectonics, sea floor materials and their utilization, the spatial distribution of ocean sediment, the physical and chemical nature of sea water, currents, tides, and marine weather. This course is not open to students who have completed GEOG 331.

**GEOG 310 Human Geography: Exploring Earth’s Cultural Landscapes** 3 Units  
Advisory: ENGRD 116 or ESLR 320; ENGWR 51 or ESLW 310; MATH 32; or placement through assessment process  
General Education: AA/AAS Area V(b); AA/AAS Area VI; CSU Area D5; IGETC Area 4E  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course considers the diverse patterns of human development, attitudes, and movement on earth. People’s various societal and economic systems and their different levels of interaction with nature are studied. World population and world food systems are surveyed and analyzed. The growth of cities and urban areas are considered, as are aspects of regional planning. The goal is to gain an understanding of people’s place on earth and, thus, improve human relations and also people’s relationship to the earth.

**GEOG 320 World Regional Geography** 3 Units  
General Education: AA/AAS Area V(b); AA/AAS Area VI; CSU Area D5; IGETC Area 4E  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is a global survey of the world’s cultural regions. Basic geographic concepts and ideas are used to study and compare people, resources, landscapes, livelihood and economics, and origins across eight major geographic regions. The interaction of countries and regions, their global roles, and the conflicting pressures of cultural diversity versus globalization are presented. The widening gap between more developed and less developed countries is integrated throughout. Cultural and ethnic diversity, as it pertains to the expanding population of the United States, is also a major component.

**GEOG 322 Geography of California** 3 Units  
General Education: AA/AAS Area V(b); AA/AAS Area VI; CSU Area D5; IGETC Area 4G; IGETC Area 4E  
Course Transferable 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 landforms, climate, natural vegetation, soils and resources with people. Historical, political, and economic development within this diverse environment is presented. The diversity of cultures which make up the state’s expanding population are studied and compared. Analysis of relevant issues of the day including those based on ethnic and cultural differences form an integral part of this course.

**GEOG 330 Introduction to Geographic Information Systems** 3 Units  
Advisory: CISC 300  
General Education: AA/AAS Area II(b)  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
A Geographic Information System (GIS) is a computer-based data processing tool used to manage and analyze spatial information. Applications of GIS include environmental assessment, analysis of natural hazards, site analysis for business and industry, resource management, and land-use planning. This course introduces the concepts, techniques, and tools of GIS including data acquisition, management, manipulation, and analysis, and cartographic output.

**GEOG 334 Introduction to GIS Software Applications** 3 Units  
Prerequisite: GEOG 330 with a grade of “C” or better  
Advisory: CISC 300  
Course Transferable to CSU  
Hours: 54 hours LEC; 12 hours LAB  
This course provides the conceptual and practical foundations for using Geographic Information Systems (GIS) software. Emphasis is placed on basic GIS software functionality, display and attribute querying functions, address geocoding, beginning spatial database construction, spatial analysis, cartographic presentation, and spatial data management. This course may be taken four times on a different software package or version.

**GEOG 340 Cartographic Design for GIS** 3 Units  
Prerequisite: GEOG 330 with a grade of “C” or better  
Advisory: CISC 300 (IBM Compatible Computers and Microsoft Windows)  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course provides a comprehensive study of GIS applicable cartography including cartographic principles. Data acquisition methods used in map production, and methods of base map development. The course will include the study of cartography to include history, principles, map projections, map scale, types of thematic maps, and map accuracy. Techniques used in GIS base map development (scanning, digitizing, and coordinate geometry) will be introduced using hands-on exercises. The course will include the production and presentation techniques of professional quality maps. The course will include hands-on work in computer-assisted mapping projects.
GEOG 342 Introduction to Remote Sensing and Digital Image Processing 3 Units
Course Transferable to CSU
Hours: 48 hours LEC; 18 hours LAB
This course introduces the principles and concepts of remote sensing and digital image processing as it relates to Geographic Information Systems (GIS). Fundamentals of remote sensing, aerial photography, satellite imagery, photogrammetry, Radio Detection and Ranging (RADAR) and Laser Incidence Detection and Ranging (LIDAR) are taught. A variety of digital image processing techniques are presented to analyze various remote sensing platforms.

GEOG 344 Spatial Analysis and Modeling in GIS 3 Units
Prerequisite: GEOG 330 with a grade of "C" or better.
Advisory: CISC 300 (IBM compatible Computers and Microsoft Windows); STAT 301.
Course Transferable to CSU
Hours: 54 hours LEC
This course provides a general survey of the fundamentals of spatial data analysis and a survey of quantitative techniques applicable to spatial data. This course is focused on the functionality of GIS as an effective tool for modeling and analyzing complex spatial relationships quantitative methods, to include measures of central tendency, dispersion, and density, are discussed. Applications of such methods will be presented using empirical data.

GEOG 350 Data Acquisition in GIS 3 Units
Corequisite: GEOG 330
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to the techniques, theory, and practical experience necessary to acquire, convert, and create digital data. Topics include acquisition of existing Geographic Information Systems (GIS) data, metadata, formatting and conversion of GIS data, creating data utilizing digital cameras and scanners, the utilization of remotely sensed data, and use of the Global Positioning System (GPS).

GEOG 354 Introduction to the Global Positioning System (GPS) 1 Unit
Advisory: GEOG 300 and 301.
Course Transferable to CSU
Hours: 18 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, GIS software, and real-world applications.

GEOG 360 Database Design and Management in GIS 3 Units
Prerequisite: CISA 320 and GEOG 330 with grades 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. The needs, alternatives, and pitfalls of spatial database development and conversion are discussed. In addition, this course examines various types of spatial data applicable to GIS, and relevant issues including hardware and software requirements. Particular attention is paid to determining an appropriate methodology, conversion plan, and data quality assurance procedure. This course includes hands-on practical exercises in spatial database management skills.

GEOG 362 Advanced Database Design and Management in GIS 3 Units
Prerequisite: GEOG 360 with a grade of "C" or better.
Advisory: CISA 320, CISA 321, and CISC 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course extends the concepts presented in GEOG 360. The advanced applications of organizing, inputting, and editing spatial data are examined and implemented, including topology, performance tuning, spatial service management, and data organization. Traditional spatial database topics are rigorously examined in a GIS context, including data integration, warehousing, complex SQL coding, metadata management, and multi-level security.

GEOG 375 Introduction to GIS Programming 3 Units
Prerequisite: CISP 372 and GEOG 330 with grades of "C" or better
Course Transferable to CSU
Hours: 50 hours LEC; 12 hours LAB
This course is an introduction to Geographic Information Systems (GIS) programming using Visual Basic for Applications (VBA) and ArcObjects. These tools allow the user to customize the graphical user interface of popular GIS applications, to automate GIS tasks, and to create new GIS functionality. This course may be taken up to four times on a different software package or version.

GEOG 376 Intermediate GIS Programming 3 Units
Prerequisite: GEOG 375 with a grade of "C" or better.
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course provides concepts and skills necessary to become a proficient GIS applications developer. It utilizes the Visual Basic for Applications (VBA) and Python scripting languages, in conjunction with ArcObjects, to develop complex GIS procedures and functions. Additionally, the course focuses on advanced methods for controlling feature display, querying, working with selection sets, creating dynamic layouts, editing tables, and performing geoprocessing operations. This course may be taken up to four times on a different software package or version.

GEOG 377 Introduction to Web Based GIS Application Development 3 Units
Prerequisite: GEOG 334 with a grade of "C" or better
Course Transferable to CSU
Hours: 50 hours LEC; 12 hours LAB
This course provides an overview of a full-featured, powerful Geographic Information Systems (GIS) software application (such as ArcGIS 9.x). GIS software is used to apply geoprocessing concepts to solve spatial problems. Emphasis is placed on the creation, modification, and analysis of spatial data; the creation of efficient maps; manipulation and interpretation of attribute data; and network analysis. This course may be taken four times on a different software package or version.

GEOG 380 Advanced GIS Software Applications 3 Units
Prerequisite: GEOG 334 with a grade of "C" or better
Course Transferable to CSU
Hours: 50 hours LEC; 12 hours LAB
This course provides an overview of a full-featured, powerful Geographic Information Systems (GIS) software application (such as ArcGIS 9.x). GIS software is used to apply geoprocessing concepts to solve spatial problems. Emphasis is placed on the creation, modification, and analysis of spatial data; the creation of efficient maps; manipulation and interpretation of attribute data; and network analysis. This course may be taken four times on a different software package or version.
GEOG 386  Using GIS for Disaster Management  3 Units
Prerequisite: GEOG 330 or 334 with a grade of "C" or better.
Course Transferable to CSU
Hours: 44 hours LEC; 30 hours LAB
This course provides an introduction to the use of GIS as a powerful tool in disaster management. Techniques and skills in the application of spatial information and analysis technologies to the problems of disaster and complex emergency management are investigated. GIS software and GPS technology are used to visualize, analyze, and represent spatial data in the protection of life, property, and critical infrastructure from natural disasters. Key GIS applications include natural hazard identification and mapping, multi-hazard analysis, shelter planning, mitigation, damage assessment, and recovery monitoring.

GEOG 390  Field Studies in Geography  .5-4 Units
Same As: GEOL 390
Course Transferable to CSU
Hours: 24 hours LEC; 144 hours LAB
This course involves field study of selected locations of geographic interest. Course content varies according to field trip destination but may include topics in physical geography (e.g., plant and animal communities, climate and weather, geology and geomorphology, natural hazards, environmental impacts, etc.), human geography (e.g., cultural landscapes, economic activities, transportation issues, land use patterns, etc.), and/or introduction to tools and techniques used for geographic field research (e.g., map and compass, the Global Positioning System (GPS), Geographic Information Systems (GIS), etc.). Field excursions are required and field trip expense fees may be required. This course may be taken 4 times using different field trip destinations.

GEOG 498  Work Experience in Geography  1-4 Units
General Education: AA/AS Area III(b)
Enrollment Limitation: Be in a paid or non-paid internship, volunteer opportunity, or job related to geography or Geographic Information Systems (GIS). Students are advised to consult with the Geography Department faculty to review specific certificate and degree work experience requirements.
Course Transferable to CSU
Hours: 18 hours LEC; 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment 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 required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Rigor is ensured through the development of appropriate level learning objectives set between the student and the employer. During the course of the semester, the student is required to fulfill a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. The weekly orientation is required for first time participants; returning participants are not required to attend the orientation but are required to meet with the instructor as needed to complete all program forms and assignments. GEOG 498 may be taken for a total of 16 units when there are new or expanded learning objectives. Students can earn a total of 16 Work Experience units.
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.

**GEOL 300  Physical Geology  3 Units**  
Advisory: MATH 100 and ENGRD 116, ENGW 51, or ESLW 310; or placement through the assessment process.  
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This in-depth course provides an understanding of the dynamic nature of the earth through the study of earth processes including plate tectonics, plate boundary events, and features of the ocean basins, earthquakes and the earth's interior, mineral and rock systems, ground water, development and destruction of landforms, glaciers, deserts and examples of environmental geology. One field trip experience is required. May be taken separately from the physical geology laboratory.

**GEOL 301  Physical Geology Laboratory  1 Unit**  
Corequisite: GEOL 300  
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course 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, analysis of geologic hazards, and field observations of the local geology.

**GEOL 305  Earth Science 3 Units**  
Advisory: MATH 32 and ENGRD 116, ENGW 51 or ESLW 310; or placement through assessment  
General Education: AA/AS 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, astronomy, scientific method and philosophy of science. A field trip may be required. This course is not designed for science and/or geology majors. This course may not be taken with GEOL 301 (Physical Geology Laboratory).

**GEOL 306  Earth Science Laboratory  1 Unit**  
Corequisite: GEOL 305  
General Education: CSU Area B3; IGETC Area 5A  
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 geologic concepts by means of topographic and geologic maps, and exercises in astronomy and oceanography. This course is not available for credit to students who have completed GEOL 300 or GEOL 301.

**GEOL 310  Historical Geology  3 Units**  
Advisory: GEOL 300  
General Education: AA/AS 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 changing of land and sea and by the succession of fauna and flora. Stratigraphic and other techniques for interpreting the sequence of past geological events are studied.

**GEOL 311  Historical Geology Laboratory  1 Unit**  
Corequisite: GEOL 310  
General Education: CSU Area B3; IGETC Area 5A  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course is a laboratory study in historical geology. Principles of physical geology and paleontology are applied in the reconstruction of the history of the earth. Exercises in stratigraphy, paleontology and interpretation of geologic maps will be utilized.

**GEOL 325  Environmental Hazards and Natural Disasters  3 Units**  
Same As: GEOG 307  
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, and flooding. 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. The course addresses geology, engineering, environmental studies, natural resources, geography, and science education. One field trip is required. Not open to students who have completed GEOG 307.

**GEOL 330  Introduction to Oceanography  3 Units**  
Same As: GEOG 308  
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 water on earth emphasizing physical oceanography. Topics include ocean and shoreline processes, plate tectonics, sea floor morphology, types and distribution of seafloor sediment, ocean sediment transport, ocean chemistry, ocean currents, marine resources, and environmental concerns. 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 GEOL 330; GEOL 330 or GEOG 308
Advisory: GEOG 301 or GEOL 301
General Education: CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is a laboratory investigation of water on Earth, emphasizing the shape of the sea floor, marine navigation, plate tectonics, sea floor materials and their utilization, the spatial distribution of ocean sediment, the physical and chemical nature of sea water, currents, tides, and marine weather. This course is not open to students who have completed GEOG 309.

GEOL 342  Geology of the National Parks  3 Units
Advisory: GEOL 300 and 301
General Education: AA/AS Area IV; CSU Area B1
Course Transferable to CSU
Hours: 54 hours LEC
The course is designed to introduce Earth's geologic story as revealed by the rocks and landscapes in our National Parks. Attention will focus on how natural earth processes have formed our National Parks and National Monuments. Surface shaping processes such as volcanism, plutonism, deformation, sedimentation, glaciation, and fluvial activity will be studied as displayed in our western parks and monuments. One field trip is required.

GEOL 345  Geology of California  3 Units
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. This course is recommended for non-majors and majors in geology and is of particular value to science, engineering, environmental studies, education, and economics majors. One field trip is required.

GEOL 390  Field Studies in Geology  .5-4 Units
Same As: GEOG 390
Course Transferable to CSU
Hours: 24 hours LEC; 144 hours LAB
This course involves field trips to 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 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. This course may be taken 4 times using different field trip destinations.
The Gerontology program at American River College offers continuing education courses for RNs, LVNs, CNAs, RCCE administrators, MFTs, 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 is co-host for the Alzheimer’s Aid Society annual conference. This leadership has enriched its offerings and enhanced the career value of an ARC gerontology degree or certificate.

### Gerontology Degrees/Certificates (Core Requirements)

#### Core Requirements for Degree or Certificate 30 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUS 310</td>
<td>Business Communications (3)</td>
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<tr>
<td>or ENGWR 103</td>
<td>Practical Communication (3)</td>
<td></td>
</tr>
<tr>
<td>or ENGWR 300</td>
<td>College Composition (3)</td>
<td></td>
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<tr>
<td>GERON 300</td>
<td>Sociology of Aging (3)</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 335</td>
<td>Sociology of Aging (3)</td>
<td></td>
</tr>
<tr>
<td>GERON 302</td>
<td>Psychology of Aging: Adult Development and Aging (3)</td>
<td></td>
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<tr>
<td>or PSYC 374</td>
<td>Psychology of Aging: Adult Development and Aging (3)</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 330</td>
<td>Techniques for Communicating with and Validating Older Adults</td>
<td>3</td>
</tr>
<tr>
<td>GERON 334</td>
<td>Reminiscence Therapy (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 379</td>
<td>Reminiscence Therapy (3)</td>
<td></td>
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<tr>
<td>GERON 335</td>
<td>Wellness for Older Adults</td>
<td>3</td>
</tr>
<tr>
<td>GERON 340</td>
<td>Nutrition for Healthy Aging (3)</td>
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<td>or NUTRI 324</td>
<td>Nutrition for Healthy Aging (3)</td>
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<tr>
<td>GERON 360</td>
<td>Ethnic Diversity and Aging</td>
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<tr>
<td>GERON 362</td>
<td>Biology of Aging</td>
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<tr>
<td>GERON 366</td>
<td>Coping with Death and Related Bereavement</td>
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<td>GERON 368</td>
<td>Mental Health and Aging</td>
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<tr>
<td>And a minimum of 6 units from the following:</td>
<td>6</td>
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<tr>
<td>GERON 490</td>
<td>Practices in Gerontology (3)</td>
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</table>

### Gerontology: Business Degree

The Gerontology: Business 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. The focus is 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.

### Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing goods and services to senior adults.

### Gerontology: Business Degree Requirements 39 Units

<table>
<thead>
<tr>
<th>Core Requirements</th>
<th>30</th>
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<tbody>
<tr>
<td>And a minimum of 9 units from the following:</td>
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<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>
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<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
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</tr>
<tr>
<td>BUS 105</td>
<td>Business Mathematics (3)</td>
<td></td>
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<tr>
<td>or BUS 110</td>
<td>Business Economics (3)</td>
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<tr>
<td>BUS 320</td>
<td>Concepts in Personal Finance (3)</td>
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<tr>
<td>or ECON 320</td>
<td>Concepts in Personal Finance (3)</td>
<td></td>
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<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace (3)</td>
<td></td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law (3)</td>
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</tr>
<tr>
<td>GERON 304</td>
<td>Ethical Issues and Client’s Rights (3)</td>
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</tr>
<tr>
<td>or HSER 310</td>
<td>Ethical Issues and Client’s Rights (3)</td>
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<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management (3)</td>
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<tr>
<td>or MGMT 362</td>
<td>Techniques of Management (3)</td>
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</tr>
<tr>
<td>MGMT 304</td>
<td>Introduction to Management Functions (3)</td>
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</tr>
</tbody>
</table>

### Gerontology: Case Management/Social Services Degree

The Gerontology: Case Management/Social Services 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. The focus is 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.

### Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing case management and/or social services to senior adults.

### Case Management/Social Services Degree Requirements 39 Units

<table>
<thead>
<tr>
<th>Core Requirements</th>
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</thead>
<tbody>
<tr>
<td>And a minimum of 9 units from the following:</td>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GERON 310</td>
<td>Social Service Designee: Role and Responsibility (2.5)</td>
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<tr>
<td>GERON 312</td>
<td>Social Services Designee: Fieldwork (1)</td>
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<tr>
<td>HSER 300</td>
<td>Introduction to Human Services (3)</td>
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<tr>
<td>HSER 310</td>
<td>Ethical Issues and Client’s Rights (3)</td>
<td></td>
</tr>
<tr>
<td>or GERON 304</td>
<td>Ethical Issues and Client’s Rights (3)</td>
<td></td>
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<tr>
<td>HSER 330</td>
<td>Issues of Diverse Populations (3)</td>
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<tr>
<td>or PSYC 365</td>
<td>Issues of Diverse Populations (3)</td>
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<tr>
<td>HSER 340</td>
<td>Introduction to Chemical Dependency (3)</td>
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<tr>
<td>or PSYC 400</td>
<td>Introduction to Chemical Dependency (3)</td>
<td></td>
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<tr>
<td>PSYC 390</td>
<td>Psychology of Death and Dying (3)</td>
<td></td>
</tr>
</tbody>
</table>
Gerontology: Environmental Design Degree

The Gerontology: Environmental Design degree 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. The focus is on preparation for entry-level positions with private industry, government, and non-profit agencies providing design services to senior adults and/or preparation for further gerontology/design study at a four-year college or university.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing design services to senior adults

Gerontology: Environmental Design Degree Requirements 39 Units

Core Requirements ................................................................. 30
And a minimum of 9 units from the following: ......................... 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
<td>(3)</td>
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<tr>
<td>IDES 330</td>
<td>Fundamentals of Interior Design</td>
<td>(3)</td>
</tr>
<tr>
<td>IDES 330</td>
<td>Beginning Interior Design Studio</td>
<td>(3)</td>
</tr>
<tr>
<td>IDES 334</td>
<td>Interior Environment and Space Planning</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Prerequisite is required for IDES 334

Gerontology: Health Care Degree

The Gerontology: Health Care degree 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. The focus is 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.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing health services to senior adults

Gerontology: Health Care Degree Requirements 39 Units

Core Requirements ................................................................. 30
And a minimum of 9 units from the following: ......................... 9

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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<tbody>
<tr>
<td>BIOL 102</td>
<td>Introduction to Concepts of Human Anatomy</td>
<td>(4)</td>
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<tr>
<td>or BIOL 115</td>
<td>Basic Anatomy and Physiology</td>
<td>(3)</td>
</tr>
<tr>
<td>GERON 304</td>
<td>Medical Language for Health Care Providers</td>
<td>(3)</td>
</tr>
<tr>
<td>GERON 350</td>
<td>Physical Therapy Aide</td>
<td>(3)</td>
</tr>
<tr>
<td>or NURSE 360</td>
<td>Physical Therapy Aide</td>
<td>(3)</td>
</tr>
<tr>
<td>NURSE 101</td>
<td>Nurse Assistant</td>
<td>(6)</td>
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<tr>
<td>PET 312</td>
<td>Laboratory in Adapted Physical Education</td>
<td>(3)</td>
</tr>
<tr>
<td>PET 313</td>
<td>Laboratory in Adapted Physical Education</td>
<td>(1 - 2)</td>
</tr>
<tr>
<td>PSYC 390</td>
<td>Psychology of Death and Dying</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Prerequisite required for NURSE 101.

Gerontology: Recreation Degree

The Gerontology: Recreation 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. The focus is 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.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing recreational services to senior adults

Gerontology: Recreation Degree Requirements 39 Units

Core Requirements ................................................................. 30
And a minimum of 9 units from the following: ......................... 9

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>GERON 430</td>
<td>Introduction to Activity Coordinator</td>
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<tr>
<td>GERON 432</td>
<td>Interviewing and Counseling Techniques</td>
<td>(0.5)</td>
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<tr>
<td>GERON 434</td>
<td>Hearing and Speech - Age Changes</td>
<td>(0.5)</td>
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<tr>
<td>GERON 436</td>
<td>Documentation: State and Federal Regulations Part I</td>
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<tr>
<td>GERON 438</td>
<td>Documentation: State and Federal Regulations Part II</td>
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<tr>
<td>GERON 440</td>
<td>Etiology of Illness in Later Life</td>
<td>(0.5)</td>
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<tr>
<td>GERON 442</td>
<td>Social and Psychological Forces of Aging</td>
<td>(0.5)</td>
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<tr>
<td>GERON 444</td>
<td>Dementia: Behaviors and Activity</td>
<td>(0.5)</td>
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<tr>
<td>GERON 446</td>
<td>Effective Leadership Skills</td>
<td>(0.5)</td>
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<td>GERON 448</td>
<td>Community Agencies and Resources</td>
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<td>GERM 450</td>
<td>Needs-Based Programming</td>
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<td>GERON 452</td>
<td>Creating an Activity Program</td>
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<td>GERON 454</td>
<td>Directed Fieldwork Experience</td>
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<td>PET 312</td>
<td>Theory and Techniques of Adapted Physical Education</td>
<td>(3)</td>
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<td>PET 313</td>
<td>Laboratory in Adapted Physical Education</td>
<td>(1 - 2)</td>
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<tr>
<td>RECR 300</td>
<td>Introduction to Recreation and Leisure</td>
<td>(3)</td>
</tr>
<tr>
<td>RECR 310</td>
<td>Outdoor Recreation</td>
<td>(3)</td>
</tr>
<tr>
<td>RECR 320</td>
<td>Recreation Activity Leadership</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Gerontology: Social Policy/Advocacy Degree

The Gerontology: Social Policy/Advocacy 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. The focus is 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.

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 39 Units

Core Requirements ................................................................. 30
And a minimum of 9 units from the following: ......................... 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 304</td>
<td>Ethical Issues and Client’s Rights</td>
<td>(3)</td>
</tr>
<tr>
<td>or HSER 310</td>
<td>Ethical Issues and Client’s Rights</td>
<td>(3)</td>
</tr>
<tr>
<td>MGMT 362</td>
<td>Techniques of Management</td>
<td>(3)</td>
</tr>
<tr>
<td>POLS 304</td>
<td>Introduction to Government: California</td>
<td>(3)</td>
</tr>
<tr>
<td>SPEECH 301</td>
<td>Public Speaking</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Gerontology: Social Policy Concentration Requirements 39 Units

Core Requirements ................................................................. 30
And a minimum of 9 units from the following: ......................... 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 304</td>
<td>Ethical Issues and Client’s Rights</td>
<td>(3)</td>
</tr>
<tr>
<td>or HSER 310</td>
<td>Ethical Issues and Client’s Rights</td>
<td>(3)</td>
</tr>
<tr>
<td>POLS 304</td>
<td>Introduction to Government: United States</td>
<td>(3)</td>
</tr>
<tr>
<td>HSER 330</td>
<td>Issues of Diverse Populations</td>
<td>(3)</td>
</tr>
<tr>
<td>or PSYC 365</td>
<td>Issues of Diverse Populations</td>
<td>(3)</td>
</tr>
<tr>
<td>SPEECH 301</td>
<td>Public Speaking</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Associate Degree Requirements: The Gerontology: Associate in Arts (A.A.) Degree (in the chosen concentration) 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

The Gerontology: Business 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. The focus is on preparation for entry-level positions with private industry, government and non-profit agencies providing goods and services to senior adults.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing goods and services to senior adults.

Gerontology: Business Certificate 39 Units

Core Requirements .................................................................................................................. 30
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 Modern Management (3)
or MGMT 362 Techniques of Management (3)
MGMT 304 Introduction to Management Functions (3)

Gerontology: Case Management/Social Services Certificate

The Gerontology: Case Management/Social Services 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. The focus is on preparation for entry-level positions with private industry, government and non-profit agencies providing case management and/or social services to senior adults.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing case management and/or social services to senior adults.

Gerontology: Case Management/Social Services Certificate 39 Units

Core Requirements .................................................................................................................. 30
And a minimum of 9 units from the following: ................................................................. 9
GERON 310 Social Service Designee: Role and Responsibility (2.5)
GERON 312 Social Services Designee: Fieldwork (1)
HSER 300 Introduction to Human Services (3)
HSER 310 Ethical Issues and Client’s Rights (3)
or GERON 304 Ethical Issues and Client’s Rights (3)
HSER 330 Issues of Diverse Populations (3)
or PSYC 365 Issues of Diverse Populations (3)
HSER 340 Introduction to Chemical Dependency (3)
or PSYC 400 Introduction to Chemical Dependency (3)
PSYC 390 Psychology of Death and Dying (3)

Gerontology: Environmental Design Certificate

The Gerontology: Environmental Design 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. The focus is on preparation for entry-level positions with private industry, government and non-profit agencies providing design services to senior adults.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing environmental design services to senior adults.

Gerontology: Environmental Design Certificate 39 Units

Core Requirements .................................................................................................................. 30
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 required for IDES 334

Gerontology: Health Care Certificate

The Gerontology: Health Care 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. The focus is on preparation for entry-level positions with private industry, government and non-profit agencies providing health services to senior adults.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing health services to senior adults.

Gerontology: Health Care Certificate 39 Units

Core Requirements .................................................................................................................. 30
And a minimum of 9 units from the following: ................................................................. 9
AH 110 Medical Language for Health-Care Providers (3)
BIOL 102 Introduction to Concepts of Human Anatomy and Physiology (4)
Bi or BIOL 115 Basic Anatomy and Physiology (3)
GERON 304 Ethical Issues and Client’s Rights (3)
or HSER 310 Ethical Issues and Client’s Rights (3)
GERON 350 Physical Therapy Aide (3)
or NURSE 360 Physical Therapy Aide (3)
NURSE 100 Nurse Assistant (6)
NURSE 101 Home Health Aide (2)
PET 312 Theory and Techniques of Adapted Physical Education (3)
PET 313 Laboratory in Adapted Physical Education (1 - 2)
PSYC 390 Psychology of Death and Dying (3)
Prerequisite required for NURSE 101.

Gerontology: Recreation Certificate

The Gerontology: Recreation 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. The focus is on preparation for entry-level positions with private industry, government and non-profit agencies providing recreational services to senior adults.

Gerontology: Recreation Certificate 39 Units
## Gerontology: Social Policy/Advocacy Certificate

The Gerontology: Social Policy/Advocacy 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. The focus is on preparation for entry-level positions with private industry, government and non-profit agencies providing input to social policy and advocacy for senior adults.

### Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing input to social policy and advocacy for senior adults.

### Gerontology: Social Policy/Advocacy Concentration Certificate 39 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 310</td>
<td>Social Service Designee: Fieldwork</td>
<td>2</td>
</tr>
<tr>
<td>GERON 311</td>
<td>Social Service Designee: Legal Issues and End-of-Life Decisions</td>
<td>1</td>
</tr>
<tr>
<td>GERON 312</td>
<td>Social Service Designee: Role and Responsibility</td>
<td>2.5</td>
</tr>
</tbody>
</table>

### Program Assistant

The Program Assistant certificate provides a comprehensive overview of the role and duties of a program assistant in adult day care, adult day health care and residential care.

### Career Opportunities

Program Assistant in adult day care, adult day health care and residential care facilities.

### Requirements for Certificate 2 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 320</td>
<td>Program Assistant</td>
<td>2</td>
</tr>
</tbody>
</table>

## Gerontology: Social Policy Concentration Certificate 39 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GERON 304</td>
<td>Ethical Issues and Client’s Rights</td>
<td>3</td>
</tr>
<tr>
<td>or HSER 310</td>
<td>Ethical Issues and Client’s Rights</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 362</td>
<td>Techniques of Management</td>
<td>3</td>
</tr>
<tr>
<td>POLS 304</td>
<td>Introduction to Government: California</td>
<td>3</td>
</tr>
<tr>
<td>SPEECH 301</td>
<td>Public Speaking</td>
<td>3</td>
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</tbody>
</table>

## Gerontology: Recreation Certificate 39 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 330</td>
<td>Introduction to Activity Coordinator</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 332</td>
<td>Interviewing and Counseling Techniques with Elderly</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 334</td>
<td>Hearing and Speech - Age Changes</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 336</td>
<td>Documentation: State and Federal Regulations Part I</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 338</td>
<td>Documentation: State and Federal Regulations Part II</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 340</td>
<td>Etiology of Illness in Later Life</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 342</td>
<td>Social and Psychological Forces of Aging</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 344</td>
<td>Dementia: Behaviors and Activity</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 346</td>
<td>Effective Leadership Skills</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 348</td>
<td>Community Agencies and Resources</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 350</td>
<td>Needs-Based Programming</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 352</td>
<td>Creating an Activity Program</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 354</td>
<td>Directed Fieldwork Experience</td>
<td>0.5</td>
</tr>
<tr>
<td>PET 312</td>
<td>Theory and Techniques of Adapted Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PET 313</td>
<td>Laboratory in Adapted Physical Education</td>
<td>1 - 2</td>
</tr>
<tr>
<td>RECR 300</td>
<td>Introduction to Recreation and Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td>RECR 310</td>
<td>Outdoor Recreation</td>
<td>3</td>
</tr>
<tr>
<td>RECR 320</td>
<td>Recreation Activity Leadership</td>
<td>3</td>
</tr>
</tbody>
</table>

## Activity Coordinator Certificate

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

### Career Opportunities

Activity Coordinator in long-term care, assisted living, and retirement facilities.

### Requirements for Certificate 6.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 430</td>
<td>Introduction to Activity Coordinator</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 432</td>
<td>Interviewing and Counseling Techniques with Elderly</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 434</td>
<td>Hearing and Speech - Age Changes</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 436</td>
<td>Documentation: State and Federal Regulations Part I</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 438</td>
<td>Documentation: State and Federal Regulations Part II</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 440</td>
<td>Etiology of Illness in Later Life</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 442</td>
<td>Social and Psychological Forces of Aging</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 444</td>
<td>Dementia: Behaviors and Activity</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 446</td>
<td>Effective Leadership Skills</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 448</td>
<td>Community Agencies and Resources</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 450</td>
<td>Needs-Based Programming</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 452</td>
<td>Creating an Activity Program</td>
<td>0.5</td>
</tr>
<tr>
<td>GERON 454</td>
<td>Directed Fieldwork Experience</td>
<td>0.5</td>
</tr>
</tbody>
</table>

## Program Assistant

The Program Assistant certificate provides a comprehensive overview of the role and duties of a program assistant in adult day care, adult day health care and residential care.

### Career Opportunities

Program Assistant in adult day care, adult day health care and residential care facilities.

### Requirements for Certificate 2 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 320</td>
<td>Program Assistant</td>
<td>2</td>
</tr>
</tbody>
</table>

## 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.

### Career Opportunities

Social Services Designee in long-term care, assisted living, and retirement facilities.

### Requirements for Certificate 4.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 310</td>
<td>Social Service Designee: Role and Responsibility</td>
<td>2.5</td>
</tr>
<tr>
<td>GERON 311</td>
<td>Social Service Designee: Legal Issues and End-of-Life Decisions</td>
<td>1</td>
</tr>
<tr>
<td>GERON 312</td>
<td>Social Service Designee: Fieldwork</td>
<td>1</td>
</tr>
</tbody>
</table>
**GERON 300  Sociology of Aging  3 Units**  
Same As: SOC 335  
Advisory: ENGRD 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESSLW 320 with a grade of "C" or better; OR placement through assessment process.  
General Education: AAAS Area II(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, social class/cultural differences. 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: ENGRD 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESSLW 320 with a grade of "C" or better; OR placement through assessment process.  
General Education: AAAS Area V(b); CSU Area E1  
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. 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 310  
Advisory: ENGRD 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESSLW 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. Not open to students who have completed HSER 310.

**GERON 310  Social Service Designee: Role and Responsibility  2.5 Units**  
Advisory: ENGRD 102 or ENGRD 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESSLW 320 with a grade of "C" or better; OR placement through assessment process.  
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: ENGRD 102 or ENGRD 103, and ENGRD 116 or ESSLW 320, ESLR 320 or placement through assessment process.  
Course Transferable to CSU  
Hours: 18 hours LEC  
This course covers legal issues involved with long-term care. The focus is on probate, wills, trusts, power of attorney, conservatorship, consent, and right-to-die issues.

**GERON 312  Social Services Designee: Fieldwork  1 Unit**  
Prerequisite: GERON 310, 311.  
Advisory: ENGRD 102 or ENGRD 103, and ENGRD 116 or ESSLW 320, ESLR 320 or placement through assessment process.  
Course Transferable to CSU  
Hours: 9 hours LEC, 27 hours LAB  
This course provides supervised fieldwork in the role of social services designee in long-term care facility.

**GERON 320  Program Assistant  2 Units**  
Course Transferable to CSU  
Hours: 36 hours LEC  
This course provides the training necessary to become a program assistant in adult day care, adult day health care and residential care. Topics include organization and populations of adult day care, personal care, services, communication, responsibilities, ethics, safety, and dementia. Certificate will be issued upon successful completion of course.

**GERON 330  Communicating with and Validating Older Adults  3 Units**  
Same As: PSYC 378  
Advisory: ENGRD 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESSLW 320 with a grade of "C" or better; OR placement through assessment process.  
General Education: AAAS Area III(b)  
Enrollment Limitation: Current tuberculosis clearance  
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. This class is held off campus in a long-term care setting. For internet modality, supervision by an activity professional in a long-term care setting is required. It is not open to students who have completed PSYC 378.

**GERON 334  Reminiscence Therapy  3 Units**  
Same As: PSYC 379  
Advisory: ENGRD 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESSLW 320 with a grade of "C" or better; OR placement through assessment process.  
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. Off-campus supervision by an activity professional in a long-term care setting is required for internet modality. It is not open to students who have completed PSYC 379.

**GERON 335  Wellness for Older Adults  3 Units**  
Advisory: ENGRD 102 or ENGRD 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESSLW 320 with a grade of "C" or better; OR placement through assessment process.  
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 .5 Units
Same As: NUTRI 324
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an introduction to nutritional concerns as they apply to the elderly, their implications in the aging process, and the environmental, economic and culture factors affecting nutritional status. This course is not open to students who have completed NUTRI 324.

GERON 350 Physical Therapy Aide .5 Units
Same As: NURSE 360
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
Course Transferable to CSU
Hours: 44 hours LEC
This course is designed to prepare students in the responsibilities of Physical Therapy Aides and to provide a general introduction to the physical therapy field. Basic skills of range of motion exercise, positioning, transfers, and ambulation with assistive devices are covered through lecture and hands-on experiences. This course presents basic anatomy, terminology, and medical issues associated with the field of physical therapy. Not open to students who have completed NURSE 360.

GERON 360 Ethnic Diversity and Aging .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of ethnicity as a factor in the aging process. Emphasis is on values, beliefs and culture, and their impact on the design and delivery of senior services. Credit/No Credit 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. It focuses on chronic and acute illnesses, normal aging changes, sexuality, nutrition, and strategies for good health. Credit/No Credit only.

GERON 366 Coping with Death and Related Bereavement .5 Units
Course Transferable to CSU
Hours: 9 hours LEC
This course is an exploration of our societal and personal views of death, dying, and bereavement with the focus on ways in which our Western society treats the subject of death. Topics include right-to-die issues and the theoretical stages of death and bereavement. Credit/No Credit 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. Credit/No Credit only.

GERON 370 Interviewing and Counseling Techniques with Elderly .5 Units
Advisory: ENGWR 102 or 103, and ENGRD 116 OR ESLR 320, ESLW 320 or placement through assessment process.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of basic counseling and interviewing techniques when working with older adults. The focus is on communication skills, interviewing techniques, and specific therapeutic approaches to working with impaired older persons. Credit/No Credit only.

GERON 372 Alzheimer’s Workshop .5 Units
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320, ESLW 320 or placement through assessment process.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of current information on all aspects of dementia and caregiving issues, focusing on research, legal issues, grief, resources, medication, behavior management and activities. Credit/No Credit only.

GERON 378 Body Mechanics and Safety .5 Units
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320, ESLW 320 or placement through assessment process.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of body mechanics emphasizing a problemsolving approach and focusing on basic methods and techniques of positioning, transfer, and ambulation, as well as personal safety, adaptive exercise and assistive devices. Credit/No Credit only.

GERON 380 Nutrition and Aging .5 Units
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320, ESLW 320 or placement through assessment process.
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 and food recipes will be included. Information regarding environmental factors implicated in the aging process will be discussed. Credit/No Credit only.

GERON 390 Introduction to Activity Coordinator .5 Units
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 OR ESLR 320, ESLW 320 or placement through assessment process.
Course Transferable to CSU
Hours: 9 hours LEC
This course introduces the role and responsibilities of an Activity Coordinator in long-term care facilities. Topics include program planning, utilizing volunteers, budgeting, and working as a team. Credit/No Credit only.

GERON 382 Mental Health and Aging .5 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; OR placement through assessment process.
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. Credit/No Credit only.
GERON 436  **Documentation: State and Federal Regulations Part I**  .5 Units
Corequisite: GERON 434.
Advisory: ENGWR 102 or 103, and ENGRD 116 OR ESLR 320 and ESLW 320.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of Title 22 regulations and required documentation as it relates to activity coordinators. Topics include activity assessments, social histories, monthly updates, care plans, and quarterly reviews. Credit/No Credit only.

GERON 438  **Documentation: State and Federal Regulations Part II**  .5 Units
Corequisite: GERON 440.
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320 and ESLW 320.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of state and federal regulations governing activity coordinators in a health care facility and the necessary documentation required to comply with these regulations. Credit/No Credit only.

GERON 440  **Etiology of Illness in Later Life**  .5 Units
Corequisite: GERON 436.
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320 and ESLW 320.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of the etiology of major illnesses found in the aging population, focusing on indications and contraindications for activities. Credit/No Credit only.

GERON 442  **Social and Psychological Forces of Aging**  .5 Units
Corequisite: GERON 438.
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320 and ESLW 320.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of basic psychological and social forces affecting an individual upon entering long-term care. Topics include depression, role loss, myths, and potential benefits and problems of working with families. Credit/No Credit only.

GERON 444  **Dementia: Behaviors and Activity**  .5 Units
Corequisite: GERON 442.
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320 and ESLW 320.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of dementia and memory loss. Topics will focus on types, characteristics, communications, behavior management, and caregiving of dementia patients. Credit/No Credit only.

GERON 446  **Effective Leadership Skills**  .5 Units
Corequisite: GERON 444.
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320 and ESLW 320.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of the fundamentals of leadership for the activity coordinator. Strategies for information processing, problem solving, and decision making will be included. Credit/No Credit only.

GERON 448  **Community Agencies and Resources**  .5 Units
Corequisite: GERON 450.
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320 AND ESLW 320.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of community resources and how to use them within the health care facility. Credit/No Credit only.

GERON 450  **Needs-Based Programming**  .5 Units
Corequisite: GERON 442.
Advisory: ENGWR 102 or ENGWR 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: 9 hours LEC
This course is an overview of the importance of needs-based activity planning and its impact on the individual in long-term care. The focus is on developing a specific activity designed to meet a specific patient’s needs. Credit/No Credit only.

GERON 452  **Creating an Activity Program**  .5 Units
Corequisite: GERON 448.
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an overview of the development of an activity program for seniors in long-term care facilities. Focus is on developing programs to meet the needs of those with differing physical and cognitive abilities, different genders, and different cultural backgrounds. Credit/No Credit only.

GERON 454  **Directed Fieldwork Experience**  .5 Units
Corequisite: GERON 448.
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320 AND ESLW 320.
Course Transferable to CSU
Hours: 3 hours LEC; 18 hours LAB
This course is an opportunity for the student to acquire practical experience working with an activity coordinator in a health care setting. Credit/No Credit only.

GERON 490  **Practices in Gerontology**  3 Units
Corequisite: GERON 300 or 302.
Course Transferable to CSU
Hours: 18 hours LEC, 108 hours LAB
This course provides advanced study and supervised field experience in public and/or private agencies, businesses or organizations providing services to seniors and senior programs. Students apply concepts, values and skills acquired in other core courses to the process of working with the senior population. Students also develop a resource file of senior services and define areas of interest for employment in senior services. Different cases are discussed each semester. This course may be taken two times for credit.

GERON 498  **Work Experience in Gerontology**  1-4 Units
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320, ESLW 320 or placement through assessment process.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 16 hours LEC, 225 hours LAB
This course provides supervised practical experience working with the elderly through placement in nursing facilities, day care, respite care, and community agencies. Placement is arranged by the instructor. May be taken more than once for credit for a maximum of six (6) units.
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours: 9 hours LEC</th>
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<td>GERON 1000</td>
<td>Home Adaptations for Safety and Independence</td>
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<td>This course explores adaptations to the home</td>
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<td>environment to promote safety and independence</td>
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<td>for those with disabilities. Topics include</td>
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<td>assessment, durable equipment, home modifications</td>
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<td>and resources. Credit/No Credit only.</td>
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<td>GERON 1003</td>
<td>Intergenerational Family Dynamics</td>
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<td>This course focuses on changing dynamics in the</td>
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<td>family as members are confronted with their own</td>
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<td>developmental stages and issues related to the</td>
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<td>aging process. A family systems theory approach</td>
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<td>is used to examine and analyze communication</td>
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<td>patterns, areas of conflict and coping</td>
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<td>strategies in the family. Credit/No Credit only</td>
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<td>GERON 1004</td>
<td>Pharmacology and Aging</td>
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<td>This course is an overview of drugs commonly</td>
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<td>prescribed for the elderly. It also examines</td>
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<td>how the aging process impacts medication</td>
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<td>effects, compliance, and adverse reactions.</td>
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<td>Drug therapy and interactions are also covered.</td>
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<td>GERON 1006</td>
<td>Parkinson's Disease and Other Movement Disorders</td>
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<td>This course explores the current knowledge of</td>
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<td>Parkinson's Disease and other movement disorders</td>
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<td>Topics include medical treatments and coping</td>
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<td>mechanisms. Credit/No Credit only.</td>
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<td>GERON 1008</td>
<td>Validation: Theory and Practice</td>
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<td>This course presents Validation theory as a</td>
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<td>communication technique used with individuals</td>
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<td>with differing levels of cognitive ability.</td>
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<td>Criteria for evaluating stages of dementia and</td>
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<td>the selection of appropriate techniques are</td>
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<td>GERON 1010</td>
<td>Understanding Licensed Residential Care</td>
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<td>This course is an introduction to residential</td>
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<td>care and the role of regulators. Topics include</td>
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<td>regulatory function and perspective, function</td>
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<td>Division, and rights and responsibilities of</td>
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<td>licensees. Credit/No Credit only.</td>
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<td>GERON 1011</td>
<td>Aging Experience in Asian Families</td>
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<td>This course examines the aging experience unique</td>
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<td>to Asian families. The impact of culture,</td>
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<td>societal expectations and their effect on family</td>
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<td>roles, values and beliefs and how these affect</td>
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<td>care giving is discussed. Focus is on strategies</td>
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<td>for dealing with stress and social support</td>
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<td>services for Asian families. Credit/No Credit</td>
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<td>GERON 1013</td>
<td>Protecting Your Back</td>
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<td>This course examines proper spine care and body</td>
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<td>mechanics. Proper exercises to prevent or</td>
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<td>minimize back injuries are demonstrated.</td>
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<td>GERON 1014</td>
<td>Aging and Long-term Care</td>
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<td>This course provides a broad knowledge of</td>
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<td>gerontology and long-term care. It covers</td>
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<td>biological and psychosocial changes of age,</td>
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<td>dilemmas facing caregivers and care receivers,</td>
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<td>and decision making when an individual needs</td>
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<td>long-term care. Credit/No Credit only.</td>
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<td>GERON 1015</td>
<td>Diabetes and Aging</td>
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<td>This course examines the causes and risk factors</td>
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<td>associated with diabetes, focusing on how the</td>
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<td>aging body influences these risk factors and</td>
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<td>the course of the disease. Recommendations</td>
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<td>for lifestyle changes that can reduce risks and</td>
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<td>complications associated with diabetes are</td>
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<td>also presented. Credit/No Credit only.</td>
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<td>GERON 1016</td>
<td>Issues in Gerontology as Seen through Film</td>
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<td>This course examines certain aspects of the</td>
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<td>aging experience and how the media influences</td>
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<td>society's perception of age by viewing selected</td>
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<td>excerpts from films dealing with aging issues.</td>
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<td>Topics include developmental and cultural</td>
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<td>perspectives, relationships, sexuality, and life</td>
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<td>review. Credit/No Credit only.</td>
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<td>GERON 1017</td>
<td>Heart Health and Aging</td>
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<td>This course examines the causes and risk factors</td>
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<td>associated with cardiovascular disease, focusing</td>
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<td>on how the aging body influences these risk</td>
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<td>factors and the course of the heart disease and</td>
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<td>stroke. In addition, recommendations for lifestyle</td>
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<td>changes that can reduce risks and complications</td>
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<td>associated with cardiovascular disease are</td>
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<td>GERON 1018</td>
<td>Social Security--Past, Present, and Future</td>
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<td>This course examines the Social Security,</td>
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<td>Medicare, and Supplemental Security Income (SSI)</td>
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<td>programs from before their inceptions</td>
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<td>through today's current controversies. Topics</td>
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<td>include population demographics and their impact</td>
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<td>on social programs and historical</td>
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<td>overviews of program development. Credit/No</td>
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<td>GERON 1020</td>
<td>Demographic Changes and the Effect on Caregiving</td>
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<td>This course examines issues surrounding the</td>
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<td>current “Age Wave” in relationship to the</td>
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<td>historical views of the elderly, ageism,</td>
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<td>stereotypes and myths, and how these issues</td>
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<td>affect caregiving. The implications that an</td>
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<td>aging society has on health care delivery</td>
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<td>including acute, sub-acute, and community based</td>
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<td>services are discussed. Credit/No Credit only.</td>
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<td>GERON 1021</td>
<td>Elder Abuse</td>
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<td>This course is an overview of elder abuse. It</td>
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<td>focuses on occurrence, prevention</td>
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<td>strategies, and resources to prevent elder</td>
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<td>abuse. Credit/No Credit only.</td>
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<td>GERON 1022</td>
<td>Aging and Family Dynamics</td>
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<td>This course is an overview of how the aging</td>
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<td>process affects not only individuals, but also</td>
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<td>families and relationships. The focus is on</td>
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<td>changing roles and the relationship strategies</td>
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<td>for negotiating these transitions to help</td>
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<td>families resolve aging issues. Credit/No Credit</td>
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<td>GERON 1023</td>
<td>Interpersonal Relationships</td>
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<td>This course covers listening and communication</td>
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<td>skills. The focus is on understanding</td>
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<td>emotions, family involvement, and adaptive</td>
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<td>behavior in long-term care settings. Demonstrations</td>
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<td>with role play provides practical experience to</td>
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<td>enhance understanding. Credit/No Credit only.</td>
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</table>
GERON 1024 Exploring the Field of Gerontology .5 Units
Hours: 9 hours LEC
This course covers aspects of Gerontology which relate to marketing oneself and developing a business as a provider of services to the elderly. Topics include diversity of the field of Gerontology, resumes, interviews, marketing, and future projections. Credit/No Credit only.

GERON 1025 The Gerontologist .5 Units
Hours: 9 hours LEC
This course examines the field of Gerontology. Topics include the role/responsibilities of the Gerontologist and the educational process required to become a Gerontologist. Current and future employment opportunities are covered. Credit/No Credit only.

GERON 1026 Health of Older Women .5 Units
Hours: 9 hours LEC
This course analyzes the uniqueness of older women's health needs. Topics focus on gender differences, activities of daily living, caregiver role, economics, self-care, and long-term care. Credit/No Credit only.

GERON 1027 HIV/AIDS and the Elderly .5 Units
Hours: 9 hours LEC
This course examines HIV/AIDS as a disease process and its effect on the aging population. Topics include transmission, universal precautions, treatment options, and psychosocial issues. Credit/No Credit only.

GERON 1028 Men as Caregivers .5 Units
Hours: 9 hours LEC
This course is an overview of specific issues of men as caregivers. Topics include changing roles, research, future projections, and resources relating to men as caregivers. Credit/No Credit only.

GERON 1029 End-Stage Life Care .5 Units
Hours: 9 hours LEC
This course focuses on effective strategies for assisting the dying patient and his/her family. Topics include concepts of sub-acute care, physician-assisted suicide, euthanasia, and the effect of these issues on the elderly population. Credit/No Credit only.

GERON 1030 Legislation: Origin and Influence .5 Units
Hours: 9 hours LEC
This course is an overview of how the political process affects issues of aging and delivery of services. It focuses on means of impact on the legislative process and the influence of this process on community resources for older adults. Credit/No Credit only.

GERON 1031 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. Credit/No Credit only.

GERON 1032 Illness in Later Life .5 Units
Hours: 9 hours LEC
This course examines chronic diseases associated with age. Topics covered are osteoarthritis, hypertension, diabetes, coronary artery disease, and stroke. In addition, the prevention and management of chronic illness through lifestyle choices are covered. Credit/No Credit only.

GERON 1033 Spirituality, Religion and the Elderly .5 Units
Hours: 9 hours LEC
This course examines religion and belief systems practiced by the elderly population in the U.S. The differences between spirituality and religiosity are discussed, as well as how both are integrated and manifested in the lives of the elderly. Spirituality as a coping mechanism and source of strength and hope is also discussed. Credit/No Credit only.

GERON 1034 Sexuality and Aging .5 Units
Hours: 9 hours LEC
This course examines basic sexual anatomy and physiology of men and women with emphasis on the changes that occur with aging. Topics include sexuality, menopause, impotence, sexually transmitted diseases, heterosexuality, and homosexuality of the older population. Credit/No Credit only.

GERON 1035 Special Need Seniors: Mentally Ill and Homeless .5 Units
Hours: 9 hours LEC
This course is an overview of the unique factors involved in caring for the mentally ill and the homeless senior population. Topics covered are types and stages of mental illness, social stereotypes, resources for the mentally ill, effects of homelessness on elders, acceptance of aged homeless, and resources for elderly homeless. Credit/No Credit only.

GERON 1036 Right-to-Die Movements and Issues .5 Units
Hours: 9 hours LEC
This course examines both the right-to-die and right-to-life movements as they address the elderly and the dying. Topics include assisted suicide, advance directives, hospice, and palliative care. Credit/No Credit only.

GERON 1037 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. Credit/No Credit only.

GERON 1040 Emotional Health and Aging .5 Units
Hours: 9 hours LEC
This course is an overview of the factors involved in emotional health and aging. Topics include social support systems, having a positive role, goals, effects of stereotypes, the continuation of life skills, and the development of wisdom. Credit/No Credit only.

GERON 1041 Psychological Treatment Modalities and Aging .5 Units
Hours: 9 hours LEC
This course explores different treatment modalities relevant to mental health and aging. Topics include the following therapies as they apply to seniors: grief, cognitive-behavioral, family-intergenerational, and psychoanalytical. Credit/No Credit only.

GERON 1042 Life Review and Reminiscence .5 Units
Hours: 9 hours LEC
This course explores the role and techniques of life review and reminiscence in older age and their therapeutic effects. Topics include history of storytelling, group process, facilitating groups, and the art of listening. Credit/No Credit only.
GERON 1043 Caregiving .5 Units
Hours: 9 hours LEC
This course examines theories and research on caregiving. Topics include developmental stages of aging, managing and defining caregiver roles, palliative care, coping with stress and burnout, and community resources. Credit/No credit only.

GERON 1044 Creativity and Aging .5 Units
Hours: 9 hours LEC
This course covers the diversity of creative expression and the changes which may come with age. Topics include differing definitions of creativity, nurturing life-long creativity, opening new creative paths, and creative exercises. Credit/No Credit only.

GERON 1045 Super Centenarians .5 Units
Hours: 9 hours LEC
This course examines the new phenomenon of large numbers of people living 100 or more years. Topics include the reasons for this increased longevity and its implications for society. Credit/No credit only.

GERON 1046 Fundamentals of Aging: Working with Older Adults .5 Units
Hours: 9 hours LEC
This course is designed for those who provide direct and indirect care and services for seniors. It focuses on population changes; physical, social and psychological changes with age; ethical choices in working with seniors; independence and dependency; and communication skills. Credit/No Credit only.

GERON 1047 The Aging of the Brain .5 Units
Hours: 9 hours LEC
This course explores how the human brain works and how it ages. Emphasis is on the difference between normal aging and pathology associated with age as well as strategies to maximize healthy functioning of the brain throughout the aging process. Credit/No Credit only.

GERON 1048 The Graying of America .5 Units
Hours: 9 hours LEC
This course examines the increase in the aging population and its impact on long-term care. Topics include changes in population groups, life expectancy, family structure, and long-term care. Credit/No Credit only.

GERON 1049 Economics of Aging .5 Units
Hours: 9 hours LEC
This course provides an overview of the economics of retirement including Social Security, pensions, Medicare, and MediCal. It also covers economic problems and proposed solutions, fiduciary abuses and fraud. Credit/No credit only.

GERON 1050 Alcohol and the Elderly .5 Units
Hours: 9 hours LEC
This course explains how alcohol affects seniors in both independent and assisted living environments and explores treatment options for seniors. Credit/No Credit only.

GERON 1051 Professionalism and Ethics in Gerontology .5 Units
Hours: 9 hours LEC
This course explores professionalism and ethical conduct for those working with seniors in independent and long-term care environments. Topics include the difference between ethics and morals as well as professional conduct and listening skills. Credit/No Credit only.

GERON 1052 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. Credit/No Credit only.

GERON 1053 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 1054 Suicide and the Elderly .5 Units
Hours: 9 hours LEC
This course examines the risk of suicide among older adults including factors of loss, depression, religiosity, and poverty. Suicide prevention programs are also explored. Credit/No Credit only.

GERON 1055 Generational Interdependency .5 Units
Hours: 9 hours LEC
This course explores the changing relationships among generations. Topics include intergenerational programming and community building, aging policy and its effects on society, and community program development. Credit/No Credit only.

GERON 1056 Exploring Case Management as a Career .5 Units
Hours: 9 hours LEC
This course is an overview of the roles and functions of the Case Manager in long-term care. Topics include the skills and education required to be a Case Manager and the career benefits, earnings, and advancement potential.

GERON 1057 Aging of the Brain .5 Units
Hours: 9 hours LEC
This course explores how the human brain works and how it ages. Emphasis is on the difference between normal aging and pathology associated with age as well as strategies to maximize healthy functioning of the brain throughout the aging process. Credit/No Credit only.

GERON 1058 Housing Options and Aging .5 Units
Hours: 9 hours LEC
This course is an overview of the different housing options available for senior living. Public and private resources, financial issues, and misconceptions about senior housing are analyzed. Credit/No Credit only.

GERON 1059 Case Management: Processes and Skills .5 Units
Hours: 9 hours LEC
This course examines the skills and processes involved in geriatric case management. The process of creating and conducting a biological, psychological, and social assessment; developing a care plan; coordinating services; and managing a caseload are explored. Focus is on communication skills and tools needed to practice ethical geriatric case management in a variety of settings. Credit/No Credit only.

GERON 1060 Gerontological Social Work .5 Units
Hours: 9 hours LEC
This course covers the diversity of creative expression and the changes which may come with age. Topics include differing definitions of creativity, nurturing life-long creativity, opening new creative paths, and creative exercises. Credit/No Credit only.

GERON 1061 Exploring Case Management as a Career .5 Units
Hours: 9 hours LEC
This course is an overview of the roles and functions of the Case Manager in long-term care. Topics include the skills and education required to be a Case Manager and the career benefits, earnings, and advancement potential.

GERON 1062 Exploring Case Management as a Career .5 Units
Hours: 9 hours LEC
This course is an overview of the roles and functions of the Case Manager in long-term care. Topics include the skills and education required to be a Case Manager and the career benefits, earnings, and advancement potential.

GERON 1063 Exploring Case Management as a Career .5 Units
Hours: 9 hours LEC
This course is an overview of the roles and functions of the Case Manager in long-term care. Topics include the skills and education required to be a Case Manager and the career benefits, earnings, and advancement potential.
GERON 1064  Aging Experience in Hispanic Families  
.5 Units

Hours: 9 hours LEC

This course examines the aging experience unique to Hispanics and the impact of culture, societal expectations, family roles, values, beliefs, and caregiving. Focus is on social support systems and strategies for assisting aging Hispanics and their families. Credit/No Credit only.

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.

**HEED 300  Health Science  3 Units**
*General Education: AA/AS Area III(b); CSU Area E1*
*Course Transferable to UC/CSU*
*Hours: 54 hours LEC*
This course focuses upon those elements of human behavior 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 lifestyle disease especially cancer, cardiovascular disease and lung disease.

**HEED 310  Community CPR and Adult AED  1 Unit**
*Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESWL 320 with a grade of “C” or better; OR placement through assessment process.*
*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. This course may be taken four times.

**HEED 311  CPR and Pediatric First Aid  1.5 Units**
*Same As: ECE 410*
*Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESWL 320 with a grade of “C” or better; OR placement through assessment process.*
*Course Transferable to CSU*
*Hours: 27 hours LEC*
This course covers emergency life saving and first aid techniques involving infants and children. Respiratory distress, non-breathing, unconsciousness, choking, and other pediatric emergencies are addressed. CPR for adults is another major component of this course. The California Child Care first aid certificate examination, the Adult CPR, and the Infant and Child CPR examination are included. ECE 410 and this course fulfill Title 22 (California Department of Social Services) Health and Safety requirements for staff. ECE 414/HEED 311 may be taken four times.

**HEED 316  First Aid: Responding to Emergencies  2 Units**
*Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESWL 320 with a grade of “C” or better; OR placement through assessment process.*
*Course Transferable to CSU*
*Hours: 36 hours LEC*
This course provides consistent guidelines that enable the citizen responder to give appropriate care, regardless of the type of emergency. It is designed for anyone desiring a general knowledge of first aid procedures (parents, foster parents, teachers, recreation majors, police officers, lifeguards, etc.). Situations involving heart attacks, breathing difficulties, lack of pulse, and severe bleeding are covered. Injuries and sudden illnesses are also addressed. The following certification examinations are included: Responding to Emergency (first aid), Adult CPR/AED, and Infant and Child CPR.

**HEED 323  Cardio Pulmonary Resuscitation (CPR)/Automated External Defibrillators (AED) for the Professional Rescuer  .5 Units**
*Prerequisite: Current American Red Cross Community CPR or American Heart Association Basic Life Support Certification.*
*Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESWL 320 with a grade of “C” or better; OR placement through assessment process.*
*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, disease transmission, severe bleeding, and moving the victims, as well as professional rescuer situation practice sessions. May be taken four times for credit.

**HEED 352  Stress Management and Health  3 Units**
*Same As: PSYC 359*
*General Education: AA/AS Area III(b); CSU Area E1*
*Course Transferable to CSU*
*Hours: 54 hours LEC*
This course examines productive and nonproductive stress and the influence of various types of stress on health and wellness. Topics include the physiological aspects of stress and its effects on health, assessments of personal coping style, strategies for coping effectively with stress, relaxation techniques, and positive reinforcers. Emphasis is placed on practical application of stress management techniques in daily life. This course is not open to students who have completed PSYC 359.

**HEED 494  Topics in Health Education  .5-3 Units**
*Course Transferable to CSU*
*Hours: 54 hours LEC*
This course provides opportunities to study contemporary topics in health which are not included in current offerings or which require emphasis beyond existing courses. The course may be taken four times for a maximum of 6 units providing there is no duplication of topics.
The study of history contributes to cultural literacy and develops critical thinking and other useful skills while helping students understand today.

HIST 300  History of Western Civilization  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; OR placement through assessment process.
General Education: AA/AS Area V(b); AA/AS Area I; CSU Area C; CSU Area D6; IGETC Area 3B
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, emphasizing the social, political, economic, cultural and intellectual forces that have served to define western civilization. The focus is on the cultural legacies and contributions of the Ancient Middle East, Greece, Rome and Medieval Europe to the development of Western civilization.

HIST 302  History of Western Civilization  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; OR placement through assessment process.
General Education: AA/AS Area V(b); AA/AS Area I; CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of western civilization from the Renaissance to the present, emphasizing the interplay of social, political, economic, cultural and intellectual forces in creating and shaping the modern world. The focus is on the process of modernization, stressing the secularization of Western society and examining how war and revolution have served to create our world.

HIST 305  Women in Western Civilization  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; OR placement through assessment process.
General Education: AA/AS Area V(b); AA/AS Area I; CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of women’s contributions to the major ideas, institutions and events of Western Civilization. Examines the diversified roles of women from antiquity to the present with emphasis on the interaction of the sexes. Analyzes the effects on the society of the patriarchal structure of the family and consequently the pervasive impact on all institutions of Western culture.

HIST 307  History of World Civilizations to 1500  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; OR placement through assessment process.
General Education: AA/AS Area V(b); AA/AS Area I; AA/AS Area VI; CSU Area C; CSU Area D6; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is a survey of world civilizations from antiquity to the 1500’s, with a particular emphasis on the dynamic interaction and comparison of peoples and cultures. The focus is on the role played by social, political, economic, cultural, and religious forces in shaping major world civilization and the legacy of these subsequent civilizations and our world today.

HIST 308  History of World Civilizations, 1500 to Present  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; OR placement through assessment process.
General Education: AA/AS Area V(b); AA/AS Area I; AA/AS Area VI; CSU Area C; CSU Area D6; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of world civilizations from the 16th century to the present, with particular emphasis on the dynamic interaction of peoples and cultures. The focus is on the role played by social, political, economic, cultural, and religious forces in shaping major world civilizations and the legacy of these civilizations and our world today.

HIST 310  History of the United States  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; OR placement through 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 a survey of United States history from its European, African, and Native American backgrounds to 1865. The course examines the origin and development of many of this nation’s political, social, economic and intellectual institutions including their influences upon contemporary American life. These analyses also emphasize such historical concepts as cause and effect, multiple causation and historical interpretation.

HIST 311  History of the United States  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; OR placement through 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 a survey of United States history from 1865 to the present. It examines many of America’s political, social, economic, and intellectual institutions, including their influences upon contemporary life. This course also examines this nation’s increasing involvement in world affairs. These analyses are set within the context of such historical concepts as cause and effect, multiple causation, and historical interpretation.
HIST 318  American Intellectual and Cultural History  3 Units
Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through 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 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: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area V(a); AA/AS 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. The 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: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area V(a); AA/AS 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 322  History of the United States: The American Indian Experience  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; OR placement through assessment process.
General Education: AA/AS Area V(a); AA/AS 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. The course covers the effects of European contact, trade, and colonization. It examines the effects of United States political, economic, and social policies on Indians throughout U.S. history. Also, emphasis is placed on American Indian people's attempts to protect their sovereignty and revitalize their societies across time.

HIST 323  History of the United States: The American Indian Experience  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; OR placement through assessment process.
General Education: AA/AS Area V(b); CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of the discovery and settlement of California by the Spanish, the Mexican period, American conquest and occupation, the Gold Rush, and events through the Constitution of 1879.
HIST 341  History of California: 1879 to Present  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; OR placement through assessment process.
General Education:  AAAS Area V(b); CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of California's late Nineteenth and Twentieth Century history emphasizing political, economic, and cultural development to the present time. This course fulfills California state requirement in state and local government, but does not meet the requirement in United States Constitution.

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; OR placement through assessment process.
General Education:  AAAS Area V(b); CSU Area D6
Course Transferable to CSU
Hours: 54 hours LEC; 18 hours LAB
This course is a history of the Mother Lode with emphasis on the Gold Rush Era and its effects on the natural environment of the region. Lecture-lab activities 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. A student may earn a maximum of three units.

HIST 364  Asian Civilization  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; OR placement through assessment process.
General Education:  AAAS Area V(b); AAAS Area I; CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of Asian Civilization with emphasis on South and East Asia, beginning with the dawn of recorded history through 1800. The cultures of India, China, and Japan will be emphasized.

HIST 365  Asian Civilization  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; OR placement through assessment process.
General Education:  AAAS Area V(b); AAAS Area I; CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of the political, social, economic and cultural transformation of India, China and Japan since 1800. Emphasis will be on how these cultures responded to meet the changes of Western Civilization.

HIST 367  History of Russia  3 Units
Advisory:  ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320
General Education:  AAAS Area V(b); CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of Russian history from 1861 to the present. It examines the major social, political, and economic developments that have shaped Russian society and culture. Special attention is given to Russian culture, politics and protest during the 19th century, the revolutions of 1917 and the Bolshevik rise to power, the creation and expansion of the Soviet state under Stalin, and the decline and collapse of Soviet power.

HIST 373  History of Mexico  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; OR placement through assessment process.
General Education:  AAAS Area V(b); CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is a survey of Indian Mexico, the Spanish conquest and fusion of two cultures, the War of Independence, the age of Santa Ana and the loss of New Mexico, the reign of Diaz, the Revolution of 1910, reconstruction and contemporary Mexico.

HIST 379  Studying in Italy:  Italian History and Culture  4 Units
General Education:  AAAS Area I; III(b)
Course Transferable to 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, the course focuses on the ancient and religious sources of Italian culture. In Florence, students explore and examine how human expression in art, literature, and philosophy served to create a new sense of the possible during the Renaissance. Also studied is how culture reflects human values and how those values can be transformed and at times ennobled by creative genius.

HIST 480  History of Western Civilization - Honors  3 Units
Prerequisite:  Cumulative GPA of 3.0 or above; ENGRD 300 or 480 with a grade of "C" or better.
General Education:  AAAS Area V(b); AAAS Area I; CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
A survey of western civilization from its origins in the Ancient Middle East until the Renaissance. The emphasis will be on the social, political, economic, cultural and intellectual forces that have served to shape the modern world. The focus will be on challenging student to interpret the past by critically analyzing both primary sources and relevant works by leading historians.

HIST 481  History of Western Civilization - Honors  3 Units
Prerequisite:  Cumulative GPA of 3.0 or above; ENGRD 300 OR 480 with a grade of "C" or better.
General Education:  AAAS Area V(b); AAAS Area I; CSU Area C; CSU Area D6; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a history of western civilization from the Renaissance to the present. Emphasis will be on the social, political, economic, cultural and intellectual forces that have served to shape the modern world. The focus will be on challenging students to interpret the past by critically analyzing both primary sources and relevant works by leading historians.
HIST 483 History of the United States - Honors
3 Units
Prerequisite: Cumulative GPA of 3.0 or above; ENGWR 300 or 480
with a grade of “C” or better.
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 Co-
lonial through the American Civil War eras. Particular emphasis
will be placed on the interrelationships of the developing American
political, economic, social, and cultural institutions.

HIST 484 History of the United States - Honors
3 Units
Prerequisite: Cumulative GPA of 3.0 or above; ENGWR 300 or 480
with a grade of “C” or better.
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 intense study of American history from 1865 to the
present day. Particular emphasis will be placed on the interrelation-
ships of American political, economic, social, and cultural develop-
ments.

HIST 494 Topics in History .5-4 Units
Advisory: HIST 302
Course Transferable to CSU
Hours: 72 hours LEC
This course provides the opportunity for concentrated study on spe-
cialized topics in History. It covers topics from a wide range of aca-
demic disciplines including anthropology, economics, engineering,
fine arts, history, law, life science, literature, mathematics, philosop-
hy, political science, sociology, psychology and varies in content and
scope with the interests and expertise of both the instructors and the
students. This course may be taken four times on different topics.
Landscape Industry Degree
The degree presents horticultural science and provides skills that relate to the landscape construction and maintenance industry. The program concentrates on plant identification, design, installation, irrigation, maintenance, soils sustainability, and disease and pest certification. Work experience is required.

Requirements for Degree  32-35 Units
HORT 100  Plant Diseases and Pests ................................................. 3
HORT 105  Pest Control Licensing For Certification .......................... 2
HORT 110  Irrigation Design ........................................................... 2
HORT 298  Work Experience in Horticulture ................................... 1 - 4
HORT 300  Introduction to Horticulture .......................................... 3
HORT 302  Soils and Plant Nutrition ................................................. 3
HORT 305  Plant Materials I ............................................................ 3
HORT 306  Plant Materials II ........................................................... 3
HORT 320  Landscape Construction .................................................. 3
HORT 322  Landscape Graphics ....................................................... 3
HORT 324  Landscape Maintenance .................................................. 3
HORT 326  Landscape Design ........................................................... 3

Associate Degree Requirements: The Landscape Industry 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.

Landscape Industry Certificate
This certificate presents horticultural science and provides skills that relate to the landscape construction and maintenance industry. The focus of this program concentrates on plant identification, design, installation, maintenance, soils sustainability, and disease and pest certification.

Requirements for Certificate  31 Units
HORT 100  Plant Diseases and Pests ................................................. 3
HORT 105  Pest Control Licensing For Certification .......................... 2
HORT 110  Irrigation Design ........................................................... 2
HORT 300  Introduction to Horticulture .......................................... 3
HORT 302  Soils and Plant Nutrition ................................................. 3
HORT 305  Plant Materials I ............................................................ 3
HORT 306  Plant Materials II ........................................................... 3
HORT 320  Landscape Construction .................................................. 3
HORT 322  Landscape Graphics ....................................................... 3
HORT 324  Landscape Maintenance .................................................. 3
HORT 326  Landscape Design ........................................................... 3

Nursery Industry Degree
This degree provides a broad overview of the science of horticulture as it relates to the nursery industry. The focus of the program covers plant production and sales, plant identification, soils and fertilizers, plant diseases and pests, design and pesticide certification.

Requirements for Degree  30-33 Units
HORT 100  Plant Diseases and Pests ................................................. 3
HORT 105  Pest Control Licensing For Certification .......................... 2
HORT 298  Work Experience in Horticulture ................................... 1 - 4
HORT 300  Introduction to Horticulture .......................................... 3
HORT 302  Soils and Plant Nutrition ................................................. 3
HORT 305  Plant Materials I ............................................................ 3
HORT 306  Plant Materials II ........................................................... 3
HORT 310  Nursery Practices .......................................................... 3
HORT 312  Plant Propagation ........................................................... 3
HORT 322  Landscape Graphics ....................................................... 3
HORT 326  Landscape Design ........................................................... 3

Associate Degree Requirements: The Nursery Industry 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.

Floristry Certificate
The Floristry certificate provides well-balanced training in the fundamentals of floral design, the identification of flowers and foliage, the care of fresh cut product and the sources of floral materials. Courses cover special event floral design such as weddings, funerals and holidays, and prepare students to participate in the varied floral enterprises.

Requirements for Certificate  8 Units
HORT 200  Introduction to Retail Floristry ....................................... 2
HORT 201  Floral Design ................................................................. 2
HORT 202  Corsage and Wedding Floral Design ............................... 2
HORT 203  Multi Occasion, Sympathy Design and the Mass Market ....... 2
HORT 100  Plant Diseases and Pests  3 Units
Corequisite: HORT 300.
Hours: 36 hours LEC, 54 hours LAB
This course is a study of local plant diseases and pests including weed problems, recognition of symptoms and causes, plant/insect/disease life cycles, host and habitat relationships and methods of control.

HORT 105  Pest Control Licensing For Certification  2 Units
Prerequisite: HORT 300 with a grade of “C” or better.
Hours: 36 hours LEC
This course covers the laws and regulations for operators, applicators, and advisors including the study of weeds, diseases and insects and accepted standards for control.

HORT 110  Irrigation Design  2 Units
Prerequisite: HORT 300 with a grade of “C” or better.
Hours: 36 hours LEC
This course is a study of water hydraulics, irrigation equipment inclusive of heads, pipes, pumps, clocks, and valves. Irrigation design, which includes preparing plans, dealing with measurement, head layout, pipe sizing and specifications, is covered.

HORT 140  Advanced Student Projects  2 Units
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. This course may be taken twice for credit.

HORT 200  Introduction to Retail Floristry  2 Units
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  2 Units
Prerequisite: HORT 200 with a grade of “C” or better.
Hours: 18 hours LEC, 54 hours LAB
This course builds on the theory, techniques and skills developed in HORT 200. Identification of wholesale sources, origin of product, and seasonal price fluctuations in the industry and market are discussed. The emphasis of the course is on design techniques. Field trips may be required.

HORT 202  Corsage and Wedding Floral Design  2 Units
Prerequisite: HORT 201 with a grade of “C” or better.
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 corsages, tools and materials for creating them, and other body flower designs are taught and experienced. Field trips may be required.

HORT 203  Multi Occasion, Sympathy Design and the Mass Market  2 Units
Prerequisite: HORT 202 with a grade of “C” or better.
Hours: 18 hours LEC, 54 hours LAB
This course presents the theory of sympathy, tribute, party and multi-occasion floral design. Design applications for standing, flat sprays, set work, large multi-occasion arrangements and casket covers are included, as well as their delivery and set up. The mass market place in floral design is explored. Field trips may be required.

HORT 298  Work Experience in Horticulture  1-4 Units
Prerequisite: Horticulture 300 with a grade of “C” or better.
Advisory: HORT 100, 302, and 305.
General Education: AA/AS Area III(b)
Hours: 18 hours LEC, 225 hours LAB
This course provides supervised work experience in the field of horticulture for the purpose of increasing students’ understanding of the nature and scope of the operation of horticulture businesses. Class enrollment is dependent upon student being in a paid or volunteer work experience learning environment.

HORT 300  Introduction to Horticulture  3 Units
General Education: AA/AS Area IV
Course Transferable to CSU
Hours: 54 hours LEC
This course is a survey of principles and practices of horticulture designed to improve the knowledge of the home gardener as well as those seeking a career in horticulture. Topics include basic plant structure and function, general knowledge of plant usage, landscape planning and maintenance.

HORT 302  Soils 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 water and irrigation problems and erosion control, composition, value and use of fertilizer materials, conditioners and agricultural minerals.

HORT 305  Plant Materials I  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, habits of growth, cultural requirements and uses of ornamental woody and herbaceous plants used in the California landscape. Emphasis is on those plants best observed in the fall and winter seasons.

HORT 306  Plant Materials II  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, habits of growth, cultural requirements and uses of ornamental woody and herbaceous plants used in the California landscape. Emphasis is on those plants best observed in the fall and winter seasons.

HORT 310  Nursery Practices  3 Units
Prerequisite: HORT 300 with a grade of “C” or better.
Advisory: HORT 100, 302, 305, and 306.
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course is an overview of the practices involved in commercial nursery operations. Topics include selling techniques, displays and advertising, and customer assistance with basic garden practices.

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 including identification of facilities, equipment and techniques utilized in plant production. Topics include seed and vegetative propagation, media selection and structures.
HORT 314  Greenhouse Operations  3 Units
Prerequisite: HORT 300 with a grade of “C” or better.
Advisory: HORT 100, 302, 305, and 306.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a study of the problems and practices in the management of greenhouses, including the production of specific greenhouse crops.

HORT 320  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 provides the theory and skills needed in the landscape construction industry. Landscape operations covered include carpentry, masonry, concrete/pavers, irrigation/drainage, low-voltage lighting, soil preparation and drainage, plant materials/turf, plan reading, estimating and bidding in the landscape trades. Field trips are required.

HORT 322  Landscape Graphics  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 the study of technical drafting skills and freehand graphics including line quality, lettering and organization as it relates to landscape design. It also includes an introduction to three-dimensional sketching and the use of a variety of graphics skills and media.

HORT 324  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 landscape maintenance of exterior and interior residential and commercial landscapes, parks, highways, and public buildings. Topics include planting, pruning, watering, fertilizing, pest control and power equipment operation and maintenance. Field trips are required.

HORT 326  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 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 328  Turf Grass Management  3 Units
Prerequisite: Horticulture 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 maintenance and management of turfgrass areas including golf greens, athletic fields, parks, as well as residential lawns.

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. Design emphasis includes site plan development and landscape planting and landscape irrigation plans, with the generation of materials lists based on the design created for the site.

HORT 330  Small Gas Engines, 4-Cycle  2 Units
Same As: AT 301
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers basic operational theory, servicing, adjusting and the maintenance of 4-cycle small gas engines as they pertain to the automotive and horticulture industries. This course is not open to students who have taken AT 301.

HORT 331  Small Gas Engines, 2-Cycle  2 Units
Same As: AT 302
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers basic operational theory, servicing, adjusting, and maintaining 2-cycle small gas engines as they pertain to the automotive and horticulture industries. This course is not open to students who have taken AT 302.
## Culinary Arts/Restaurant Management Degree
This degree focuses on basic and advanced culinary techniques, related to both hot food and baking. There is additional emphasis on supervisory and management skills, marketing, law, and financial accountability. The Oak Cafe is a small, fine dining restaurant that provides a management training lab for advanced students in the program.

### 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

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<tr>
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<td>Professional Cooking</td>
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1HM 315 is a prerequisite for all HM hot-food lab classes  
2HM 370 requires an additional minimum of 8 hours per week in the Oak Cafe  
3HM 380 requires an additional minimum of 16 hours per week in the Oak Cafe

### Culinary Arts / Restaurant Management Certificate
This Certificate focuses on basic and advanced culinary techniques, related to both hot food and baking. There is additional emphasis on supervisory and management skills, marketing, law, and financial accountability. The Oak Cafe is a small, fine dining restaurant that provides a management training lab for advanced students in the program.

### 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.

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1HM 315 is a prerequisite for all HM hot-food lab classes  
2HM 370 requires an additional minimum of 8 hours per week in the Oak Cafe  
3HM 380 requires an additional minimum of 16 hours per week in the Oak Cafe

### 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.
Hospitality Management: Restaurant Management Certificate

This Certificate provides hands-on learning with an emphasis on supervisory and management skills in the restaurant environment. Management and the front-of-the-house skills are emphasized, with students learning basic culinary skills. The Oak Cafe is a small, fine dining restaurant that provides a management training lab for advanced students in the program.

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.

Requirements for Certificate  28 Units

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<td>Dining Room Management</td>
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And a minimum of 5 units from the following:  5 Units

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</table>

1HM 370 requires an additional minimum of 8 hours per week in the Oak Cafe.

Introductory Baking Certificate

The Introductory Baking certificate provides hands-on learning, focusing on job skills with an emphasis on baking and pastry. It includes production baking, candies, wedding and specialty cakes, plated desserts and artisan breads.

Requirements for Certificate  17 Units

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<td>Becoming a Chef</td>
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</table>

HM 100 Calculations in Foodservice Occupations  3 Units

Advisory: MATH 25; or placement through the assessment process.

This course is a study of mathematical principles in the context of commercial food production. Topics include recipe conversion and yields, production baking formulas, 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 introductory course is designed to provide the foundation for all entry level food preparation courses. It focuses extensively on the development of job skills, equipment utilization, weights, measurements, knife speed and accuracy, as well as kitchen product identification.

HM 110 Management and Supervision in the Hospitality Industry  2 Units

Advisory: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, and ESLW 320, or placement through assessment.

Hours: 36 hours LEC

The role of management in supervision including profiles of effective management styles, supervision and leadership is covered. Current theories of management and supervision of service industry are introduced.

HM 120 Beverage Operation  2 Units

Advisory: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, and ESLW 320, or placement through assessment.

Hours: 36 hours LEC

This course is a study of beverages, both alcoholic and non-alcoholic, used in the food service industry. Topics include: beverage composition, production methods and regions, quality, characteristics, uses in drinks and food, beverage service; wine analysis, service and pairing with food; government regulations and licenses. Field trips are included.

HM 125 Legal Aspects of the Hospitality Industry  2 Units

Advisory: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, and ESLW 320, or placement through assessment.

Hours: 36 hours LEC

This course provides an explanation of legal aspects of the food service industry. Topics include government regulations, patron safety and rights; liability issues for food, alcohol, property and ownership protection; employee issues of fair hire and termination and forms of business organization.

HM 150 Catering  3 Units

Prerequisite: HM 315 with a grade of “C” or better.

Advisory: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, and ESLW 320, or placement through assessment.

Hours: 18 hours LEC, 108 hours LAB

This course covers the business and culinary aspects of catering. Topics include starting a catering business, laws, licenses, taxes, insurance and contracts. Also included are interviewing clients and organizing catered menus and events; pricing menus and services; staffing, equipping, and transporting catered services; culinary techniques; and weddings and receptions. Off-campus catering events are required.

HM 155 Mediterranean Cuisine  3 Units

Prerequisite: HM 315 with a grade of “C” or better.

Advisory: HM 100 and 310.

Hours: 36 hours LEC, 54 hours LAB

This course presents the study of ingredients and culinary techniques used in preparing foods from the Mediterranean including France, Italy, Sicily, Greece, Spain, North Africa and regional focuses within these areas. The laboratory component includes skills development, production and the use of equipment specific to preparation of Mediterranean foods.
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<td>HM 165</td>
<td>Regional American Cuisine</td>
<td>3</td>
<td>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, Floribian, Cajun, Californian, Midwestern, Southern, Pacific Northwestern, and others. 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.</td>
</tr>
<tr>
<td>HM 180</td>
<td>Garde Manger</td>
<td>3</td>
<td>Prerequisite: HM 315 with a grade of &quot;C&quot; or better. Advisory: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, and ESLW 320, or placement through assessment. Hours: 36 hours LEC, 54 hours LAB. This course focuses on the art of the cold kitchen with emphasis on both modern and classical techniques. Topics covered include hors d’oeuvre, canapés, salads, brining, pickling, curing, and smoking. It also includes basic charcuterie with emphasis on forcemeats, mouselines, terrines, patés, galantines and sausages.</td>
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<tr>
<td>HM 290</td>
<td>Competitive Culinary Training</td>
<td>2-4</td>
<td>Prerequisite: Hospitality Management 315 with a &quot;C&quot; or better. Hours: 18 hours LEC, 225 hours LAB. This course is a cooperative effort between the college, The American Culinary Federation and The Capital Chef’s Associations. Students will work with instructors and local chefs to prepare themselves to compete in regional and national culinary competitions, using the American Culinary Federation format. Labs will include knife skills and hot food preparation. Field trips to local restaurants will be included to work with local chefs. This course may be taken 4 times for a maximum of 12 units.</td>
</tr>
<tr>
<td>HM 297</td>
<td>Internship in Hospitality Management</td>
<td>1-4</td>
<td>Prerequisite: Must have completed 15 units in Hospitality Management with a grade of &quot;C&quot; or better. Advisory: MATH 25, ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, and ESLW 320, or placement through assessment process. Hours: 18 hours LEC, 225 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. May be taken 4 times for credit for a maximum of 8 units.</td>
</tr>
<tr>
<td>HM 300</td>
<td>Becoming a Chef</td>
<td>3</td>
<td>Course Transferable to CSU. Hours: 54 hours LEC. This course covers the history of the culinary profession, 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, and provide exposure to different types of kitchens, industry food shows, and/or markets.</td>
</tr>
<tr>
<td>HM 310</td>
<td>Sanitation, Safety and Equipment</td>
<td>3</td>
<td>Advisory: MATH 204, ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, and ESLW 320, or placement through assessment process. Course Transferable to CSU. Hours: 54 hours LEC. This course covers all phases of food sanitation; cause, control and investigation of illnesses caused by food contamination; sanitary practices in food preparation, proper dishwashing procedures; sanitation of kitchen, dining room, and all equipment; cleaning materials and procedures; garbage and refuse disposal. The course includes general safety precautions, including elementary first aid; maintenance and operation of appropriate food service equipment; and elements of kitchen planning and types of equipment used.</td>
</tr>
<tr>
<td>HM 315</td>
<td>Food Theory and Preparation</td>
<td>4</td>
<td>Advisory: ENGW 102 or 103, 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; OR placement through assessment process. Course Transferable to CSU. Hours: 36 hours LEC, 108 hours LAB. This course is a comprehensive study of basic principles of food science and theory and techniques involved in food preparation. A study of the factors that influence foods and the changes which occur in foods during preparation is included. Emphasis is on basic cooking skills, theory application, product and quality identification.</td>
</tr>
<tr>
<td>HM 320</td>
<td>Breads, Yeast Doughs and Pastry</td>
<td>2</td>
<td>Corequisite: HM 315. Advisory: ENGW 102 or 103, 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; OR placement through assessment process. 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. Topics include croissant, puff dough, and 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. Laboratory work allows individual and quantity production of products studied.</td>
</tr>
<tr>
<td>HM 325</td>
<td>Fine Baking and Pastry (European)</td>
<td>2</td>
<td>Prerequisite: HM 320 with a grade of &quot;C&quot; or better. Advisory: MATH 25, ENGW 102 or 103, 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; OR placement through assessment process. Course Transferable to CSU. Hours: 18 hours LEC, 54 hours LAB. This course covers the theory and principles of fine baking and pastry with emphasis on the European tradition. Concentration is on cakes, fine pastry, chocolate work, decoration, and classic and modern desserts. All lecture and laboratory material is intended for students interested in commercial application in restaurants, bakeries and other food service facilities. Laboratory work allows individual and quantity production of products studied.</td>
</tr>
<tr>
<td>HM 330</td>
<td>Advanced Baking and Pastry</td>
<td>3</td>
<td>Prerequisite: HM 310, 320, and 325 with grades of &quot;C&quot; 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. Lecture emphasizes advanced baking science; laboratory hours are spent in commercial production. Products include European style breads, restaurant style plate presentation, frozen desserts, tortes, cakes, sauces, tarts, pulsed sugar, piping and chocolate work. Emphasis is placed on production of high quality products and professional presentation. Field trips to professional bakeries are required.</td>
</tr>
</tbody>
</table>
**HM 340  Cost Control in the Food Service Industry  2 Units**  
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of \( \geq C \); OR ESLR 320 and ESLW 320 with a grade of \( \geq C \); OR placement through assessment process.  
Course Transferable to CSU  
Hours: 36 hours LEC  
This course covers accounting and cost control principles in the foodservice 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 presents the study of intermediate culinary techniques, 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 8 hours per week of work experience in the operation of the front of the house for The Oak Cafe 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 expectations, methods of service, management of service operations and personnel, internal and external marketing, and daily reports and controls. Work experience component allows for hands-on experience running the dining room of the Oak Café 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.  
Corequisite: HM 498 (to include a minimum of 16 hours per week of work experience in the commercial kitchen of The Oak Café American River College, or other site as assigned-effectively and efficiently producing food for the campus restaurant, campus catering or other commercial use).  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course focuses on 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. Students practice concepts in the work experience portion of the class as they work in the Oak Café two days a week.

**HM 494  Topics in Hospitality Management  .5-4 Units**  
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, and ESLW 320, or placement through assessment process.  
Course Transferable to CSU  
Hours: 72 hours LEC  
This course is designed to give students an opportunity to study topics in Hospitality which are job oriented and not included in current offerings. The course may be repeated for up to 6 units of credit provided there is no duplication of topics.

**HM 498  Work Experience in Hospitality Management  1-4 Units**  
Corequisite: Maintain a minimum of 7 units.  
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, and ESLW 320, or placement through assessment.  
General Education: AA/AS Area III(b)  
Course Transferable to CSU  
Hours: 18 hours LEC; 225 hours LAB  
This course is a cooperative effort between the college and hospitality employers in the community. Discussion topics include performance based objectives, resume writing, interviewing and career planning. May be taken 4 times for credit up to 12 units.
American River College’s counseling and guidance classes are designed to help the student in achieving success in college through a variety of classes, which include study skills, exploration of careers, and field experience in the disabled student services program.

**HCD 111 College Discovery Program** 1 Unit
Hours: 18 hours LEC
This course is a review of opportunities and resources relevant to student success at American River College. It will focus on goals and objectives, campus requirements, and skills, techniques, and attitudes compatible with student progress. Examination of student services, instructional area, and campus life. May be taken twice for credit.

**HCD 114 Human Potential Seminar** 2 Units
Hours: 36 hours LEC
This course provides an in-depth examination of techniques to be used in enhancing one’s chances for success in college. It is designed to meet the needs of students who are experiencing difficulty in achieving their goals in higher education. Course topics include: motivation, goal setting, communication skills, time management, exam preparation, note taking and reading college textbooks. It is required for most dismissed students for readmission to the college.

**HCD 115 Orientation to College** .5 Units
Hours: 9 hours LEC
This course is an introduction to college services and programs at American River College. Topics covered include campus resources, procedures and college requirements. Additionally, a campus tour is required.

**HCD 122 Study Skills** 1 Unit
Same As: INDIS 100
Hours: 18 hours LEC
This course covers specific study skills strategies. It provides the opportunity to analyze attitudes toward studying, and current study skill habits. Topics include specific learning styles, strategies for time management, goal setting, note-taking, memory improvement, reading skills, and how to prepare for, and take exams. This course is not open to students who have completed INDIS 100.

**HCD 136 Career Preparation and the World of Work** 3 Units
Hours: 54 hours LEC
This course provides career planning based on the assessment of interests, personality traits, values, and skills. It develops strategies for a career campaign, including cover letter/resume writing. It concentrates on the physical and emotional demands of work, the study of work among professional, technical, and laboring groups, as well as large and small companies.

**HCD 310 College Success** 3 Units
Advisory: ENGRD 116 or ESLR 320, ENGRW 102 or 103 or ESLW 320
General Education: AA/AS Area III(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course will cover the skills and knowledge necessary for college success. Topics to be covered include motivation and self discipline, learning styles, memory development, time management, communication skills, goal-setting, study techniques, critical thinking skills, and personal issues that face many college students. Campus resources and college regulations will also be covered.

**HCD 316 Athletic Seminar** 1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course addresses the concerns and issues of student athletes. Course topics include support services at ARC, educational planning, career planning, study skills, two-year and four-year eligibility rules, recruitment rules, and nutrition.

**HCD 318 Transfer: Making It Happen** 2 Units
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 36 hours LEC
This course provides the necessary tools and skills to successfully transfer from a community college to a four-year college or university. In addition, it demonstrates the applications of knowledge from college research, self-analysis, and differentiation between college selection and majors.

**HCD 330 Life and Career Planning** 1 Unit
Advisory: ENGRWR 51, ESLR 310, or ESLW 310
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 measurement of aptitude, interests, personality type, values, and skills. Personal and career goals are formulated using career research and decision-making strategies. Course topics include changing career trends and job search techniques.

**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 is designed to assist in the development of research skills in preparation for future employment in a competitive employment market. Topics include researching career fields, setting specific career/educational goals, and examining employment trends. It also includes resume writing, interview skills, and 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 will introduce a wide variety of health-related occupations with particular emphasis on educational programs and career opportunities. Through analysis of interests, personality, and research, an individual college and career plan will be developed.

HCD 337  Volunteer Experience in Health Careers  1.5 Units  
Advisory: ENGWR 102 or ENGWR 103 or ESLW 320 or ESLL 320, HCD 336.  
Course Transferable to CSU  
Hours: 9 hours LEC, 54 hours LAB  
This course offers an opportunity to obtain a “hands-on” volunteer health career experience. Placement will be in hospitals, dental offices, physical therapy clinics, animal health centers, or other locations utilizing health professionals. May be taken twice for credit.

HCD 380  Specific Learning Skills Assessment  1 Unit  
Course Transferable to CSU  
Hours: 18 hours LEC  
This course is designed for the student with special learning difficulties who may have a specific learning disability. Individual assessment of learning strengths and weaknesses will be completed to determine eligibility for Learning Disabilities services using criteria mandated by the California community college system. Offered on a credit/no credit basis only.

HCD 382  Specific Learning Strategies  3 Units  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course provides learning support related to specific learning disabilities. It will present academic strategies to compensate for learning disabilities in order to provide for success in other college course work. May be taken twice for credit.

HCD 384  Field Experience in Disabled Student Programs and Services  3 Units  
Advisory: ENGWR 102 or 103 or ESLW 320 or ESLR 320.  
Course Transferable to CSU  
Hours: 162 hours LAB  
This course provides the student with an in-depth understanding, increased knowledge, and direct application of the techniques and skills required to assist disabled students to be successful in the college setting. The majority of course time will be spent providing support services to students with disabilities. Placement will be determined by the instructor. May be taken three times for credit.

HCD 386  Experiences in Disabled Student Programs and Services  .5-3 Units  
Advisory: ENGWR 102 or 103 or ESLW 320 or ESLL 320.  
Course Transferable to CSU  
Hours: 162 hours LAB  
This course allows students an initial opportunity to provide direct, supervised services to disabled college students, thereby assisting in their adaptation to the physical and academic environment of the community college setting. Placement on campus determined by instructor. Course can be entered up to twelfth (12th) week. May be taken for a maximum of nine (9) units.
Human Services Degree and Certificate

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.

Requirements for Degree or Certificate 33 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>HSER 300</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>or GERON 304</td>
<td>Ethical Issues and Client’s Rights (3)</td>
<td></td>
</tr>
<tr>
<td>HSER 330</td>
<td>Issues of Diverse Populations (3)</td>
<td></td>
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<tr>
<td>or PSYC 365</td>
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<td></td>
</tr>
<tr>
<td>HSER 340</td>
<td>Introduction to Chemical Dependency (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 400</td>
<td>Introduction to Chemical Dependency (3)</td>
<td></td>
</tr>
<tr>
<td>HSER 360</td>
<td>Techniques of Interviewing and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HSER 365</td>
<td>Techniques of Group Counseling</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 300</td>
<td>General Principles (3)</td>
<td></td>
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<tr>
<td>or PSYC 305</td>
<td>Personal Growth and Adjustment (3)</td>
<td></td>
</tr>
<tr>
<td>PSYC 340</td>
<td>Abnormal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>SOC 300</td>
<td>Introductory Sociology</td>
<td>3</td>
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</tbody>
</table>

And a minimum of 6 units from the following: 6^1

<table>
<thead>
<tr>
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<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>HSER 362</td>
<td>Practices in Human Services (3)</td>
<td></td>
</tr>
</tbody>
</table>

^1 HSER 362 must be taken twice.

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

The program in Chemical Dependency Studies centers around the specific skills and abilities necessary to provide comprehensive drug and alcohol counseling. Coursework 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.

Career Opportunities

Upon completion of the program a student possesses the coursework required for initial certification as a California drug and alcohol counselor (CDAC).

Requirements for Degree or Certificate 36 Units

<table>
<thead>
<tr>
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<td>or PSYC 365</td>
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<td>Introduction to Chemical Dependency (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 400</td>
<td>Introduction to Chemical Dependency (3)</td>
<td></td>
</tr>
<tr>
<td>HSER 341</td>
<td>Physiology and Pharmacology; Alcohol &amp; Other Drugs</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 401</td>
<td>Physiology and Pharmacology; Alcohol &amp; Other Drugs</td>
<td></td>
</tr>
<tr>
<td>HSER 342</td>
<td>Alcoholism: Intervention, Treatment &amp; Recovery (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 402</td>
<td>Alcoholism: Intervention, Treatment &amp; Recovery (3)</td>
<td>3</td>
</tr>
<tr>
<td>HSER 360</td>
<td>Techniques of Interviewing and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HSER 365</td>
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</table>

^1 HSER 362 must be taken twice.

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.

HSER 300 Introduction to Human Services 3 Units

Advisory: ENGWTR 102 or ENGWTR 103, and ENGRD 316 or ESLR 320, ESLW 320, or placement through assessment process.

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. Emphasis is on the roles and skills of associate professionals such as health workers, activity directors with the elderly, and children’s welfare assistants, group techniques are emphasized. Required for the Human Services and the Chemical Dependency Studies majors.

HSER 310 Ethical Issues and Client’s Rights 3 Units

Same As: GERON 304

Corerequisite: HSER 300 or 320

Advisory: ENGWTR 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. Not open to students who have completed GERON 304.

HSER 320 Introduction to the Principles of Psychiatric Rehabilitation 3 Units

Advisory: ENGWTR 102 or ENGWTR 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.

Course Transferable to CSU

Hours: 54 hours LEC

This course is an introduction to the principles and practices of psycho-social rehabilitation (PSR) used for working with individuals who have severe mental illness to live successfully in community-based settings. Emphasis is on the roles and skills of unlicensed mental health workers in hospitals, treatment and social rehabilitation settings.
HSER 330  Issues of Diverse Populations  3 Units
Same As: PSYC 365
Advisory: ENGW 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.
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 special population groups including the elderly, African Americans, Hispanics, Asians, Native Americans, homosexuals, the poor and terminally ill. It also includes the nature and extent of chemical dependency and other addictive behaviors. Not open to students who have completed PSYC 365.

HSER 340  Introduction to Chemical Dependency  3 Units
Same As: PSYC 400
Advisory: ENGW 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.
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course is a survey that examines the physiological effects of chemical dependency on the individual. Included is an analysis of the effects of substance abuse on the family; the sociological, economic conditions contributing to substance abuse; and a description of community efforts at prevention and treatment. Not open to students who have completed PSYC 400.

HSER 341  Physiology and Pharmacology: Alcohol & Other Drugs  3 Units
Same As: PSYC 401
Prerequisite: 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 in the body of alcohol and other psychoactive drugs, including opiates, stimulants, depressants, psychotherapeutics, and psychedelics. Also included are the social and psychological implication of tolerance, habituation, and substance abuse of the user and abuser. 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 of techniques used in the treatment of chemical dependency and an evaluation of intervention, individual and group counseling, detoxification, twelve step program, therapeutic communities, and aftercare programs. Not open to students who have completed PSYC 402.

HSER 350  Techniques of Interviewing and Counseling  3 Units
Prerequisite: HSER 300 and PSYC 300 or 305 with a grade of “C” or better.
Corequisite: HSER 310
Course Transferable to CSU
Hours: 54 hours LEC
This course is a survey of interview-counseling techniques appropriate for paraprofessionals in mental health, corrections, and substance abuse counseling. The survey 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 310 and HSER 360 or 365
Enrollment Limitation: Completion of the American River College Human Services Agency placement process.
Course Transferable to CSU
Hours: 18 hours LEC; 108 hours LAB
This course provides advanced study and supervised field experience in public and/or private agencies providing mental health, corrections, chemical dependency, and child/adolescent treatment services. Students apply concepts, values, and skills acquired in other core courses to the process of helping others. This course may be taken three times for credit/no credit only.

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 assumptions of group counseling, and ethical issues are compared, contrasted and analyzed. Primary emphasis is on the use of facilitating skills and group dynamics.

HSER 494  Topics in Human Services  3 Units
Advisory: ENGW 102 or ENGW 103, ENGRD 116 or ESLR 320, ESLW 320 or placement through the assessment process.
Course Transferable to CSU
Hours: 54 hours LEC
This course is a concentrated study of current issues in the field of psychosocial rehabilitation. Topics will reflect contemporary issues and problems in the areas of treatment, recovery, advocacy, and future trends. Emphasis will be in the promotion and support of community-based systems of service.
Humanities courses at ARC emphasize the connections between the arts of major cultures in a process which analyzes the core values of a specific age or place. Art, literature, music, and philosophy are viewed in the historical contexts of classical and modern Europe, the cultures of the Americas, and the civilizations of the East. Courses also provide introductions to the Middle East and to the biblical traditions of the Old and New Testament.

**HUM 300 Classical Humanities 3 Units**
Advisory: ENGWR 102, ENGWR 103, or ESLW 320; or placement through the assessment process.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of Western culture that focuses on the human values expressed through painting, sculpture, architecture, music, literature, and philosophy. Emphasis is on the civilizations of Greece, Rome, and the Middle Ages.

**HUM 310 Modern Humanities 3 Units**
Advisory: ENGWR 102, ENGWR 103, or ESLW 320; or placement through the assessment process.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of Western culture that focuses on the human values expressed through painting, sculpture, architecture, music, literature, and philosophy. Emphasis is on the period from the Renaissance to the Modern Age.

**HUM 320 Asian Humanities 3 Units**
Advisory: ENGWR 102, ENGWR 103, or ESLW 320; or placement through the assessment process.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course surveys traditions, cultures, literature, 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.

**HUM 326 Middle Eastern Humanities 3 Units**
Advisory: ENGWR 102, ENGWR 103, or ESLW 320; or placement through the assessment process.
General Education: AA/AS Area I; CSU Area C; 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: ENGWR 102, ENGWR 103, or ESLW 320; or placement through the assessment process.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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, music of the past and present, and specific attention to the distinctively American aspects of those arts and their difference from the European tradition.

**HUM 360 Introduction to the Old Testament (The Hebrew Bible) 3 Units**
Advisory: ENGWR 102, ENGWR 103, ESR 320, or ESR 320; or placement through the assessment process.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides a literary and historical approach to the Hebrew Bible. This academic and non-sectarian course explores the ancient Israelite society prior to the Common Era through a study of the Old Testament of the Bible, culture artifacts, and other writings of contemporaneous societies of the ancient Middle East, and a study of scholarly theories and archaeological studies related to biblical texts and ancient Israelite material culture.

**HUM 365 Introduction to the New Testament 3 Units**
Advisory: ENGWR 102, ENGWR 103, ESR 320, or ESR 320; or placement through the assessment process.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This academic and non-sectarian course emphasizes the historical and cultural contexts of the New Testament. It analyzes the documents of the early Christian community in relation to both Judaism and the Greco-Roman world. Topics include contemporary religious ideas such as the messiah, the afterlife, the origin of the gospels, the nature of inspiration, transmission of documents and ideas, important Jewish groups, politics of Palestine under the Romans, and the role of Paul.

**HUM 481 Honors Classical Humanities 1 Unit**
Prerequisite: Cumulative GPA of 3.0 or above; ENGWR 300 or 480 with a grade of “C” or better.
Corequisite: HUM 300
General Education: CSU Area C
Course Transferable to UC/CSU
Hours: 18 hours LEC
This honors course supplements HUM 300. It is an in-depth investigation of seminal works and thought in Western culture from antiquity to the Renaissance. The seminar format requires significant reading and presentation commitments.
HUM 482  Honors Modern Humanities  1 Unit
Prerequisite: Cumulative GPA of 3.0 or above; ENGWR 300 or 480 with a grade of "C" or better.
Corequisite: HUM 310
General Education: CSU Area C
Course Transferable to UC/CSU
Hours: 18 hours LEC
This honors course supplements HUM 310. It is an in-depth investigation of seminal works and thought in Western culture from the Renaissance to the present. The seminar format requires significant reading and presentation commitments.

HUM 494  Topics in Humanities  .5-4 Units
Advisory: ENGWR 102 or ESLW 320 or placement through assessment.
Course Transferable to CSU
Hours: 72 hours LEC
This course will provide the opportunity for concentrated study on specialized topics in the Humanities. Each offering focuses on the integration of arts and ideas in the works of a particular time and place and/or illuminates a selected theme. Refer to class schedule for current topic. Individual field trips may be required. Course may be taken for a maximum of 6 units.
English Communication and Literature Degree

The English Communication and Literature degree covers 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 major to prepare for transfer to four-year colleges in majors such as English Composition, Literature and Communication.

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)
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
ENG 300 Introduction to Fiction (3)
ENG 304 Introduction to Poetry (3)
ENG 310 English Literature (3)
ENG 311 English Literature (3)
ENG 320 American Literature (3)
ENG 321 American Literature (3)
ENG 327 Literature of California (3)
ENG 333 African-American Dramatic Literature (3)
ENG 334 Asian-American Literature (3)
ENG 338 Native American Literature (3)
ENG 340 World Literature (3)
ENG 341 World Literature (3)
ENG 345 Mythologies of the World (3)
ENG 360 Women in Literature (3)
ENG 370 Children and Literature (3)
ENG 372 Children and Literature: Storytelling (1)
ENG 374 Children and Literature: Multicultural Literature (1)
ENG 376 Children and Literature: Reader's Theatre (1)
ENG 378 Young People's Literary Classics (3)
ENG 380 Introduction to Shakespeare (3)
ENG 382 Literary Themes in Dramatic Literature (3)
ENG 390 Mystery and Detective Fiction (3)
ENG 392 Science Fiction and Fantasy (3)
ENG 403 Film Adaptations (3)
SPEECH 302 Persuasive Speech (3)
SPEECH 305 Oral Interpretation (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.

History of the Creative Arts Degree

The History of the Creative Arts degree provides a broad knowledge of the history of art, fashion, music and theatre. It is intended for students who wish to work in the creative arts. Students who work closely with their counselor can also use this major to prepare for transfer to four-year colleges in majors such as Art, Music, Theatre and Humanities.

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 480 Honors Introduction to Art (3)
ARTNM 305 History of Graphic Design (3)
FASHN 330 History of Western World Fashion (3)
HUM 300 Classical Humanities (3)
HUM 310 Modern Humanities (3)
HUM 320 Asian Humanities (3)
HUM 326 Middle Eastern Humanities (3)
HUM 330 Humanities of the Americas (3)
MUFL 300 Introduction to Music (3)
MUFL 308 Introduction to Music: Rock & Roll (3)
MUFL 310 Survey of Music History and Literature (3)
MUFL 311 Survey of Music History and Literature (3)
MUFL 315 Jazz History (3)
TA 300 Introduction to the Theatre (3)
TA 302 History and Theory of the Theatre I (3)
TA 303 History and Theory of the Theatre II (3)
TA 306 Diversity in American Drama (1960 to Present) (3)
TA 312 History of Film (3)
TA 314 History of Film: 1880's through 1950's (3)
TA 315 History of Film: 1950's to Present (3)

Associate Degree Requirements: The History of the Creative Arts 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.

Language Studies Degree

The Language Studies degree provides 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 degree to prepare for transfer to four-year colleges in foreign languages majors and any other majors which require proficiency in one or more foreign languages.

Contact: Instruction Office
Phone: (916) 484-8407
(916) 484-8478
Counseling: (916) 484-8572

Degrees: English Communication and Literature
History of Creative Arts
Language Studies
The Individual and Society

Certificates: CSU General Education
Intersegmental General Education Transfer (IGETC)
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)
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
FREN 401 Elementary French (4)
FREN 402 Elementary French (4)
FREN 411 Intermediate French (4)
FREN 412 Intermediate French (4)
GERM 401 Elementary German (4)
GERM 402 Elementary German (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)
JAPAN 401 Elementary Japanese (4)
JAPAN 402 Elementary Japanese (4)
JAPAN 405 Japanese Writing (1)
MAND 401 Elementary Mandarin (4)
MAND 402 Elementary Mandarin (4)
MAND 405 Chinese Characters (1)
RUSS 401 Elementary Russian (4)
RUSS 402 Elementary Russian (4)
RUSS 411 Intermediate Russian (4)
RUSS 412 Intermediate Russian (4)
SILA 305 American Sign Language 1 (4)
SILA 306 American Sign Language 2 (4)
SILA 315 American Sign Language 3 (4)
SILA 316 American Sign Language 4 (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 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.

The Individual and Society Degree
The Individual and Society degree focuses on 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 major to prepare for transfer to four-year colleges in majors such as Psychology, Sociology, Ethnic Studies, Women's Studies and Child Development.

Requirements for Degree 18 Units
A minimum of 18 units from the following: ...................... 18
ANTH 310 Cultural Anthropology (3)
ANTH 315 Cultures in Focus (3)
ANTH 330 Magic, Witchcraft, and Religion (3)
ANTH 333 American Indians of California (3)
ANTH 334 Native Peoples of North America (3)
ECE 312 Child Development (3)
or PSYC 372 Child Development (3)
ECE 314 The Child, the Family and the Community (3)
ECE 430 Culture and Diversity in Early Childhood Education (3)
ECE 432 Leadership in Diversity (3)
HSER 330 Issues of Diverse Populations (3)
or PSYC 365 Issues of Diverse Populations (3)
PSYC 300 General Principles (3)
PSYC 305 Personal Growth and Adjustment (3)
PSYC 320 Social Psychology (3)
PSYC 340 Abnormal Behavior (3)
PSYC 354 Marriage, The Family and Alternatives (3)
PSYC 356 Human Sexuality (3)
PSYC 358 Principles of Interpersonal Relations (3)
PSYC 361 Psychology of Women in a Multicultural Society (3)
PSYC 370 Human Development: A Life Span (3)
SOC 300 Introductory Sociology (3)
SOC 301 Social Problems (3)
SOC 320 Minorities in America (3)
SOC 325 Chicano Culture (3)
SOC 335 Sociology of Aging (3)
SOC 342 Women in American Culture (3)

CSU General Education Certificate
The CSU General Education 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.

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 patterns listed in the American River College (ARC) catalog or consult with an ARC counselor.

Intersegmental General Education Transfer (IGETC) Certificate
The Intersegmental General Education Transfer (IGETC) 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.

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 IGETC certification requirements. See the IGETC pattern in the American River College (ARC) catalog or consult with an ARC counselor.
Tutoring

HSER 1000  Supervised Tutoring  0 Units
Corequisite: Student must be enrolled in a college credit course and be referred by an instructor or counselor.
Hours: hours LAB
This course offers individualized tutoring designed to assist students to increase their success in college courses. Course content will vary depending upon the adjunct course. Attention will be 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.

Tutoring

INTERDISCIPLINARY

INDIS 100  Study Skills  1 Unit
Same As: HCD 122
Hours: 18 hours LEC
This course covers specific study skills strategies. It provides the opportunity to analyze attitudes toward studying, and current study skill habits. Topics include specific learning styles, strategies for time management, goal setting, note-taking, memory improvement, reading skills, and how to prepare for, and take exams. This course is not open to students who have completed HCD 122.

INDIS 320  Introduction to Tutor Training  1 Unit
Advisory: A grade of "B" or better in the course the student will serve as a tutor.
Course Transferable to CSU
Hours: 18 hours LEC
This course is offered in coordination with the American River College Tutorial Services Program. It is designed to train students to become effective tutors.

INDIS 321  Introduction to Group Tutoring  1 Unit
Advisory: A grade of "B" or better in course to be tutored. Faculty recommendation to be a Beacon Learning Assistant or Learning Resource Center group tutor.
Course Transferable to CSU
Hours: 9 hours LEC; 27 hours LAB
This course is offered in coordination with the Beacon Peer-Assisted Learning Program and the Tutorial Services Program. It is designed to familiarize the Learning Assistant with the role of the tutor and the methods of effective group tutoring. This course emphasizes collaborative, interactive approaches to learning in a group setting.

INDIS 325  Tutoring High School Students  3 Units
General Education: AA/AS Area III(b); CSU Area E1
Enrollment Limitation: Interview
Course Transferable to CSU
Hours: 36 hours LEC; 18 hours LAB
A program offered in coordination with the high schools. The course will include a four-week introductory training period. Tutors will work at a selected high school twice per week with assigned tutees. The course is recommended for students majoring in teacher preparation. It may be taken twice for credit.

INDIS 330  Group Leadership Processes  1-4 Units
Prerequisite: An introductory course in psychology, sociology or speech.
Course Transferable to CSU
Hours: 72 hours LEC
Designed to offer and to prepare students for necessary experiences in group processes as participants and as leaders. Students will be given opportunities to assume group leadership roles and to practice effective oral communication as they assist new students with general information about the college and its curriculum.

INDIS 400  Teaching Online  1 Unit
Prerequisite: ENGWR 300 with a grade of "C" or better.
Advisory: Working knowledge of Macintosh/PC.
Course Transferable to CSU
Hours: 18 hours LEC
This course offers the opportunity to integrate the usage of software, hardware, and Internet tools and their related pedagogies into online teaching. The course will require specific hands-on activities and development of materials using technologies featured within the course. This course will provide a brief overview of how to teach a course online. The course will show how to facilitate a class discussion online, how to create quizzes online, and how to send and receive assignments online.
Interior Design Degree

The A.A. degree in interior design provides a foundation of education and skills for students in the ever-expanding field of interior design, or employment upon graduation. Topics include space planning, building and life-safety codes and the American Disabilities Act, reading construction documents, architectural and furniture history and much more for a comprehensive curriculum. This degree includes an internship within the interior design industry.

Career Opportunities

Within the field of interior design there are a variety of career options. Residential design by itself or with a specialty of kitchen and bath design, transgenerational design, home office and theater design. Commercial design includes space planning, hospitality (restaurant, hotel, cruise ship) design, set design, historical and adaptive re-use design are just to name a few. Product design, retail sales, buyer, manufacturer’s representative, facilities managers are part of the interior design field as well.

Requirements for Degree 47 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>FASHN 320</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>IDES 300</td>
<td>Fundamentals of Interior Design</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 322</td>
<td>Materials of Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>IDES 324</td>
<td>Interior Design Business Practices</td>
<td>3</td>
</tr>
<tr>
<td>IDES 330</td>
<td>Beginning Interior Design Studio</td>
<td>3</td>
</tr>
<tr>
<td>IDES 332</td>
<td>Interior Illustration and Rendering</td>
<td>3</td>
</tr>
<tr>
<td>IDES 334</td>
<td>Interior Environment and Space Planning</td>
<td>3</td>
</tr>
<tr>
<td>IDES 340</td>
<td>Beginning CADD for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>IDES 341</td>
<td>Intermediate CADD for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>IDES 350</td>
<td>Codes and Universal Access for Interior Design</td>
<td>2</td>
</tr>
<tr>
<td>IDES 351</td>
<td>Codes and Universal Access Lab</td>
<td>1</td>
</tr>
<tr>
<td>IDES 354</td>
<td>Reading Construction Documents</td>
<td>2</td>
</tr>
<tr>
<td>IDES 497</td>
<td>Internship in Interior Design (1 - 4)</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following: 3 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 300</td>
<td>Elementary Drawing and Composition (3)</td>
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<tr>
<td>ART 323</td>
<td>Design: Color Theory (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>
<td>ARTH 308</td>
<td>Renaissance Tradition in Art (3)</td>
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<tr>
<td>ARTH 310</td>
<td>Modern Art (3)</td>
<td></td>
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<tr>
<td>ARTH 322</td>
<td>Art History of the Non-Western World (3)</td>
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</tr>
<tr>
<td>DESIGN 100</td>
<td>Introduction to Computer Aided Drafting and Design (CADD) (3)</td>
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<tr>
<td>DESIGN 320</td>
<td>Three Dimensional Graphics and Design (3)</td>
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</table>

And a minimum of 3 units from the following: 3 units

<table>
<thead>
<tr>
<th>Course</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 I</td>
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<tr>
<td>IDES 322</td>
<td>Materials of Interior Design</td>
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<td>IDES 324</td>
<td>Interior Design Business Practices</td>
<td></td>
</tr>
<tr>
<td>IDES 330</td>
<td>Beginning Interior Design Studio</td>
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</tr>
<tr>
<td>IDES 340</td>
<td>Beginning CADD for Interior Design</td>
<td></td>
</tr>
</tbody>
</table>

Associate Degree Requirements: The Interior 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.

Kitchen and Bath Design Certificate

This certificate covers the design of efficient and aesthetic kitchens and baths, including space considerations, equipment, materials, building codes and human factors. Designing for clients with special needs, working with challenging spaces, and theme design are included. Residential lighting is included. This certificate facilitates the needs of those trying to pass the National Kitchen and Bath Association certification exam.

Career Opportunities

Students completing this certificate can have careers in the kitchen and bath industry. It might include being a designer, a product representative, or showroom work.

Requirements for Certificate 29 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>IDES 330</td>
<td>Beginning Interior Design Studio</td>
<td>3</td>
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<tr>
<td>IDES 334</td>
<td>Interior Environment and Space Planning</td>
<td>3</td>
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<tr>
<td>IDES 341</td>
<td>Intermediate CADD for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>IDES 342</td>
<td>CADD for Kitchen and Bath Design</td>
<td>2</td>
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<tr>
<td>IDES 350</td>
<td>Codes and Universal Access for Interior Design</td>
<td>2</td>
</tr>
<tr>
<td>IDES 354</td>
<td>Reading Construction Documents</td>
<td>2</td>
</tr>
<tr>
<td>IDES 361</td>
<td>Beginning Kitchen Design</td>
<td>3</td>
</tr>
<tr>
<td>IDES 362</td>
<td>Advanced Kitchen Design</td>
<td>3</td>
</tr>
<tr>
<td>IDES 375</td>
<td>Beginning Bath Design</td>
<td>3</td>
</tr>
<tr>
<td>IDES 376</td>
<td>Advanced Bath Design</td>
<td>2</td>
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</tbody>
</table>

And a minimum of 3 units from the following: 3 units

<table>
<thead>
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<th>Course</th>
<th>Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>IDES 498</td>
<td>Work Experience in Interior Design (1 - 4)</td>
<td>3</td>
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</tbody>
</table>

Interior Retail Merchandising Certificate

The Level I certificate in interior design provides a foundation of education and skills for students in the ever-expanding field of interior design, or employment upon completion. Topics include the materials of interior design, architectural and furniture history, business practices and much more for a comprehensive curriculum.

Career Opportunities

Within the field of interior design there are a variety of career options; residential design by itself or home office and theater design. Retail sales, buyer, manufacturer’s representative, facilities managers are part of our field too.

Requirements for Certificate 24 Units

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
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<td>FASHN 320</td>
<td>Textiles</td>
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<td>IDES 330</td>
<td>Beginning Interior Design Studio</td>
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<tr>
<td>IDES 340</td>
<td>Beginning CADD for Interior Design</td>
<td>3</td>
</tr>
</tbody>
</table>
Para-Professional Interior Design Assistant Certificate

The Level II certificate in interior design provides a foundation of education and skills for students in the ever-expanding field of interior design, or employment upon graduation. Topics include space planning, building and life-safety codes and the Americans with Disabilities Act, reading construction documents, architectural and furniture history, and much more for a comprehensive curriculum. This degree includes an internship within the interior design industry.

Career Opportunities

Within the field of interior design there are a variety of career options. Residential design by itself or with a specialty of kitchen and bath design, transgenerational design, home office and theater design. Commercial design includes space planning, hospitality (restaurant, hotel, cruise ship) design, set design, historical and adaptive re-use design are just to name a few. Product design, retail sales, buyer, manufacturer’s representative, facilities managers are part of the interior design field as well.

Requirements for Certificate 47 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>IDES 312</td>
<td>History of Interior Architecture and Furnishings II</td>
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<td>IDES 332</td>
<td>Interior Illustration and Rendering</td>
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<td>Reading Construction Documents</td>
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</tr>
<tr>
<td>IDES 497</td>
<td>Internship in Interior Design (1 - 4)</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
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</tr>
<tr>
<td>IDES 324</td>
<td>Materials of Interior Design (3)</td>
<td>3</td>
</tr>
<tr>
<td>IDES 330</td>
<td>Fundamentals of Interior Design (3)</td>
<td>3</td>
</tr>
<tr>
<td>IDES 310</td>
<td>History of Interior Architecture and Furnishings I (3)</td>
<td>3</td>
</tr>
<tr>
<td>IDES 322</td>
<td>Materials of Interior Design (3)</td>
<td>3</td>
</tr>
<tr>
<td>IDES 330</td>
<td>Beginning Interior Design Studio (3)</td>
<td>3</td>
</tr>
<tr>
<td>IDES 340</td>
<td>Beginning CADD for Interior Design (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

IDES 110  Estimating and Calculating for Interior Design  3 Units

Hours: 54 hours LEC

This course includes techniques for accurately calculating yardage and materials of interior products for residential and commercial installations. Field trips are required.

IDES 300  Fundamentals of Interior Design  3 Units

Advisory: ENGWR 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; or placement through assessment process.

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 are required.

IDES 310  History of Interior Architecture and Furnishings I  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; OR placement through assessment process.

General Education: AA/AS Area I

Course Transferable to CSU

Hours: 54 hours LEC

This course covers the historical relationship between the decorative arts, period furniture and interior architecture from antiquity through English Regency. Emphasis is placed on identification of specific furniture styles and architectural features.

IDES 312  History of Interior Architecture and Furnishings II  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; OR placement through assessment process.

General Education: AA/AS Area I

Course Transferable to 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 included.

IDES 322  Materials of Interior Design  3 Units

Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, or placement through assessment process.

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 lighting, plumbing fixtures and appliances will be included. Field trips required.

IDES 324  Interior Design Business Practices  3 Units

Advisory: CISC 300.

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’ budget, estimating costs, purchasing, billing, marketing, and sales. Field trips are required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite/Advisory</th>
<th>Hours: LEC/LAB</th>
<th>Transferable to CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDES 326</td>
<td>Interior Design Sales</td>
<td>3</td>
<td>IDES 324 with a grade of “C” or better.</td>
<td>54 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 330</td>
<td>Beginning Interior Design Studio</td>
<td>3</td>
<td>IDES 330 with a grade of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 332</td>
<td>Interior Illustration and Rendering</td>
<td>3</td>
<td>IDES 330 with a grade of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 334</td>
<td>Interior Environment and Space Planning</td>
<td>3</td>
<td>IDES 330 with a grade of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 340</td>
<td>Beginning CADD for Interior Design</td>
<td>3</td>
<td>IDES 330 with a grade of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 341</td>
<td>Intermediate CADD for Interior Design</td>
<td>3</td>
<td>IDES 340 and 354 with a grade of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 342</td>
<td>CADD for Kitchen and Bath Design</td>
<td>2</td>
<td>IDES 340 with a grade of “C” or better.</td>
<td>24 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 345</td>
<td>Codes and Universal Access for Interior Design</td>
<td>2</td>
<td>IDES 334 and 350 with a grade of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 351</td>
<td>Codes and Universal Access Lab</td>
<td>1</td>
<td>IDES 334 and 350 with a grade of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 335</td>
<td>Residents: Designed 4 Life</td>
<td>3</td>
<td>IDES 330, IDES 350 with grades of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 361</td>
<td>Beginning Kitchen Design</td>
<td>3</td>
<td>IDES 330 and 354 with grades of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
<tr>
<td>IDES 362</td>
<td>Advanced Kitchen Design</td>
<td>3</td>
<td>IDES 361 with a grade of “C” or better.</td>
<td>36 hours LEC;</td>
<td></td>
</tr>
</tbody>
</table>

- **IDES 330 Beginning Interior Design Studio** (3 Units) - This course covers basic manual drafting and presentation techniques for interior designers. Topics include development of floor plans, furniture arrangements, and elevations for interior space planning. Presentation boards and other methods of presentation are explored.
- **IDES 332 Interior Illustration and Rendering** (3 Units) - This course covers procedures for developing finished presentation drawings and boards for interior design. It includes methods for illustrating plan views, elevations, mechanical and free-hand perspectives to scale, shades, shadows and techniques for color application.
- **IDES 334 Interior Environment and Space Planning** (3 Units) - This course covers the analysis and application of design concepts and space planning techniques. It includes resources necessary to creatively solve problems relative to the function and quality of human environments. Topics include the integration of barrier-free design, the Americans with Disabilities Act (ADA), resource management and environmental psychology design. Field trips are required.
- **IDES 340 Beginning CADD for Interior Design** (3 Units) - This course employs beginning CADD (computer and drafting design) for interior design projects. Floor plans, space planning, elevations, and perspectives are created. Field trips are required.
- **IDES 341 Intermediate CADD for Interior Design** (3 Units) - 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 viewports, adding attributes, and the creation of customized tool bars. Field trips are required.
- **IDES 342 CADD for Kitchen and Bath Design** (2 Units) - This kitchen and bath course explores the technical aspects of creating interior design construction documents using Computer Aided Drafting and Design (CADD) software. This advanced CADD course uses software specifically for the kitchen and bath industry. Remodels as well as new construction are included. Field trips are required.
- **IDES 345 Reading Construction Documents** (2 Units) - This course covers the language of construction documents and specifications including symbols, conventions, scales, nomenclature, contract documents, specifications and uniform building codes.
- **IDES 351 Codes and Universal Access Lab** (1 Unit) - This course covers procedures for developing presentation drawings and boards for interior design. It includes methods for illustrating plan views, elevations, mechanical and free-hand perspectives to scale, shades, shadows and techniques for color application.
- **IDES 355 Residents: Designed 4 Life** (3 Units) - This course covers how to successfully design residences for a variety of users, regardless of age, size and physical abilities or limitations. This course also encompasses specialty and adaptive appliances, plumbing fixtures, cabinetry, appropriate finish materials, space planning, as well as other related topics. Field trips are required.
- **IDES 361 Beginning Kitchen Design** (3 Units) - This course covers the design of efficient and aesthetic kitchens. Space considerations, equipment, materials, building codes and human factors are included. This course facilitates the needs of those trying to pass the National Kitchen and Bath Association (NKBA) certification exam. Field trips are required.
- **IDES 362 Advanced Kitchen Design** (3 Units) - This course is a continuation of IDES 361. It refines the skills needed to design efficient and aesthetically pleasing kitchens. Designing for clients with special needs, working with challenging spaces, and theme design are covered. Residential lighting is included. This course facilitates the needs of those trying to pass the National Kitchen and Bath Association certification exam. Field trips are required.
IDES 375  Beginning Bath Design     3 Units
Prerequisite: IDES 330 and 350 with grades of “C” or better.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces the design of efficient and aesthetic bathrooms. Space consideration, equipment, appropriate materials, building codes and other design considerations are included. This course facilitates the needs of those trying to pass the National Kitchen and Bath Association certification exam. Field trips are required.

IDES 376  Advanced Bath Design     2 Units
Prerequisite: IDES 375 with a grade of “C” or better.
Course Transferable to CSU
Hours: 24 hours LEC; 36 hours LAB
This course is a continuation of IDES 375. It refines the skills needed to design efficient and aesthetically pleasing bathrooms. Designing for clients with special needs, working with challenging spaces, and theme design are covered.

IDES 494  Topics in Interior Design     2-4 Units
Advisory: CISC 300; ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
Course Transferable to CSU
Hours: 72 hours LEC
This course is designed to provide an opportunity to study topics in Interior Design not included in current course offerings. Examples include kitchen & bath design; barrier-free design; in depth period style design. May be taken 3 times up to a maximum of 6 units without duplication of topics.

IDES 497  Internship in Interior Design     3 Units
Prerequisite: Internship placement and IDES 300, 310, 312, 322, 324, 332, 334, 351, and 354 with a grade of “C” or better.
Advisory: CISC 300.
Course Transferable to CSU
Hours: 18 hours LEC; 160 hours LAB
This course provides opportunity for supervised job internships at interior design related work sites. Skills and knowledge obtained in Interior Design courses will be utilized. Assistance for the internship search is provided by the program coordinator, but placement is not guaranteed. The lecture portion only may be offered on-line.

IDES 498  Work Experience in Interior Design     1-4 Units
Prerequisite: IDES 341, 362, and 376 with grades of “C” or better.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 18 hours LEC; 300 hours LAB
This course provides supervised work experience in interior design and home furnishing placements. Students work in furniture stores, or with designers and design establishments. Essential aspects of the home furnishing trade are covered. Job placement is not guaranteed but assistance is provided by the coordinator. Field trips are required.
American River College Catalog 2008-2009

<table>
<thead>
<tr>
<th>Area:</th>
<th>Humanities</th>
<th>Degree:</th>
<th>A.A. - Journalism and Mass Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean:</td>
<td>Lisa Aguilera Lawrenson</td>
<td>Phone:</td>
<td>(916) 484-8653</td>
</tr>
<tr>
<td>Counseling:</td>
<td>(916) 484-8572</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Journalism and Mass Communication Degree

This program is a comprehensive exposure to mass communication and communications media. Students learn the inner workings of a variety of media, including print, broadcast and Web. Courses cover all areas of news writing, public relations, graphics, design, photojournalism, and newspaper and Web production.

### Career Opportunities

This program gives students the opportunity to prepare for entry-level positions as writers, reporters, photographers, designers, copy editors, and fact checkers for small- and mid-size newspapers, newsletters, or magazines; newsletter or in-house publication writers, editors, and designers; copy editors for all communications media; technical writers or editors; desktop publishers or designers; or other positions that include writing, editing, photography, and/or page layout and design.

### Requirements for Degree 32 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 411</td>
<td>History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>BUS 345</td>
<td>Law and Society</td>
<td>3</td>
</tr>
<tr>
<td>POLS 332</td>
<td>History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 300</td>
<td>Introduction to Philosophy (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 310</td>
<td>Introduction to Ethics (3)</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 300</td>
<td>Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 301</td>
<td>Advanced Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 305</td>
<td>Publications Production Skills Lab (0.5 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 310</td>
<td>Mass Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 311</td>
<td>Race and Gender in the Media</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 320</td>
<td>Public Relations Media Techniques</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 330</td>
<td>Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 340</td>
<td>Race and Gender in the Media</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 350</td>
<td>Writing for Broadcasting</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

### JOUR 150 Public Relations Media Techniques 3 Units

**Hours:** 54 hours LEC

Study of public relations techniques; scientific polling techniques and their practical application to various projects, and the role of public relations in business, education, entertainment, social service and other fields.

### JOUR 300 Newswriting and Reporting 3 Units

**Advisory:** Ability to keyboard  
**General Education:** AA/AS Area II(b)  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC

This course covers evaluating, gathering and writing news in accepted journalistic style under newsroom conditions. It includes personal interviews, speeches, meetings, and other event coverage. The role of the reporter and the legal and ethical issues related to reporting are also examined.

### 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, with emphasis on research in depth, critical analysis and story format.

### JOUR 310 Mass Media and Society 3 Units

**General Education:** AA/AS Area V(b); CSU Area D7  
**Course Transferable to UC/CSU**  
**Hours:** 54 hours LEC

This course is a survey of the mass media: history, philosophy, structure and trends, as well as the theories which help to explain effects and importance as social institutions. It includes an exploration of economics, technology, law, ethics and social issues, including cultural and ethnic diversity.

### JOUR 320 Race and Gender in the Media 3 Units

**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 documenter of social change.

### JOUR 350 Writing for Broadcasting 3 Units

Prerequisite: JOUR 300, ability to type.  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC

Theory and technique of writing for the broadcast media. Includes reporting for radio and television news, writing and storyboarding commercials and public service programming, and an introduction to production techniques. Recommended for students who plan to work in broadcasting, instructional media and related fields.
JOUR 360 Photojournalism 3 Units
Prerequisite: ART 411.
Course Transferrable to CSU
Hours: 36 hours LEC; 54 hours LAB
Theory and technique of telling stories with pictures, including the technical aspects of camera and darkroom, composition, lighting and an introduction to the role of the photojournalist and pertinent legal and ethical issues.

JOUR 401 College Newspaper Production 2 Units
Prerequisite: JOUR 300 with a grade of “C” or better.
Course Transferrable to CSU
Hours: 108 hours LAB
This course provides weekly deadline experience in research and analysis, writing, editing, photography and design phases of the campus’ student newspaper. It includes desktop publishing and digital photo-imaging. It may be taken four times for credit. Some universities limit transfer credit; see the department adviser or your counselor.

JOUR 404 Editing and Production 3 Units
Advisory: JOUR 300.
Course Transferrable 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 405 Publications Production Skills Lab .5-3 Units
Corequisite: JOUR 404.
Advisory: JOUR 300.
Course Transferrable to CSU
Hours: 162 hours LAB
This course provides applicable skills to enhance editing and production skills learned in JOUR 404. It also includes instruction in photo illustrations, infographics, typography and project management. May be taken 4 times for credit.
Legal Assisting Degree

The Legal Assisting degree is a two year A.A. degree. The program includes general education requirements in addition to legal specialty classes. Legal courses cover basic substantive and procedural areas including civil litigation, legal research and legal writing, contracts and torts in preparation for an entry level position as a legal assistant. The associate degree program is in full compliance with California Business and Professions Code section 6450 regarding preparation for work in this field.

Career Opportunities

Career opportunities for Legal Assistants have an excellent outlook. According to the US Department of Labor’s Job Outlook, legal assistant jobs are projected to grow faster than average through 2012. This translates to an increase of 21% to 35%.

Legal assistants find employment in both the State and Federal government as well as private practice and corporate settings.

Requirements for Degree 30 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>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 for Legal Assistants</td>
<td>3</td>
</tr>
<tr>
<td>LA 320</td>
<td>Legal Research</td>
<td>3</td>
</tr>
<tr>
<td>LA 321</td>
<td>Legal Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>And a minimum of 12 units from the following:</td>
<td>12</td>
</tr>
<tr>
<td>LA 330</td>
<td>Family Law and Procedure (3)</td>
<td></td>
</tr>
<tr>
<td>LA 332</td>
<td>Administrative Law and Procedure (3)</td>
<td></td>
</tr>
<tr>
<td>LA 334</td>
<td>Criminal Law and Procedure (3)</td>
<td></td>
</tr>
<tr>
<td>LA 340</td>
<td>Techniques of Interview (1)</td>
<td></td>
</tr>
<tr>
<td>LA 342</td>
<td>Evidence (3)</td>
<td></td>
</tr>
<tr>
<td>LA 350</td>
<td>Law Office Management (3)</td>
<td></td>
</tr>
<tr>
<td>LA 360</td>
<td>Corporations Law (3)</td>
<td></td>
</tr>
<tr>
<td>LA 362</td>
<td>Estate Planning and Probate Procedure (3)</td>
<td></td>
</tr>
<tr>
<td>LA 364</td>
<td>Landlord Tenant Law (3)</td>
<td></td>
</tr>
<tr>
<td>LA 366</td>
<td>Basic Bankruptcy Law (3)</td>
<td></td>
</tr>
<tr>
<td>LA 368</td>
<td>Workers’ Compensation Law (3)</td>
<td></td>
</tr>
<tr>
<td>LA 497</td>
<td>Internship in Legal Assisting (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>

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.

Introduction to Law and Legal Research Certificate

This certificate is designed to meet the minimum educational requirements of the State of California for the position of Legal Assistant within the state employment structure. Completion of the two required courses with a grade of “C” or better will qualify the student for this certificate.

Requirements for Certificate 6 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>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 320</td>
<td>Legal Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Law Office Assistant Certificate

This certificate provides the skills needed for entry-level clerical positions in law offices. The course work emphasizes workforce skills including an introduction to the use of terms particular to the legal field.

Career Opportunities

Typical career opportunities are entry-level clerical positions in a law office.

Requirements for Certificate 12-16 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>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 350</td>
<td>Law Office Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 100</td>
<td>Keyboarding Skills (1-3)</td>
<td>1-3</td>
</tr>
<tr>
<td>BUSTEC 300</td>
<td>Beginning Keyboarding/Applications (1-3)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 122</td>
<td>Workplace Behavior and Communication Technologies</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>

*1A total of 3 units from these courses must be taken.  
*2Must be taken for 3 units.

Legal Assisting Certificate

The Legal Assisting 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. The certificate program is in full compliance with California Business and Professions Code section 6450 regarding preparation for work in this field.

Career Opportunities

Career opportunities for Legal Assistants have an excellent outlook. According to the US Department of Labor’s Job Outlook legal assistant jobs are projected to grow faster than average through 2012. This translates to an increase of 21% to 35%.

Legal Assistants find employment in both the State and Federal government as well as private practice and corporate settings.

Enrollment Eligibility

The student must possess an A.A. degree or higher from a regionally accredited institution to be eligible for the certificate.
LA 300  Introduction to Law and the American Legal System 3 Units
Same As: None.
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.
Course Transferable to CSU
Hours: 54 hours LEC
This is an introductory course to 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 314.
Advisory: ENGWR 300 or ESLW 340.
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to the California legal system with emphasis on understanding the practical aspects of litigation and the proper procedures required by statutes and rules of court. The phases of California court procedure, including State and Federal constitutional limitations, jurisdiction, venue, pleadings, and motions will be covered. The course 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.
Advisory: ENGWR 300 or ESLW 340.
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 preparation, and witness and trial preparation.
LA 342  Evidence  3 Units
Advisory: LA 310.
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed to familiarize the legal assistant with the rules for the admission of evidence in federal and state courts.

LA 350  Law Office Management  3 Units
Prerequisite: LA 300 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the legal assistant’s role in law office management. Law office accounting, time and records management and communication skills are examined. Legal ethics, career development and coping with stress are also discussed.

LA 360  Corporations Law  3 Units
Advisory: LA 300; ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320, ESLW 103 or placement through assessment process.
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the legal assistant to corporation terminology and legal requirements governing corporations.

LA 362  Estate Planning and Probate Procedure  3 Units
Prerequisite: LA 300 and 320 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to estate planning and the manner in which property may be held and ways it can be transferred. Testate and intestate probate procedures will also be included.

LA 364  Landlord Tenant Law  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on the most common types of landlord-tenant disputes. Litigation and non-litigation matters covered.

LA 366  Basic Bankruptcy Law  3 Units
Advisory: Legal Assisting 332; ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.
Course Transferable to CSU
Hours: 54 hours LEC
This course serves as a basic primer related to the practical aspects of representing debtors or creditors within the bankruptcy system.

LA 368  Workers’ Compensation Law  3 Units
Advisory: LA 300 and LA 312.
Course Transferable to CSU
Hours: 54 hours LEC
This course provides an overview of the Workers’ Compensation Law in California. The focus will be on the procedural aspects of handling a Workers’ Compensation claim from both the applicant’s side and the defense side.

LA 497  Internship in Legal Assisting  2-4 Units
Prerequisite: LA 300, 310, and 320 with a grade of “C” or better.
Corequisite: Maintain a minimum of seven (7) units.
Course Transferable to CSU
Hours: 18 hours LEC, 225 hours LAB
This is a course of supervised work experience in law firms or public agencies available to legal assisting students. May be taken twice for credit for a maximum of 4 units.
Library courses develop the skills necessary to conduct academic and personal research.

**LIBR 302  Basic Library Skills  1 Unit**

*Course Transferable to UC/CSU*

*Hours: 18 hours LEC*

This survey course is an introduction to library skills. It examines how information is organized, introduces library services and resources, and teaches basic search strategies when using print and electronic sources. Access to and use of an academic library is 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: LIBR 302*

*General Education: AA/AS Area III(b)*

*Course Transferable to UC/CSU*

*Hours: 18 hours LEC*

This course provides the information competency skills necessary to conduct academic or personal research. It offers a step-by-step guide to the research process that is applicable to term papers, course work, and life-long learning.

**LIBR 320  Introduction to Internet Research  1 Unit**

*Course Transferable to CSU*

*Hours: 18 hours LEC*

This course provides an introduction to the Internet as an information and resources search tool for academic and personal use. It includes a brief history of the Internet, as well as various skills and strategies for locating, retrieving and evaluating information from the Internet. Topics include basic Internet navigation techniques, search tools, website evaluation criteria, searching strategies and ethical/legal issues involving the Internet.

**LIBR 325  Internet Research Skills  3 Units**

*Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; and CISC 300.*

*General Education: AA/AS Area III(b)*

*Course Transferable to UC/CSU*

*Hours: 54 hours LEC*

This course is a comprehensive survey of 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, online databases, email, newsgroups, listservs, blogs and the deep web. Database search strategies and techniques are covered. Historical and social issues surrounding the Internet are also discussed.

**LIBR 494  Topics in Library Science  .5-4 Units**

*Course Transferable to CSU*

*Hours: 72 hours LEC*

This course provides an opportunity to study current topics in library science that are not included in existing courses. It may be taken four times for a maximum of six units, providing there is no duplication of topics.
Management Degree

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.

Requirements for Degree 33-34 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting</td>
<td>3-4</td>
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<tr>
<td>or ACCT 301</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Business Economics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 360</td>
<td>Management Communication</td>
<td>3</td>
</tr>
<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 362</td>
<td>Techniques of Management</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 304</td>
<td>Introduction to Management Functions</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</td>
<td>Human Relations and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
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<td>3</td>
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<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td>1</td>
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<tr>
<td>CISA 305</td>
<td>Introduction to Word/Information Processing</td>
<td>1-3</td>
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<tr>
<td>CISA 315</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 340</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
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<tr>
<td>Any management course</td>
<td></td>
<td></td>
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<tr>
<td>And a minimum of 6 units from the following:</td>
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<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</td>
<td>1</td>
</tr>
<tr>
<td>BUS 214</td>
<td>Financing a Small Business</td>
<td>1</td>
</tr>
<tr>
<td>BUS 218</td>
<td>Management Skills for the Small Business</td>
<td>1</td>
</tr>
<tr>
<td>BUS 220</td>
<td>Retailing and Merchandising for the Small Business</td>
<td>1</td>
</tr>
<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

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

Management Certificate

This program is designed for those who wish to progress from entry-level positions in management and related areas. Topics include human resources, business law, management communication, and organizational behavior.

Requirements for Certificate 24 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>Introduction to Management Functions</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 308</td>
<td>Personnel and Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 360</td>
<td>Management Communication</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</td>
<td>Human Relations and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
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<td>3</td>
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<tr>
<td>CISC 300</td>
<td>Computer Familiarization</td>
<td>1</td>
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<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 103</td>
<td>Intermediate Accounting - Part I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 210</td>
<td>The Business Plan</td>
<td>1</td>
</tr>
<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses</td>
<td>1</td>
</tr>
<tr>
<td>BUS 214</td>
<td>Financing a Small Business</td>
<td>1</td>
</tr>
<tr>
<td>BUS 216</td>
<td>Essential Records for the Small Business</td>
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</tr>
<tr>
<td>BUS 218</td>
<td>Management Skills for the Small Business</td>
<td>1</td>
</tr>
<tr>
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<td>Retailing and Merchandising for the Small Business</td>
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<td>Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 110</td>
<td>Business Economics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 174</td>
<td>Social Responsibility and Ethics in Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management</td>
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<td>MGMT 362</td>
<td>Techniques of Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Professionally</td>
<td>3</td>
</tr>
</tbody>
</table>

Modern Management Degree

The Modern Management degree program centers around the management functions essential to building world class organizations in today's diverse and complex environments. The focus of the program is customer service and includes the elements of effective planning, systems design, development, measurement and improvement, statistical analysis, teamwork and leadership. It includes the study of physics, statistics, ethics, business communications, accounting principles, organizational psychology and the fundamental of personnel management.

Requirements for Degree 37-38 Units

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
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<td>or ACCT 301</td>
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<td>Business Economics</td>
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<td>or ECON 302</td>
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<td>3</td>
</tr>
<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 320</td>
<td>Modern Management: Variation and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 330</td>
<td>Teams and Team Facilitation</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 340</td>
<td>Management and Systems Thinking</td>
<td>3</td>
</tr>
<tr>
<td>MKT 350</td>
<td>Organizational Learning: Theory of Knowledge</td>
<td>3</td>
</tr>
</tbody>
</table>
**Modern Management Certificate**

The Modern Management certificate focuses on the management functions essential to building world class organizations in today's diverse and complex environments. This certificate focuses on the process of customer satisfaction with emphasis on the development of effective planning, systems design, statistical analysis, teamwork and leadership. It includes the study of physics, statistics, ethics, and organizational psychology.

**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>MGMT 300</td>
<td>Introduction to Modern Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 320</td>
<td>Modern Management: Variation and Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 330</td>
<td>Teams and Team Facilitation</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 340</td>
<td>Management and Systems Thinking I</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 350</td>
<td>Organizational Learning: Theory of Knowledge</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 310</td>
<td>Introduction to Ethics</td>
<td>3</td>
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<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 383</td>
<td>Introduction to Organizational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>STAT 301</td>
<td>Introduction to Probability and Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Leadership in Action: Systems Thinking Certificate**

The Leadership in Action: Systems Thinking 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.

**Requirements for Certificate**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 340</td>
<td>Management and Systems Thinking I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Leadership in Action: Theory of Knowledge/Prediction Certificate**

The Leadership in Action: Theory of Knowledge/Prediction 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.

**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>MGMT 300</td>
<td>Introduction to Modern Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 350</td>
<td>Organizational Learning: Theory of Knowledge</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 315</td>
<td>Ethics and Morals in Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**Leadership in Action: Psychology and Team Facilitation Certificate**

The Leadership in Action: Psychology and Team Facilitation 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.

**Requirements for Certificate**

<table>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 320</td>
<td>Modern Management: Variation and Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 301</td>
<td>Introduction to Probability and Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Associate Degree Requirements:** The Modern 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.
MGMT 120 Self-Leadership for Personal Excellence, Module A  1 Unit
Hours: 18 hours LEC
This course is designed as an introduction for those who are interested in examining the practical application of self-leadership tools. It explores introductory concepts in the areas of leadership, external and personal factors, the impact of beliefs, the power of self-rewards, imagination and creativity. This course emphasizes the connection between effective self-leadership and effective leadership of others.

MGMT 121 Self-Leadership for Personal Excellence, Module B  1 Unit
Hours: 18 hours LEC
This course is designed as a continuation for those who are interested in examining the practical application of self-leadership tools. It expands the areas of the sources of leadership, external and personal factors, the impact of beliefs, the power of self-rewards, imagination and creativity, and introduces the concepts of team self-leadership, and the application of tools to empower change. This course emphasizes the connection between effective self-leadership and effective leadership of others.

MGMT 122 Self-Leadership for Personal Excellence, Module C  1 Unit
Hours: 18 hours LEC
This course is the last in a series of courses designed for those who are interested in examining the practical application of self-leadership tools. It further explores the areas of the sources of leadership, external and personal factors, the impact of beliefs, the power of self-rewards, imagination and creativity, team self-leadership, and the application of tools to empower change. This course will validate and reinforce the need for individuals to assist attendees in applying the examined principles to influence their own life and career. This course emphasizes the connection between effective self-leadership and effective leadership of others.

MGMT 142 Project Management Techniques and Software  3 Units
Same As: CISA 160
Advisory: ENGRD 116 or ESLW 320
Hours: 54 hours LEC
This is an introductory course covering the responsibilities of a project manager. It includes the knowledge needed to manage a project, control costs and schedule resources. It will also introduce the use of project management software to track project resources, tasks and milestones. Not open to students who have taken CISA 160.

MGMT 174 Social Responsibility and Ethics in Management  3 Units
Corequisite: MGMT 300
General Education: AA/AS Area V(b)
Hours: 54 hours LEC
This course examines the new ethical climate, the problems which need to be confronted and analyzed; and the role integrity plays in the survival and productivity of American organizations in both the private and public sectors. Course work and studies will incorporate daily news events as well as text materials.

MGMT 294 Topics in Management .5-5 Units
Prerequisite: To be determined with each topic.
Hours: 90 hours LEC; 125 hours LAB
This is an individualized course developed in cooperation with industry and/or government to meet specialized training needs.

MGMT 300 Introduction to Modern Management  3 Units
Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLW 320 and ESLW 320.
Course Transferable to CSU
Hours: 54 hours LEC
This course examines the underlying principles and practices of modern management, and how both individuals and organizations can implement them. Such concepts as Continuous Process Improvement, Total Quality Management, and Customer Focused Management are presented.

MGMT 304 Introduction to Management Functions  3 Units
Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116, or ESLW 320 and ESLW 320 or placement through assessment.
Course Transferable to CSU
Hours: 54 hours LEC
This is a basic course in management that introduces a variety of modern management concepts. This course includes the basic management functions of planning, organization, staffing, leadership and control. In addition, such concepts as team development, communication, business ethics, and global management perspectives will be discussed.

MGMT 308 Personnel and Human Resources Management  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to the complex study and analysis of such areas as civil rights, labor law, the “Human Resources” organization and various management theories currently found in both public and private sector organizations.

MGMT 320 Modern Management: Variation and Statistics I  3 Units
Prerequisite: MGMT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course continues the extension of the basic business statistical knowledge introduced in MGMT 300, with a focus on understanding variation, variation patterns, and how statistical tools can be used to improve existing processes. It also focuses on the support and use of Statistical Process Control (SPC). Emphasis is placed on the immediate application of the tools to the workplace, emphasizing administrative, white collar environments. Course requires team participation.

MGMT 330 Teams and Team Facilitation  3 Units
Prerequisite: MGMT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course continues the expansion of the basic business knowledge of teams introduced in MGMT 300. It focuses on practical application of the knowledge and tools of metalinguistics and individual/group psychological character. Emphasis is placed on the immediate application of the tools to the work place, emphasizing administrative, white collar environments. Course requires team participation outside of class.
MGMT 340 Management and Systems Thinking I  
3 Units
Prerequisite: MGMT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on the extension of the basic business knowledge of systems. It is based on practical application of the knowledge and tools of Systems Thinking. Essential Process Analysis/Synthesis is used as the tool for appraising and revising the design and delivery of administrative and service products offerings. Emphasis is also placed on the tools of Fuzzy Thinking, and the theory of Living Systems in the workplace. The need to recognize/counter the main obstacle to systems change, fear, is also closely examined. Course requires team participation outside of class.

MGMT 350 Organizational Learning: Theory of Knowledge  
3 Units
Prerequisite: MGMT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course continues the study of “Profound Knowledge”, as described by Dr. W. Edwards Deming. It focuses on the Theory of Knowledge, customer service, and organization leadership based on integrity. It emphasizes basic team formation/member psychology and the total quality impact in society, the organization, the team, and individual lives.

MGMT 351 Modern Management: Theory of Knowledge II: Organizational Implementation  
3 Units
Prerequisite: MGMT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This class continues the expansion of the attendees understanding and ability to utilize the concept of “Profound Knowledge” as described by Dr. W. Edwards Deming. The class focuses of the Theory of Knowledge (the ability to make accurate predictions of system activity), the formation of the “New Leadership” in executive teams, and the importance of developing an internal education/training effort using the newest principles of Action Learning as practiced by many Fortune 500 companies.

MGMT 360 Management Communication  
3 Units
Advisory: BUS 110, ENGWR 102, or ENGWR 103, and ENGRD 116; or ESLR 320 and ESLW 320
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 an organization through the effective methods of communication.

MGMT 362 Techniques of Management  
3 Units
Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116; or ESLR 320 and ESLW 320; or placement through assessment.
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. The course provides a clear understanding of management tasks as well as skill development in essential management activities.
### Marketing Degree

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.

#### Requirements for Degree 41-42 Units

<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>
<td></td>
</tr>
<tr>
<td>BUS 110</td>
<td>Business Economics (3)</td>
<td></td>
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<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>
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<tr>
<td>BUS 310</td>
<td>Business Communications</td>
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<td>BUS 340</td>
<td>Business Law</td>
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<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
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<tr>
<td>MGMT 300</td>
<td>Introduction to Modern Management (3)</td>
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<tr>
<td>or MGMT 304</td>
<td>Introduction to Management Functions (3)</td>
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</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Professionally</td>
<td></td>
</tr>
<tr>
<td>MKT 312</td>
<td>Retailing</td>
<td></td>
</tr>
<tr>
<td>MKT 314</td>
<td>Advertising</td>
<td></td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
<td></td>
</tr>
</tbody>
</table>

**And a minimum of 7 units from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 320</td>
<td>Concepts in Personal Finance (3)</td>
<td></td>
</tr>
<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 160</td>
<td>Project Management Techniques and Software (3)</td>
<td></td>
</tr>
<tr>
<td>or MGMT 142</td>
<td>Project Management Techniques and Software (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management (1)</td>
<td></td>
</tr>
<tr>
<td>CISA 330</td>
<td>Desktop Publishing</td>
<td></td>
</tr>
<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 308</td>
<td>Personnel and Human Resources Management (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 372</td>
<td>Human Relations and Organizational Behavior (3)</td>
<td></td>
</tr>
</tbody>
</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

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.

#### Career Opportunities

Sales, copywriter, in-house communications, public relations, technical communications, media planner, media buyer.

### Retail Management Degree

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.

#### Career Opportunities

Buyer, department manager, store director, sales associate, account executive, merchandiser, sales manager.

### Requirements for Degree Major 39-40 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</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>
<td></td>
</tr>
<tr>
<td>ARTNM 324</td>
<td>Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 303</td>
<td>Graphic Design: Typography</td>
<td></td>
</tr>
<tr>
<td>BUS 110</td>
<td>Business Economics (3)</td>
<td></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 340</td>
<td>Business Law</td>
<td></td>
</tr>
<tr>
<td>CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>CISC 300</td>
<td>Computer Familiarization</td>
<td></td>
</tr>
<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems (3)</td>
<td></td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Professionally</td>
<td></td>
</tr>
<tr>
<td>MKT 312</td>
<td>Retailing</td>
<td></td>
</tr>
<tr>
<td>MKT 314</td>
<td>Advertising</td>
<td></td>
</tr>
</tbody>
</table>

**And a minimum of 3 units from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology (1)</td>
<td></td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing (1 - 3)</td>
<td></td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 331</td>
<td>Intermediate Desktop Publishing (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
<td></td>
</tr>
</tbody>
</table>

### 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.
And a minimum of 7 units from the following: ........................................ 7
BUS 330  Managing Diversity in the Workplace (3)
or BUS 105  Business Mathematics (3)
or BUS 224  Customer Service (1)
or BUS 214  Financing a Small Business (1)
or BUS 150  Retail/Wholesale Operations Management (3)
or BUS 210  The Business Plan (1)
or BUS 220  Retailing and Merchandising for the Small Business (1)
or BUS 350  Small Business Management/Entrepreneurship (3)
CISC 305  Introduction to the Internet (1)
or CISA 330  Desktop Publishing (2)
or CISA 320  Introduction to Database Management (1)
MGMT 372  Human Relations and Organizational Behavior (3)
or MGMT 362  Techniques of Management (3)
or MGMT 360  Management Communication (3)
or MGMT 308  Personnel and Human Resources Management (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.

Retail Management (WAFC) Certificate

The program gives an overview of the retail industry and the skills needed to succeed within this arena. It is designed to provide training for those wishing to be owners, managers, and employees of retail organizations. The Retail Management certificate meets the needs of industry leaders such as the Western Association of Food Chains (WAFC).

Career Opportunities

Buyer, department supervisor, store director, entrepreneur, customer service representative.

Requirements for Certificate 31-32 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 301</td>
<td>4</td>
</tr>
<tr>
<td>BUS 100</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 310</td>
<td></td>
</tr>
<tr>
<td>BUS 105</td>
<td>3</td>
</tr>
<tr>
<td>or CISA 305</td>
<td></td>
</tr>
<tr>
<td>CISC 315</td>
<td>2</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 308</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300</td>
<td>3</td>
</tr>
<tr>
<td>MKT 312</td>
<td>3</td>
</tr>
<tr>
<td>or SPEECH 321</td>
<td></td>
</tr>
</tbody>
</table>
| MKT 300 Principles of Marketing 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116, or ESLR 320 and ESLW 320, or placement through assessment. Course Transferable to CSU Hours: 54 hours LEC |
| This course will examine in detail the four functions of marketing: product, promotion, price, and place. The marketing concept will be the basis for the entire course. The external marketing factors of environment, competition, government regulation, and consumer behavior will be studied also. |

MKT 310 Selling Professionally 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116, ESLR 320 and ESLW 320, or placement through assessment; BUS 105. Course Transferable to CSU |
| Hours: 54 hours LEC |
| This course demonstrates the importance of effective selling techniques. This course will examine and present the qualifications necessary to achieve success in professional selling. This course also emphasizes the development of a business personality and its application to the approach, direction, and closing of a sale. Different types of selling experience such as direct, industrial, wholesale, and retail are covered. This class is recommended for those entering any field of business careers. |

MKT 312 Retailing 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116, ESLR 320 and ESLW 320 or placement through assessment; MKT 300. Course Transferable to CSU |
| Hours: 54 hours LEC |
| This course is a study of modern retail store operation with emphasis on consumer behavior, store location and layout, pricing, organization, promotion, merchandising, and pertinent legislation. |

MKT 314 Advertising 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320 or placement through assessment; MKT 300. Course Transferable to CSU |
| Hours: 54 hours LEC |
| This course is a study of the advertising promotional mix with special emphasis on the field of advertising. The course will cover the advertising message from initial research through the final advertising message. Different advertising media will be examined and compared. |

MKT 332 Advertising on the Internet (Electronic Commerce) 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320 or placement through assessment. |
| Course Transferable to CSU |
| Hours: 54 hours LEC |
| This course addresses the process of advertising in the electronic commerce environment. It focuses on discussing on-line marketing. The effects of electronic commerce on market research, demographics and traditional advertising channels and case studies of successful models will be studied and examined. |

MKT 300 Principles of Marketing 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116, or ESLR 320 and ESLW 320, or placement through assessment. Course Transferable to CSU |
| Hours: 54 hours LEC |
| This course will examine in detail the four functions of marketing: product, promotion, price, and place. The marketing concept will be the basis for the entire course. The external marketing factors of environment, competition, government regulation, and consumer behavior will be studied also. |

MKT 310 Selling Professionally 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116, ESLR 320 and ESLW 320, or placement through assessment; BUS 105. Course Transferable to CSU |
| Hours: 54 hours LEC |
| This course demonstrates the importance of effective selling techniques. This course will examine and present the qualifications necessary to achieve success in professional selling. This course also emphasizes the development of a business personality and its application to the approach, direction, and closing of a sale. Different types of selling experience such as direct, industrial, wholesale, and retail are covered. This class is recommended for those entering any field of business careers. |

MKT 312 Retailing 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116, ESLR 320 and ESLW 320 or placement through assessment; MKT 300. Course Transferable to CSU |
| Hours: 54 hours LEC |
| This course is a study of modern retail store operation with emphasis on consumer behavior, store location and layout, pricing, organization, promotion, merchandising, and pertinent legislation. |

MKT 314 Advertising 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320 or placement through assessment; MKT 300. Course Transferable to CSU |
| Hours: 54 hours LEC |
| This course is a study of the advertising promotional mix with special emphasis on the field of advertising. The course will cover the advertising message from initial research through the final advertising message. Different advertising media will be examined and compared. |

MKT 332 Advertising on the Internet (Electronic Commerce) 3 Units
| Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320 or placement through assessment. |
| Course Transferable to CSU |
| Hours: 54 hours LEC |
| This course addresses the process of advertising in the electronic commerce environment. It focuses on discussing on-line marketing. The effects of electronic commerce on market research, demographics and traditional advertising channels and case studies of successful models will be studied and examined. |
Mathematics Degree

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.

Requirements for Degree  25 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 400</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 401</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 402</td>
<td>Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 410</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 420</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:  3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 320</td>
<td>Symbolic Logic (3)</td>
</tr>
<tr>
<td>or PHIL 325</td>
<td>Symbolic Logic (3)</td>
</tr>
<tr>
<td>STAT 301</td>
<td>Introduction to Probability and Statistics (3)</td>
</tr>
</tbody>
</table>

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

This program provides a broad study in fields of physical science and mathematics. It provides a good foundation for transfer to a four-year program in science.

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

A minimum of 18 units from the following:  18

Transferable courses must be selected from the following areas: astronomy, chemistry, engineering, geology, mathematics, physical geography, physical science, physics, and statistics.

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.
MATH 110 Elementary Geometry 5 Units
Prerequisite: MATH 100 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 terms and definitions, properties of parallel lines and parallelograms, congruent and similar triangles, properties of triangles, right triangles, and basic trigonometry. Topics include properties of circles, construction of loci, areas, and volumes. The course also emphasizes problem solving strategies, elementary logic, and reading and writing proofs. AA/AS area 4C.

MATH 120 Intermediate Algebra 5 Units
Prerequisite: MATH 100 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 reviews and extends the concepts of elementary algebra with an emphasis on problem solving. Topics which are reviewed and extended include linear and quadratic equations, factoring polynomials, rational expressions, exponents, radicals, graphing, and systems of equations. New topics include graphs and their translations and reflections, functions, exponential and logarithmic functions, graphs of quadratic and polynomial functions, nonlinear systems of equations, polynomial and rational inequalities, and an introduction to conic sections.

MATH 294 Topics in Mathematics .5-.4 Units
Hours: 72 hours LEC
This course is designed to give students an opportunity to study topics in mathematics not included in current course offerings. Individualized topics are developed to foster, complement and build upon arithmetic, geometric and algebraic skills with an emphasis on critical thinking. The course may be taken four times for a maximum of 6 credits with no duplication of topics.

MATH 300 Introduction to Mathematical Ideas 3 Units
Prerequisite: MATH 120 with a grade of "C" or better
General Education: AA/AS Area II(b); CSU Area B4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course focuses on the problem-solving skills necessary to solve both real-life and nontraditional mathematics problems. Problem-solving strategies presented in this course include: drawing a diagram, eliminating possibilities, making a systematic list, looking for a pattern, guessing and checking, solving an easier related problem, working backward, algebraic representation, finite differences, and other related techniques. Divergent thinking, group work, and the clear presentation of mathematical work will be emphasized throughout the course.

MATH 310 Mathematical Discovery 3 Units
Prerequisite: MATH 110 and 120 with grades of "C" or better
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, and formulation and proof of conjectures. Topics from number theory, probability and statistics, and geometry will be investigated. Recommended for students interested in education.

MATH 315 Exploratory Field Experience in Mathematics 3 Units
Prerequisite: MATH 120 with a grade of "C" or better
General Education: AA/AS Area III(b)
Enrollment Limitation: Current TB clearance is required prior to work in schools. Fingerprinting may also be required.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is an education-based field experience in mathematics allowing students to explore teaching as a career choice. Students are assigned to area schools to observe and/or assist in a mathematics classroom. Students have the opportunity to learn and practice essential skills to assist younger students with their progress through the mathematics sequence, and to learn about social, cultural, and educational issues related to mathematics and the school environment. Weekly seminars allow students to share experiences and compare observations. This course is recommended for those who may wish to pursue a single-subject credential in mathematics.

MATH 320 Symbolic Logic 3 Units
Same As: PHIL 325
Prerequisite: PHIL 320 or MATH 110, and MATH 120 with a grade of "C" or better.
General Education: AA/AS Area II(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers an introduction to symbolic logic including the logic of sentences (the statement of calculus) and the logic of classes and relations (the predicate calculus) together with an introduction to the nature and development of deductive systems. Applications include examples of logic used in elementary mathematics and the analysis of verbal arguments. Not open to students who have completed PHIL 325.

MATH 325 Problem-Solving 3 Units
Prerequisite: MATH 120 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 problem-solving skills necessary to solve both real-life and nontraditional mathematics problems. Problem-solving strategies presented in this course include: drawing a diagram, eliminating possibilities, making a systematic list, looking for a pattern, guessing and checking, solving an easier related problem, working backward, algebraic representation, finite differences, and other related techniques. Divergent thinking, group work, and the clear presentation of mathematical work will be emphasized throughout the course.

MATH 330 Trigonometry 3 Units
Prerequisite: MATH 110 and 120 with grades of "C" or better
General Education: AA/AS Area II(b); CSU Area B4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course presents the fundamentals of trigonometry. Topics include definitions of trigonometric and circular functions, graphs, identities and applications. Other material covered includes solving trigonometric equations, solving triangles using the Laws of Sines and Cosines, vectors, polar coordinates and polar representations of complex numbers.

MATH 340 Calculus for Business and Economics 3 Units
Prerequisite: MATH 120 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: 54 hours LEC
This course is an introduction to differential and integral calculus with applications in the fields of business, economics, social science and biological science. It is not recommended for mathematics and physical science majors.
MATH 342 Modern Business Mathematics 3 Units
Prerequisite: MATH 120 with a grade of "C" or better
General Education: AAAS Area II(b); CSU Area B4
Course Transferable to 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.

MATH 344 Finite Mathematics 3 Units
Prerequisite: MATH 120 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; 18 hours LAB
This course covers sets, probability and combinatorics, expected value, matrix theory systems of equations and inequalities, linear programming, and mathematics of finance with emphasis on applications in business administration, biological sciences, and social science. It also includes computer applications.

MATH 350 Calculus for the Life and Social Sciences I 3 Units
Prerequisite: MATH 330 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 covers functions, limits, and derivatives, and introduces antiderivatives. Algebraic and computational techniques are emphasized in applications from business, and social and biological sciences. It is not recommended for math or engineering majors.

MATH 351 Calculus for the Life and Social Sciences II 3 Units
Prerequisite: MATH 350 with a grade of "C" or better
General Education: CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is the continuation of MATH 350. It covers integration and differentiation of commonly used functions and applications of analytic geometry and calculus.

MATH 360 Introduction to Scientific Graphing Calculators 1 Unit
Prerequisite: MATH 330 with a grade of "C" or better
Course Transferable to CSU
Hours: 18 hours LEC
This course introduces the basic functions and applications of scientific graphic calculators. It covers plotting, evaluating, and solving functions. It also discusses calculator-based solutions of problems from algebra and trigonometry; and introduces techniques that will be useful in subsequent courses like precalculus and calculus. A calculator of a model and type that will be specified by instructor is required.

MATH 370 Pre-Calculus Mathematics 5 Units
Prerequisite: MATH 330 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: 90 hours LEC
This course includes application and graphing of polynomial, logarithmic, exponential and trigonometric functions, as well as systems of linear and non-linear equations and inequalities. It also covers analytic geometry including straight lines, conic sections, graphing and curve sketching.

MATH 400 Calculus I 5 Units
Prerequisite: MATH 370 with a grade of "C" or better
Advisory: Students who took Precalculus in a non-college setting should confirm adequate preparation for Math 400 using ARC's Math Self-Assessment System
General Education: AAAS Area II(b); CSU Area B4; IGETC Area 2; TCSU MATH 210, MATH Sequence A
Course Transferable to UC/CSU
Hours: 90 hours LEC
This course is an introduction to differential and integral calculus. It includes limits, continuity, differentiation and integration of algebraic, trigonometric, logarithmic, exponential and other transcendental functions. Some applications are also included.

MATH 401 Calculus II 5 Units
Prerequisite: MATH 400 with a grade of "C" or better
General Education: CSU Area B4; IGETC Area 2; TCSUMATH 220, MATH Sequence A
Course Transferable to UC/CSU
Hours: 90 hours LEC
This course is a continuation of MATH 400. It includes techniques of integration, improper integrals, indeterminate forms, applications of integration, infinite series, parametric equations and polar coordinates.

MATH 402 Calculus III 5 Units
Prerequisite: MATH 401 with a grade of "C" or better
General Education: CSU Area B4; IGETC Area 2; TCSU MATH 250
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an introduction to linear algebra including matrices, determinants, vector spaces, linear transformations, and eigenvectors. It is intended for majors in mathematics, engineering, economics, science, and related fields.

MATH 404 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; TCSU MATH 250
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an introduction to linear algebra including matrices, determinants, vector spaces, linear transformations, and eigenvectors. It is intended for majors in mathematics, engineering, economics, science, and related fields.

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 with emphasis on linear equations and systems of linear equations. It includes infinite series and, Laplace transform and matrix methods of solution. It stresses applications to engineering problems. It is recommended for electrical, mechanical, industrial, ceramic, and petroleum engineers, and for mathematics and physical science majors.
MATH 481 Honors Applications of Calculus  1 Unit
Prerequisite: Cumulative GPA of 3.0 or better; MATH 402 with a grade of "C" or better, and ENGWR 300 or 480 with a grade of "C" or better.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course focuses on professional applications of mathematics in such fields as biomathematics, economics, political science, computer science, earth science, social sciences and psychology. AA/AS area 4C

MATH 1000 Individualized Mathematics  3-5 Units
Advisory: Determine or confirm placement using ARC’s Math Self-Assessment System.
Hours: 90 hours LEC
This program is an open-entry/open-exit, independent study approach for students wishing to take MATH 25 (Computational Arithmetic, 3 units), MATH 32 (Prealgebra, 3 units), MATH 100 (Elementary Algebra, 5 units), or MATH 120 (Intermediate Algebra, 5 units). During the first class meeting, students choose the specific course in which to enroll. For students who do not have a prerequisite, course placement should be determined by ARC’s on-line self-assessment system. Students who complete one course may advance immediately to the next one. Students may choose to complete a course in one semester (or less), or take up to two semesters. Unit credit is only awarded for the semester in which the course is completed. Students who receive a notation of "In Progress" must register in the same individualized course the following semester in order to complete the course and receive full unit credit. Computer-based instruction is an integral component. Work may be done on campus (computers available) or off campus (software runs on PC/Windows or Macintosh w/virtual PC software.

Statistics

STAT 301 Introduction to Probability and Statistics  3 Units
Prerequisite: MATH 120 with a grade of "C" or better
Advisory: ENGRD 116
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course will introduce basic concepts of probability and statistics. It will include analysis of data, probability, distributions, test of hypothesis, estimation, regression and correlation, and analysis of variance. Related applications to psychology, social science, natural science, business, and engineering will be explored. A scientific calculator that has a stat package (2-variable) is used throughout the course.

STAT 360 Introduction to Scientific Graphing Calculators for Statistics  1 Unit
Prerequisite: MATH 120 with a grade of "C" or better
Corequisite: STAT 301
Course Transferable to CSU
Hours: 18 hours LEC
This course introduces the basic statistics functions and applications of scientific graphing calculators with a statistics package. Topics include graphical representations of data, measures of position, probability, normal distributions, confidence intervals, hypothesis testing, and regression. A scientific graphing calculator of a model and type that will be specified by the instructor is required.
Boxes with dashed lines indicate courses available as Math 1000 in the Math Learning Center.
The music program 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. In addition, ARC provides degrees and certificates in commercial music, and a certificate in jazz studies. Performance opportunities in both vocal and instrumental music enhance a student’s understanding and skill levels.

**Music Degree**

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.

**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>
</tr>
</thead>
<tbody>
<tr>
<td>MUFHL 310</td>
<td>Survey of Music History and Literature</td>
</tr>
<tr>
<td>MUFHL 311</td>
<td>Survey of Music History and Literature</td>
</tr>
<tr>
<td>MUFHL 400</td>
<td>Music Theory</td>
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<tr>
<td>MUFHL 401</td>
<td>Music Theory</td>
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<td>MUFHL 410</td>
<td>Advanced Music Theory</td>
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<tr>
<td>MUFHL 411</td>
<td>Advanced Music Theory</td>
</tr>
<tr>
<td>MUFHL 420</td>
<td>Introduction to Musical Instrument Digital Interface (MIDI)</td>
</tr>
<tr>
<td>MUIVI 385</td>
<td>Jazz Styles and Improvisation</td>
</tr>
<tr>
<td>MUIVI 400</td>
<td>Beginning Jazz Piano</td>
</tr>
<tr>
<td>MUFHL 410</td>
<td>Advanced Music Theory</td>
</tr>
</tbody>
</table>

### Guitars/Pianists Concentration 34 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUP 310</td>
<td>Orchestra (2)</td>
</tr>
<tr>
<td>MUP 330</td>
<td>Concert Band (2)</td>
</tr>
<tr>
<td>MUP 340</td>
<td>Symphonic Band (2)</td>
</tr>
<tr>
<td>MUP 350</td>
<td>College Choir (2)</td>
</tr>
<tr>
<td>MUP 360</td>
<td>Chamber Singers (2)</td>
</tr>
</tbody>
</table>

### Instrumentalists Concentration 34 Units

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MUP 310</td>
<td>Orchestra (2)</td>
</tr>
<tr>
<td>MUP 330</td>
<td>Concert Band (2)</td>
</tr>
<tr>
<td>MUP 340</td>
<td>Symphonic Band (2)</td>
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</tbody>
</table>

### Vocalists Concentration 34 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MUP 350</td>
<td>College Choir (2)</td>
</tr>
<tr>
<td>MUP 360</td>
<td>Chamber Singers (2)</td>
</tr>
</tbody>
</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.

**Jazz Studies Degree**

The Jazz Studies degree provides a rigorous curriculum of jazz theory, history, performance groups, improvisation, piano, and individual applied instruction.

### Career Opportunities

The Jazz Program prepares a student for careers in performance (concert and studio), education, arranging/composing, and in the music industry. The degree also prepares students for transfer to a four-year institution.

#### Requirements for Degree 38 Units

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MUFHL 315</td>
<td>Jazz History</td>
</tr>
<tr>
<td>MUFHL 330</td>
<td>World Music</td>
</tr>
<tr>
<td>MUFHL 400</td>
<td>Music Theory</td>
</tr>
<tr>
<td>MUFHL 401</td>
<td>Music Theory</td>
</tr>
<tr>
<td>MUFHL 410</td>
<td>Advanced Music Theory</td>
</tr>
<tr>
<td>MUFHL 420</td>
<td>Beginning Jazz Theory</td>
</tr>
<tr>
<td>MUFHL 430</td>
<td>Jazz Styles and Improvisation</td>
</tr>
<tr>
<td>MUIVI 385</td>
<td>Beginning Jazz and Popular Vocal Styles (2)</td>
</tr>
<tr>
<td>MUIVI 400</td>
<td>Beginning Jazz Piano</td>
</tr>
<tr>
<td>MUIVI 420</td>
<td>Applied Music</td>
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<tr>
<td>MUIVI 421</td>
<td>Applied Music</td>
</tr>
<tr>
<td>MUIVI 425</td>
<td>Applied Music - Jazz</td>
</tr>
<tr>
<td>MUIVI 426</td>
<td>Applied Music - Jazz</td>
</tr>
<tr>
<td>MUSM 334</td>
<td>Introduction to Musical Instrument Digital Interface (MIDI)</td>
</tr>
</tbody>
</table>

**And a minimum of 8 units from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MUP 320</td>
<td>Jazz Band (2)</td>
</tr>
<tr>
<td>MUP 400</td>
<td>Vocal Jazz Ensemble (2)</td>
</tr>
</tbody>
</table>

**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**

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, record contracts, publishing agreements, artist management, promotion, and marketing.

### 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) ....................................................... 3
BUS 212 Marketing for Small Businesses (1) ................................... 3
BUS 214 Financing a Small Business (1) .......................................... 3
BUS 216 Essential Records for the Small Business (1) ...................... 3
BUS 218 Management Skills for the Small Business (1) ................. 3
BUS 220 Retailing and Merchandising for the Small Business (1) .... 3
BUS 224 Customer Service (1) ....................................................... 3
BUS 226 Loss Prevention and Security (1) ....................................... 3
BUS 228 Selling Techniques for the Small Business (1) ................. 3
BUS 230 QuickBooks (R) for Small Business (1) ......................... 3

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

The Commercial Music: Recording program provides students the
career skills needed to enter a career in audio engineering. Founda-
tional 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.

Career Opportunities

Typical career paths include recording engineer, broadcast en-
gineer, live sound reinforcement, post-production audio, sound
effects editor, multi-media/internet audio, and audio/music educa-
tion.

Requirements for Degree or Certificate 37 Units

BUS 350 Small Business Management/Entrepreneurship ............... 3
ET 302 Principles of Electricity and Electronics ............................. 3
MUFHL 321 Basic Musicianship ...................................................... 3
MUFHL 330 World Music .............................................................. 3
MUVI 340 Beginning Piano .......................................................... 2
MUSM 110 The Business of Music .................................................. 3
MUSM 120 Contemporary Songwriting ......................................... 3
MUSM 140 Concert Sound Reinforcement ..................................... 3
MUSM 334 Introduction to Musical Instrument Digital Interface (MIDI) 2
MUSM 342 Recording Studio Techniques ...................................... 3
MUSM 344 Recording Studio Techniques ...................................... 3
MUSM 350 Recording Studio Techniques ...................................... 3
MUSM 352 Recording Studio Techniques ...................................... 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.

Music Fundamentals / History and Literature

MUFHL 300 Introduction to Music 3 Units
Advisory: ENGRD 116 or ESLR 320; or placement through the assess-
ment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introductory examination of how composers and
songwriters exploit the various elements of music to heighten the
expressive impact of a composition. Aspects of melody, rhythm,
harmony, tone, and structure are studied through focused listening
of works from the Renaissance to contemporary styles of avant-garde
and popular music. This course requires no previous musical study.

MUFHL 308 Introduction to Music: Rock & Roll 3 Units
General Education: AA/AS Area I
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 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 is a survey of the history of music including its compo-
posers and most significant works from the beginning of history to the
Baroque period. It is required for music majors and also designed for
those students having a background in music and who are particu-
larly interested in humanities or arts.

MUFHL 311 Survey of Music History and Literature 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 is a survey of the history of music including its compo-
posers and most significant works from the Classical period to the
present. It is required for music majors and also designed for those
students having a background in music and who are particularly
interested in humanities or arts.

MUFHL 315 Jazz History 3 Units
Advisory: ENGRD 116 or ESLR 320; or placement through the assess-
ment process.
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 historical, comprehensive, and comparative listener
survey of the traditions of jazz music from around the world and
in the United States. Concepts of ethnicity, ethnocentrism, racism,
ageism, class differences, and gender issues are addressed. Guided
listening presentations show how African and early African American
musical traditions have led to the development of various improvisa-
tional forms and styles including: ragtime, swing, bebop, free jazz,
fusion, and acid jazz. Jazz styles of the Americas, Asia, Africa, India,
and Europe are covered.
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 is an introductory examination of the elements of music including scales, chords, aural skills, harmonic progression, form, notation, and composition. No previous musical study is required.

MUFHL 330 World Music  
**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.  
**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 Beat.” Concepts of ethnicity, ethnocentrism, racism, ageism, class differences, and gender issues are addressed. Music of the Americas, Africa, Asia, Australia and Europe are compared. No previous musical experience is required.

MUFHL 400 Music Theory  
**4 Units**

Prerequisite: Knowledge of musical notation  
Advisory: MUIVI 340  
**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 students with experience in the application of materials learned in class. It includes analysis and composition and is required for music majors.

MUFHL 401 Music Theory  
**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 and seventh chords, diatonic harmonies, part writing, rhythms, sight singing, ear training, dictation, form, history, and performance. It includes analysis and composition and is required for music majors.

MUFHL 410 Advanced Music Theory  
**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.

MUFHL 411 Advanced Music Theory  
**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 nineteenth- and twentieth-century writing techniques including: 9th, 11th and 13th chords; altered dominants; chromatic harmony; dodecaphony; set theory; aleatory; minimalism; and analysis techniques. Practice in rhythmic, melodic, harmonic and contrapuntal sight-singing, ear-training and dictation. This course is required for music majors.

MUFHL 420 Beginning Jazz Theory  
**2 Units**

Prerequisite: MUFHL 400 with a grade of “C” or better  
Advisory: MUIVI 385 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 analysis in the jazz idiom.

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 UC/CSU**  
**Hours:** 36 hours LEC; 18 hours LAB  
This course presents a continuation of jazz concepts presented in MUFHL 420. The emphasis is on advanced elements of jazz theory including composition and arranging, as well as harmonic, melodic, and formal analysis in the jazz idiom.

MUFHL 480 Honors Introduction to Music  
**3 Units**

Prerequisite: Cumulative GPA of 3.0 or above; ENGRD 300 or 480 with a grade of “C” or better  
**General Education:** CSU Area C1; IGETC Area 3A  
**Course Transferable to UC/CSU**  
**Hours:** 54 hours LEC  
This course is designed as a seminar for the student with previous experience with music notation, theory, and/or performance. Included in the course are (1) an analysis of the listening process and recognizing the roles of the composer, the performer and the listener, and (2) an evaluation of the intellectual and emotional elements of listening. This course will also cover the distinctions between the functional and aesthetic purposes of music. Attendance at live musical performances and field trips required.

MUIVI 310 Voice Class  
**2 Units**

**General Education:** CSU Area C1  
**Enrollment Limitation:** Student must be able to match pitch.  
**Course Transferable to UC/CSU**  
**Hours:** 36 hours LEC; 18 hours LAB  
This course emphasizes the development of the individual singer’s voice. Basic vocal techniques of breathing and mouth position are practiced. Solo repertoire is learned and performed in class.

MUIVI 311 Voice Class  
**2 Units**

Prerequisite: MUIVI 310 with a grade of “C” or better  
**Course Transferable to UC/CSU**  
**Hours:** 36 hours LEC; 18 hours LAB  
This course emphasizes the continued development of the individual singer’s voice. Topics include the International Phonetic Alphabet (IPA) and techniques of breathing and vowel formation. Solos are learned and performed in class.
MUIVI 320 Voice Class, Intermediate 2 Units
Prerequisite: MUIVI 311 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course emphasizes the continued development of the individual's voice. The course offers solo singers the opportunity to further develop the concepts begun in the first and second semesters of vocal study. Performances in class are required.

MUIVI 321 Voice Class, Intermediate 2 Units
Prerequisite: MUIVI 320 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course focuses on the practical application of bel canto technique with emphasis on English and Italian diction and literature. The course offers solo singers the opportunity to further develop the concepts begun in the first three semesters of vocal study. Performance in class is required.

MUIVI 340 Beginning Piano 2 Units
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course is designed for students interested in piano as a medium of expression and enjoyment, and for prospective nursery, kindergarten and elementary teachers. It is required for music majors who do not demonstrate equivalent piano proficiency.

MUIVI 341 Beginning Piano 2 Units
Prerequisite: MUIVI 340 with a grade of “C” or better, or ability to sight read an eight-measure composition with a single line in each hand and the ability to play I-IV-I-V7-I in five (5) major keys (C, G, F, D, A major).
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course is a continuation of MUIVI 340 and is designed for students interested in piano as a medium of expression and enjoyment, and for prospective nursery, kindergarten and elementary teachers. It is required for music majors who do not demonstrate equivalent piano proficiency. (CAN MUS 24)

MUIVI 345 Intermediate Piano 2 Units
Prerequisite: MUIVI 341 with a grade of “C” or better, or the ability to play major scales (one octave, hands together C, D, F, D, A, and E-major) and the ability to play a simple melody with basic choral accompaniment in a major or minor key.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course expands on the piano playing foundations of MUIVI 341 and includes further study of the harmonization of melodies, major and minor scales, and repertoire.

MUIVI 350 Intermediate Piano 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
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course provides instruction on the guitar with emphasis on rudiments of music, note reading, basic guitar chord technique and accompaniment figurations.

MUIVI 371 Intermediate Guitar 2 Units
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
Prerequisite: Ability to play a melodic instrument or ability to sight sing; ability to read music in a clef.
Advisory: MUFHL 400
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
This course offers intermediate studies in jazz and popular solo singing styles and repertoire including blues, rhythm and blues, pop, rock and country. This course may be taken twice for credit.

MUIVI 390 Beginning Jazz and Popular Vocal Styles 2 Units
Prerequisite: MUIVI 310 with a grade of “C” or better; or by audition
Course Transferable to CSU
Hours: 36 hours LEC; 18 hours LAB
This course offers instruction in the stylistic and performance elements of jazz and popular solo singing styles and repertoire including blues, rhythm and blues, pop, rock and country. This course may be taken twice for credit.

MUIVI 391 Intermediate Jazz and Popular Vocal Style 2 Units
Prerequisite: MUIVI 390 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 18 hours LAB
This course offers intermediate studies in jazz and popular solo singing styles. Topics included scat improvisation and singing in the following styles: Latin jazz, swing, funk, and blues. This course may be taken twice for credit.

MUIVI 400 Beginning Jazz Piano 2 Units
Prerequisite: MUIVI 340 with a grade of “C” or better
Advisory: MUFHL 400, MUFHL 420, and MUIVI 385
Course Transferable to 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. This course requires at least five hours per week outside preparation. This course may be taken twice for credit.
MUIVI 401 Intermediate Jazz Piano 2 Units
Prerequisite: MUIVI 400 with a grade of “C” or better
Advisory: MUFHL 420
Course Transferable to 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. This course requires at least five hours per week outside preparation. This course may be taken two times for credit.

MUIVI 420 Applied Music 1 Unit
Prerequisite: Audition.
Corequisite: Enrolled in 2 units from: MUP 310, 330, 340, 350, or 360 and enrolled in 4 units from: MUFHL 400, 401, 410, or 411.
Course Transferable to UC/CSU
Hours: 7 hours LEC, 191 hours LAB
This is the first course in a four-part series and offers individualized instrumental or vocal instruction seven hours per semester with a private instructor, two hours per semester of solo performance and recital attendance, and ten and one-half hours monitored practice time per week. It focuses on the development of individual performance skills and solo and ensemble repertoire. Juried performance is also required. Required for all traditional performance and jazz music majors.

MUIVI 421 Applied Music 1 Unit
Prerequisite: MUIVI 420 and audition.
Corequisite: Enrolled in 2 units from MUP 310, 330, 340, 350, or 360 and enrolled in 4 units from MUFHL 400, 401, 410, or 411.
Course Transferable to UC/CSU
Hours: 7 hours LEC, 191 hours LAB
This is the second course in a four-part series and offers individualized instrumental or vocal instruction seven hours per semester with a private instructor, two hours per semester of solo performance and recital attendance, and ten and one-half hours monitored practice time per week. It focuses on the development of individual performance skills and solo and ensemble repertoire. Juried performance is also required. Required for all traditional performance and jazz music majors.

MUIVI 422 Applied Music 1 Unit
Prerequisite: MUIVI 421 and audition.
Corequisite: Enrolled in 2 units from MUP 310, 330, 340, 350, or 360 and enrolled in 4 units from MUFHL 400, 401, 410, or 411.
Course Transferable to UC/CSU
Hours: 7 hours LEC, 191 hours LAB
This is the third course in a four-part series and offers individualized instrumental or vocal instruction seven hours per semester with a private instructor, two hours per semester of solo performance and recital attendance, and ten and one-half hours monitored practice time per week. It focuses on the development of individual performance skills and solo and ensemble repertoire. Juried performance is also required. Required for all traditional performance music majors.

MUIVI 423 Applied Music 1 Unit
Prerequisite: MUIVI 422 and audition.
Corequisite: Enrolled in 2 units from MUP 310, 330, 340, 350, or 360 and enrolled in 4 units from MUFHL 400, 401, 410, or 411.
Course Transferable to UC/CSU
Hours: 7 hours LEC, 191 hours LAB
This is the fourth course in a four-part series and offers individualized instrumental or vocal instruction seven hours per semester with a private instructor, two hours per semester of solo performance and recital attendance, and ten and one-half hours monitored practice time per week. It focuses on the development of individual performance skills and solo and ensemble repertoire. Juried performance is also required. Required for all traditional performance music majors.

MUIVI 425 Applied Music - Jazz 1 Unit
Prerequisite: MUIVI 421 and audition.
Corequisite: Enrolled in 4 units from MUFHL 400 or 401, or enrolled in 2 units from MUFHL 420 or 421; and enrolled in MUP 320, 400, or 424.
Course Transferable to UC/CSU
Hours: 7 hours LEC, 191 hours LAB
This is the third course in a four-part series specializing in individualized jazz instrumental or vocal instruction seven hours per semester with a private instructor; two hours per semester of solo performance and recital attendance, and ten and one-half hours monitored practice time per week. It focuses on the development of individual performance skills and solo and ensemble repertoire. Juried performance is also required. Required for all traditional performance music majors.

MUIVI 426 Applied Music - Jazz 1 Unit
Prerequisite: MUIVI 425 and audition.
Corequisite: Enrolled in 4 units from MUFHL 400 or 401, or enrolled in 2 units from MUFHL 420 or 421; and enrolled in 2 units from MUFHL 430, 400, or 424.
Course Transferable to UC/CSU
Hours: 7 hours LEC, 191 hours LAB
This is the fourth course in a four-part series specializing in individualized jazz instrumental or vocal instruction seven hours per semester with a private instructor, two hours per semester of solo performance and recital attendance, and ten and one-half hours monitored practice time per week. It focuses on the development of individual performance skills and solo and ensemble repertoire. Juried performance is also required. Required for all traditional performance music majors.

MUIVI 430 Beginning Organ 1 Unit
Prerequisite: Keyboard proficiency required. The student must be able to play a composition for piano comparable in difficulty to a Bach Two-Part Invention.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is designed to introduce and develop fundamental organ/keyboard skills. It is required for organ majors. It may be taken twice for credit.

MUIVI 431 Intermediate Organ 1 Unit
Prerequisite: Two semesters of MUIVI 430.
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is a continuation of MUIVI 430. It includes the further development of skills relative to music written for the organ. Required for organ majors. May be taken twice for credit.

MUIVI 440 Brass Instruction 1 Unit
Prerequisite: Ability to play a brass instrument
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 9 hours LEC, 27 hours LAB
This course provides specialized instruction including all aspects of applied literature and performance on a brass instrument. This course may be taken four times for credit.

MUIVI 442 String Instruction 1 Unit
Prerequisite: Ability to play a woodwind instrument
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 9 hours LEC, 27 hours LAB
This course provides specialized instruction including all aspects of applied literature and performance on a string instrument. This course may be taken four times for credit.
**MU1V 444 Woodwind Instruction**  
1 Unit  
*Prerequisite: Ability to play a woodwind instrument*

*General Education: CSU Area C1*

*Course Transferable to UC/CSU*

*Hours: 9 hours LEC; 27 hours LAB*

This course provides specialized instruction including all aspects of applied literature and performance on a woodwind instrument. This course may be taken four times for credit.

**MU1V 446 Percussion Instruction**  
1 Unit  
*Prerequisite: Ability to play a percussion instrument*

*General Education: CSU Area C1*

*Course Transferable to UC/CSU*

*Hours: 9 hours LEC; 27 hours LAB*

This course provides specialized instruction including all aspects of applied literature and performance on percussion instruments. This course may be taken four times for credit.

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**Music Performance**

**MUP 310 Orchestra**  
2 Units  
*Prerequisite: Ability to play a musical instrument*

*General Education: CSU Area C1*

*Course Transferable to UC/CSU*

*Hours: 108 hours LAB*

This course is the study and performance of orchestral repertoire. It is open to those who play an orchestral instrument. Field trips are required. The course may be taken four times for credit.

**MUP 311 Advanced Orchestra**  
1-2 Units  
*Prerequisite: MUP 310 (8 units)*

*Course Transferable to UC/CSU*

*Hours: 108 hours LAB*

This course is the continuing study and performance of orchestral repertoire. Additional topics include experience in conducting, rehearsal techniques and section leading. Field trips may be required. This course may be taken four times.

**MUP 320 Jazz Band**  
2 Units  
*General Education: CSU Area C1*

*Enrollment Limitation: Ability to play at least one instrument commonly used in jazz ensemble; audition required.*

*Course Transferable to UC/CSU*

*Hours: 108 hours LAB*

This course is the study and performance of jazz band repertoire performing a wide variety of music in the jazz style. Public performance and field trips are required. This course may be taken four times for credit.

**MUP 321 Advanced Jazz Band**  
1-2 Units  
*Prerequisite: MUP 320 (8 units)*

*Enrollment Limitation: Ability to play at least one instrument commonly used in jazz ensemble; audition required.*

*Course Transferable to UC/CSU*

*Hours: 108 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 performance, recording sessions, and field trips may be required. This course may be taken four times for credit.

**MUP 327 Chamber Jazz Ensemble**  
2 Units  
*Prerequisite: Ability to play at least one instrument commonly found in a jazz ensemble; audition required.*

*Course Transferable to UC/CSU*

*Hours: 108 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.

**MUP 328 Advanced Chamber Jazz Ensemble**  
2 Units  
*Prerequisite: MUP 327 with a grade of “C” or better.*

*Course Transferable to CSU*

*Hours: 108 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.

**MUP 330 Concert Band**  
2 Units  
*Advisory: Ability to read music notation and play a band instrument. Duet or ensemble performances, festivals, field trips, and tours are required. This course may be taken four times.*

*September enrollment limitation: Audition*

*Course Transferable to UC/CSU*

*Hours: 108 hours LAB*

This course studies and performs wind and percussion literature. This course is designed for an ensemble of brass, woodwind and percussion instruments. Public performances, festivals, field trips and tours are required. This course may be taken four times for credit.

**MUP 331 Advanced Concert Band**  
1-2 Units  
*Prerequisite: MUP 330.*

*Course Transferable to UC/CSU*

*Hours: 108 hours LAB*

This course is the continuing study and performance of concert band literature. It is designed for a large ensemble of brass, woodwind, and percussion instruments. Additional topics include experience in conducting, rehearsal technique and section leading. Public performances, festivals, field trips, and tours are required. This course may be taken four times.

**MUP 340 Symphonic Band**  
2 Units  
*Advisory: Ability to read music notation and play a band instrument. Brass and woodwind players should know instrument fingerings. Percussion players should know basic rudiments.*

*General Education: CSU Area C1*

*Course Transferable to UC/CSU*

*Hours: 108 hours LAB*

This course studies and performs wind and percussion literature. This course is designed for an ensemble of brass, woodwind and percussion instruments. Public performances, festivals, field trips and tours are required. This course may be taken four times.

**MUP 341 Advanced Symphonic Band**  
1-2 Units  
*Prerequisite: MUP 340 (8 units) and audition.*

*Course Transferable to UC/CSU*

*Hours: 108 hours LAB*

This course is the continuing study and performance of advanced symphonic band literature, designed for an ensemble of brass, woodwind or percussion instruments. Public performances, festivals, field trips, and tours are required. This course may be taken four times for credit.

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MUP 345  Wind Ensemble  2 Units
Prerequisite: Ability to play an instrument found in a wind or chamber ensemble; audition required. Course Transferable to CSU
Hours: 18 hours LEC, 54 hours LAB
This course offers the study and performance of various styles of wind literature designed for one-on-a-part performance. Chamber music literature, rehearsal technique, and performance practices are examined. Public performances and field trips may be required. This course may be taken four times for credit.

MUP 350  College Choir  2 Units
General Education: CSU Area C1
Enrollment Limitation: Ability to match pitch and produce a good tone demonstrated in the initial assessment. 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 are required. This course may be taken four times for credit.

MUP 352  Advanced Concert Choir  1-2 Units
Prerequisite: 8 units of MUP 350 with a grade of "C" or better. Enrollment Limitation: Ability to match pitch and produce a good tone demonstrated in the initial assessment. Course Transferable to CSU
Hours: 18 hours LEC, 54 hours LAB
This course is the 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.

MUP 360  Chamber Singers  2 Units
General Education: CSU Area C1
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 designed for small ensemble experience and practice for woodwind players. Public performance and field trips are required. The course may be taken four times for credit.

MUP 361  Advanced Chamber Singers  1-2 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 designed for small ensemble experience and practice for woodwind players. Public performance and field trips are required. The course may be taken four times for credit.

MUP 370  Rehearsal and Performance - Musical Ensemble  .5-3 Units
Same As: TA 466
Enrollment Limitation: Audition. Course Transferable to UC/CSU
Hours: 162 hours LAB
This course explores the development of a musical theatre production presented before the campus and community. A different production will be presented each semester the course is offered. May be taken four times for credit up to a maximum of twelve units. Not open to students who are taking TA 466 for the same production.

MUP 400  Vocal Jazz Ensemble  2 Units
General Education: CSU Area C1
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: 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 four times for credit.

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 CSU
Hours: 18 hours LEC, 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 performance, festivals, recording sessions and field trips are required. This course may be taken four times for credit.

MUP 410  Woodwind Ensemble  1 Unit
Prerequisite: Ability to play a woodwind instrument. Course Transferable to UC/CSU
Hours: 9 hours LEC, 27 hours LAB
This course is designed for small ensemble experience and practice for woodwind players. Public performance and field trips are required. The course may be taken four times for credit.

MUP 412  Percussion Ensemble  1 Unit
Prerequisite: Ability to play a percussion instrument. Course Transferable to UC/CSU
Hours: 9 hours LEC, 27 hours LAB
This course is a study of percussion ensemble literature. Public performances and field trips are required. The course may be taken four times for credit.

MUP 414  String Ensemble  1 Unit
Prerequisite: Ability to play a string (orchestra) instrument. Course Transferable to UC/CSU
Hours: 9 hours LEC, 27 hours LAB
This course is a study of string literature including duets, trios, quartets or ensembles. Public performance and field trips are required. The course may be taken four times for credit.

MUP 416  Brass Ensemble  1 Unit
Prerequisite: Ability to play a brass instrument. Course Transferable to UC/CSU
Hours: 9 hours LEC, 27 hours LAB
This course is designed for small ensemble experience and practice for brass players. Public performances and field trips are required. This course may be taken four times for credit.

MUP 418  Piano Ensemble  1 Unit
Enrollment Limitation: Audition required. Course Transferable to UC/CSU
Hours: 9 hours LEC, 27 hours LAB
The emphasis of this class is on the artistic interpretation and performance of music for two or more pianists. This course is limited to
MUP 420  Special Ensemble Participation  1-2 Units  
Prerequisite: Audition.  
Advisory: MUFHL 321 or MUIVI 340.  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB  
This course covers contemporary instrumental music, including jazz, pop, and rock musical styles. Other related topics such as lyrics, evolution of melodies and harmonies, popular music form, and musical notation are covered.  

MUSM 114 The Business of Music, Advanced  3 Units  
Prerequisite: MUSM 111, MUSM 112, and MUSM 113 with a grade of "C" or better.  
Hours: 54 hours LEC  
The course meets the requirements at an advanced high level of application and integration into the music industry majors. Course contents include application, evaluation and formulation of recording contracts, publishing and management agreements, and career plans at a high level with an integration into the music industry.

MUSM 113 The Business of Music/Promotion  3 Units  
Prerequisite: MUSM 110 with a grade of "C" or better.  
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. The 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 112 The Business of Music/Artist Management  3 Units  
Prerequisite: MUSM 110 with a grade of "C" or better.  
Hours: 54 hours LEC  
This course covers 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 servicemark points, as well as radio and record-industry relations.

MUSM 110 The Business of Music  3 Units  
Hours: 54 hours LEC  
This course covers 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 120 Contemporary Songwriting  3 Units  
Prerequisite: MUSM 121 with a grade of "C" or better.  
Hours: 54 hours LEC  
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 121 Contemporary Songwriting  3 Units  
Prerequisite: MUSM 120 with a grade of "C" or better.  
Hours: 54 hours LEC  
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  
Hours: 36 hours LEC; 18 hours LAB  
This course is an introduction to the rapidly evolving use of professional music software and MIDI electronic instruments. Various music hardware options, including keyboards, synthesizers, samplers, computers and drum machines, will be explored. A series of MIDI projects will cover music sequencing, notation, and CAI (computer-assisted instruction) software. Field trips are required.

MUSM 334 Introduction to Musical Instrument Digital Interface (MIDI)  2 Units  
Advisory: MUFHL 321 or MUIVI 340.  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB  
This course is an introduction to the rapidly evolving use of professional music software and MIDI electronic instruments. Various music hardware options, including keyboards, synthesizers, samplers, computers and drum machines, will be explored. A series of MIDI projects will cover music sequencing, notation, and CAI (computer-assisted instruction) software. Field trips are required.

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 covers techniques in MIDI composition and arranging. Concepts to be covered include film and video scoring, synchronization techniques, integrating MIDI and digital audio, and using sound editing software.

MUSM 342 Recording Studio Techniques  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 and covers entry level techniques in audio/music production, studio design, and recording console functions. It also covers microphone fundamentals and applications, multi-track recording, and MIDI concepts. Field trips are required. This course may be taken twice for credit.
**MUSM 344 Recording Studio Techniques**  
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 and covers techniques of audio recording, MIDI fundamentals, and remote recordings. It also focuses on mixdown session techniques, outboard gear application and studio design. This course may be taken twice for credit.

**MUSM 350 Recording Studio Techniques**  
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 and covers the techniques and tools for managing a recording studio. Topics include studio design, personnel selection, equipment budgeting, business basics, and operation of 24 track recording equipment.

**MUSM 352 Recording Studio Techniques**  
3 Units  
*Prerequisite: MUSM 350 with a grade of "C" or better.*  
*Course Transferable to CSU*  
*Hours: 36 hours LEC; 54 hours LAB*  
This is the fourth course in a four-part series and covers techniques of engineering live music and audio in recording sessions. It is designed for recording engineers seeking careers in audio and post production. Techniques of analog and digital recording, mixdown, synchronizing audio and video, and management of sessions will be covered.

**MUSM 353 Advanced Digital Recording**  
3 Units  
*Prerequisite: MUSM 352 with a grade of "C" or better.*  
*Course Transferable to CSU*  
*Hours: 36 hours LEC; 54 hours LAB*  
This course requires the analysis and critique of techniques in digital and surround recording. The course covers evaluation and application of areas in surround audio, digital technology, post production, mastering and album production. There are both team and independent projects using advanced methods beyond those learned in MUSM 350 and 352.

**MUSM 356 Pro Tools 101, Introduction to Pro Tools**  
1.5 Units  
*Prerequisite: MUSM 342 (Recording Studio Techniques) with a grade of "C" or better.*  
*Course Transferable to CSU*  
*Hours: 27 hours LEC*  
This course is an introduction to Digidesign's Pro Tools digital audio workstation software application. Basic Pro Tools principles, including how to complete a Pro Tools project from initial set up to final mixdown are covered. It includes how to record, edit, and mix music and Musical Instrument Digital Interface (MIDI) tracks within the Pro Tools LE application. This course is the first in a series of four courses leading to certification as a Pro Tools Operator. It may be taken twice for credit using different software versions.

**MUSM 370 Music for Children**  
3 Units  
*General Education: AA/AS Area I; CSU Area C1*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC*  
This course focuses on the principles of teaching and using music in nursery school, pre-school, elementary school and recreational programs. Methods and material used in singing, creating, moving, reading and listening are covered. The course is recommended for nursery school workers and Early Childhood credential candidates whose major is not music. It is suggested for recreational leaders and workers and others who use music with groups of children.
### Natural Resources Degree

**Requirements for Degree**  
40.5-41.5 Units

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</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 310</td>
<td>General Biology</td>
<td>4</td>
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<tr>
<td>ENGR 344</td>
<td>Technical/Professional Communication: Writing Reports</td>
<td>1.5</td>
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<tr>
<td>GEOP 330</td>
<td>Introduction to Geographic Information</td>
<td>5-6</td>
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<tr>
<td>and GEOP 334</td>
<td>Introduction to Desktop GIS</td>
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<tr>
<td>or CISC 300</td>
<td>Computer Familiarization</td>
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<tr>
<td>and CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
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<tr>
<td>and CISA 305</td>
<td>Beginning Word Processing</td>
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<tr>
<td>or CIS 306</td>
<td>Intermediate Word Processing</td>
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<tr>
<td>GEOL 300</td>
<td>Physical Geography: Exploring Earth's Environmental Systems</td>
<td>3</td>
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<tr>
<td>and GEOL 300</td>
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</table>

- NATR 300 Introduction to Natural Resource Management 3 Units
- NATR 302 Introduction to Wildlife Biology 3 Units
- NATR 304 Introduction to Forestry 3 Units
- NATR 310 Natural Resource Measurements (4) 3 Units
- or NATR 311 Natural Resource Measurements-Land Surveying Methods (1) 3 Units
- and NATR 312 Natural Resource Measurements-Field Methods and Study Design (1) 3 Units
- and NATR 313 Natural Resource Measurements-Vegetation Analysis and Forest Sampling (1) 3 Units
- and NATR 314 Natural Resource Measurements-Aquatic Resource Sampling (1) 3 Units
- NATR 320 Principles of Ecology 3 Units
- NATR 330 Identification of Native Trees and Shrubs 4 Units
- and NATR 312 Natural Resource Measurements-Field Methods and Study Design (1)
- and NATR 313 Natural Resource Measurements-Vegetation Analysis and Forest Sampling (1)
- and NATR 314 Natural Resource Measurements-Aquatic Resource Sampling (1)
- NATR 320 Principles of Ecology 3 Units
- NATR 330 Identification of Native Trees and Shrubs 4 Units

**Associate Degree Requirements:** The Natural Resources 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.

### Natural Resources Certificate

**Requirements for Certificate**  
20 Units

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>NATR 300</td>
<td>Introduction to Natural Resource Management</td>
<td>3</td>
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<tr>
<td>NATR 302</td>
<td>Introduction to Wildlife Biology</td>
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<tr>
<td>NATR 304</td>
<td>Introduction to Forestry</td>
<td>3</td>
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<tr>
<td>NATR 310</td>
<td>Natural Resource Measurements (4)</td>
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<tr>
<td>or NATR 311</td>
<td>Natural Resource Measurements-Land Surveying Methods (1)</td>
<td>3</td>
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<tr>
<td>and NATR 312</td>
<td>Natural Resource Measurements-Field Methods and Study Design (1)</td>
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<td>Natural Resource Measurements-Vegetation Analysis and Forest Sampling (1)</td>
<td>4</td>
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<td>Natural Resource Measurements-Aquatic Resource Sampling (1)</td>
<td>3</td>
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<td>Identification of Native Trees and Shrubs</td>
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</tbody>
</table>

### Degree: A.S. - Natural Resources

### Certificate: Natural Resources

#### NATR 294 Topics in Natural Resources  .5-5 Units
- **Prerequisite:** To be determined for each topic.
- **Advisory:** ENGRD 116 or ESLR 320.
- **Hours:** 90 hours LEC, 270 hours LAB

Topics in natural resources management will be examined through various course offerings designed to cover field study activities and subjects relevant to natural resources and forestry not covered by regular catalog offerings. Topics and field study locations vary. Course content and unit credit to be determined by instructional area. Course topics may include advanced subjects related to wildlife, fisheries, conservation biology, forest resources and management, restoration ecology or aquatic ecology. Field trips required. This course may be taken four times.

#### NATR 298 Work Experience in Natural Resources 1-4 Units
- **Hours:** 72 hours LEC
- **General Education:** AA/AS Area IV

#### NATR 300 Introduction to Natural Resource Management 3 Units
- **General Education:** AA/AS Area IV
- **Course Transferable to UC/CSU**
- **Hours:** 54 hours LEC

This course is an overview of ecosystems and natural resource management. It considers non-renewable and renewable natural resources such as water, land, soils, air, wildlife and their vegetative communities. Additionally, this course provides a greater appreciation and understanding of the field of natural resource management, current human threats, and the protection and maintenance of natural resource systems. Field trips are required.

#### NATR 302 Introduction to Wildlife Biology 3 Units
- **General Education:** AA/AS Area IV
- **Course Transferable to CSU**
- **Hours:** 36 hours LEC, 54 hours LAB

This course is an introduction to Wildlife Biology and the basic principles and techniques related to the practice of Wildlife Management. Emphasis is based on ecological principles of populations and communities as they relate to the interdependence of wildlife and human populations. This course includes the discussion of the social, political and biological implications of Wildlife Management. Additionally, this course includes habitat and population sampling, radio telemetry and the development of a wildlife management plan. Field trips are required.

#### NATR 304 Introduction to Forestry 3 Units
- **General Education:** AA/AS Area IV
- **Course Transferable to UC/CSU**
- **Hours:** 54 hours LEC

This course covers basic biological and physical science concepts important to a general understanding in forestry. Topics include forest history, forests of the United States, general tree taxonomy, forest ecology, soils, silvics, insects and diseases of forest trees, role of fire in forest management, forest measurements, multiple use management, forest issues and policies. Field trips are required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>NATR 306</td>
<td>Introduction to Range Management</td>
<td>3</td>
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<tr>
<td>Course Transferable to CSU</td>
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<tr>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<tr>
<td>This course examines the historical developments of range management and theory and application of grazing strategies. This course focuses on the effects of grazing on range ecosystems, the taxonomy and physiology of range plants, ruminant nutrition and physiology. In addition, sampling techniques of field vegetation, the use of fire and other methods for range conversion and maintenance are explored. Field trips are required.</td>
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<tr>
<td>NATR 310</td>
<td>Natural Resource Measurements</td>
<td>4</td>
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<tr>
<td>Course Transferable to CSU</td>
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<tr>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
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<tr>
<td>This course provides basic natural resource measurement and survey skills. Included are elementary surveying, public land surveying, distance and direction measurement, topographic map reading, stream flow measurement, basic aquatic and water quality sampling. It focuses on forest and herbaceous vegetation sampling techniques such as transects and quadrates. Also included are the fundamentals of wildlife sampling techniques such as radio telemetry, population sampling techniques, Global Positioning Systems (GPS), Geographic Information Systems (GIS), and use of the internet as a research tool. Field trips are required.</td>
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<tr>
<td>NATR 311</td>
<td>Natural Resource Measurements-Land Surveying Methods</td>
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<tr>
<td>Course Transferable to CSU</td>
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<td>Hours: 9 hours LEC; 27 hours LAB</td>
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<td>This course provides basic natural resource land survey skills. Included in this course are elementary surveying, public land survey, distance and direction measurements, and topographic map reading. Field trips are required.</td>
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<td>NATR 312</td>
<td>Natural Resource Measurements-Field Methods and Study Design</td>
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<tr>
<td>This course provides basic statistics and study design as well as fundamental wildlife sampling techniques and an introduction to field applications of Global Positioning Systems (GPS) and Geographic Information Systems (GIS). Field trips are required.</td>
<td></td>
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</tr>
<tr>
<td>NATR 313</td>
<td>Natural Resource Measurements- Vegetation Analysis and Forest Sampling</td>
<td>1</td>
</tr>
<tr>
<td>Course Transferable to CSU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours: 9 hours LEC; 27 hours LAB</td>
<td></td>
<td></td>
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<tr>
<td>This course provides basic forest and vegetation sampling skills. Included in this are forest sampling techniques such as tree heights, diameters, volume, and age. Vegetation sampling techniques such as quantitative and semi-quantitative analysis, and single species surveys will be covered. Field trips are required.</td>
<td></td>
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<tr>
<td>NATR 314</td>
<td>Natural Resource Measurements-Aquatic Resource Sampling</td>
<td>1</td>
</tr>
<tr>
<td>Course Transferable to CSU</td>
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<tr>
<td>Hours: 9 hours LEC; 27 hours LAB</td>
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<tr>
<td>This course provides basic aquatic resource sampling skills. Included in this course are stream flow measurements and water quality sampling. Sampling techniques for fisheries and other aquatic organisms will also be addressed. Field trips are required.</td>
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<tr>
<td>NATR 320</td>
<td>Principles of Ecology</td>
<td>3</td>
</tr>
<tr>
<td>General Education: AA/AS Area IV</td>
<td></td>
<td></td>
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<tr>
<td>Course Transferable to UC/CSU</td>
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<tr>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<tr>
<td>This course covers basic principles of ecology, including the physical and biological factors of different environments in relation to the distribution of plants and animals. Emphasis will be on the management of ecosystems using ecological principles and the understanding of current ecological issues. Field trips are required.</td>
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<tr>
<td>NATR 325</td>
<td>Black Bear Ecology and Management in California</td>
<td>2</td>
</tr>
<tr>
<td>Course Transferable to CSU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours: 27 hours LEC; 27 hours LAB</td>
<td></td>
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<tr>
<td>This course explores the natural history, habitat, and management of the black bear. Topics include the distribution, abundance, physiology, reproduction, and behavior of black bears. A field trip into black bear country is required to allow observation of bear sign and appreciation of the natural habitat of this animal.</td>
<td></td>
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<tr>
<td>NATR 326</td>
<td>Analysis of a Predator-The Mountain Lion</td>
<td>1.5</td>
</tr>
<tr>
<td>Course Transferable to CSU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours: 27 hours LEC</td>
<td></td>
<td></td>
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<tr>
<td>This course explores the natural history and political history of the mountain lion. Topics include the distribution and abundance of mountain lions in California and throughout western North America; the important ecological role of these predators; problems associated with mountain lions, and the legal status of mountain lions in California. A field trip into mountain lion country is required to allow observation of lion sign and appreciation of the natural habitat of this predator.</td>
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<tr>
<td>NATR 330</td>
<td>Identification of Native Trees and Shrubs</td>
<td>4</td>
</tr>
<tr>
<td>Course Transferable to CSU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
<td></td>
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<tr>
<td>This course will focus on the identification of native trees and shrubs of California by means of plant keys. In addition, this course will also include sight identification of some grasses, and other herbaceous and wetland plants. The ecology of vegetative communities and the natural history of native plants will be explored. A collection of at least seventy-five plant specimens is required. Field trips are required.</td>
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<tr>
<td>NATR 332</td>
<td>Wildflowers of the Sacramento Region</td>
<td>4</td>
</tr>
<tr>
<td>General Education: AA/AS Area IV</td>
<td></td>
<td></td>
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<tr>
<td>Course Transferable to UC/CSU</td>
<td></td>
<td></td>
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<tr>
<td>Hours: 54 hours LEC; 54 hours LAB</td>
<td></td>
<td></td>
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<tr>
<td>This course covers the life, writings and philosophy of one of the founders of the American Conservation Movement. This course focuses on John Muir’s significant contributions to the formation of the National Park System. This course is recommended to Elementary and Secondary Educators and those interested in natural resources, conservation and California history. Some class sessions will be held at the Muir National Historical Site in Martinez, the Muir Redwoods and Yosemite National Park. Field trips are required.</td>
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</tbody>
</table>
Registered Nursing Degree

Nursing is a health care profession that requires knowledge of biological, behavioral and physical sciences. The Nursing Program consists of a combination of general education and nursing courses with related laboratory experiences. Successful completion of the program qualifies the student to take the National Council Licensure Examination (NCLEX-RN) to become registered as a nurse and eligible for employment.

A grade of “C” or better is required in each nursing course for progression in the program and for an Associate Degree in Science: Nursing. There are required morning, afternoon, evening, and weekend clinical experiences that may change with limited notice. The student is responsible for providing uniforms, laboratory fees, malpractice insurance, necessary equipment, and transportation to off-campus laboratory locations.

Note: In accordance with Regulation 480 of the State Board of Registered Nursing, a person convicted of any offense other than a minor traffic violation, may not qualify to be licensed as a registered nurse. If there are any questions regarding this matter, please contact the State Board of Registered Nursing, or visit their website at www.rn.ca.gov.

Career Opportunities

Employment in the field for registered nurses is excellent locally and nationally. The registered nurse enjoys a well compensated, rewarding, highly flexible career, which should continue in the future. 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:

• 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 Education Development (GED) or California High School Proficiency Exam (CHSPE). These requirements are defined by the current Nurse Practice Act, Title 16, California Code of Regulations, Section 1412.

• 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, NUTRI 300, and PSYC 300.

• Eligibility for ENGRD 310 or 312.

• Current curriculum planning summary sheet for first-time applicants.

• In-progress grades will not be accepted for prerequisite courses.

• Transfer-In Policy: Students wishing to transfer into any semester of the Nursing program are asked to contact the department office at (916) 484-8254. The office can give you current information on availability of space. Should there be a possibility of transfer, a packet of information will be sent for completion and return.

Enrollment Process

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

• Pre-enrollment applications and deadlines are available from the Admissions and Records office, Nursing Department, or the ARC website at www.arc.losrios.edu/ed-health/nursing.html.

• Selection is based on a computerized random selection process from among the qualified applicants.

• 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.

• Acceptance of pre-nursing courses taken outside the Los Rios Community College District will be determined by the Nursing admissions committee.

• All students accepted into the Nursing program will complete the Test of Essential Academic Skills (TEAS) developed by Assessment Technologies Institute, LLC (ATI). A composite score of 67 is required for program enrollment. Additional information is available on the ARC nursing website.

• The student accepted into the Nursing program is required to have a physical examination, inoculations, drug screen, background check, current CPR card and malpractice insurance prior to the start of the semester.

Requirements for Degree  71-72 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology (3)</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 300</td>
<td>Introductory Sociology (3)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 430</td>
<td>Anatomy and Physiology ................................</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 431</td>
<td>Anatomy and Physiology ................................</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 440</td>
<td>General Microbiology (4)</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL 442</td>
<td>General Bacteriology (5)</td>
<td>5</td>
</tr>
<tr>
<td>ENGWR 300</td>
<td>College Composition ...................................</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 400</td>
<td>Fundamentals of Medical-Surgical Nursing I ......</td>
<td>10.5</td>
</tr>
<tr>
<td>NURSE 410</td>
<td>Maternal/Child and Medical-Surgical Nursing II ....</td>
<td>10.5</td>
</tr>
<tr>
<td>NURSE 420</td>
<td>Psychiatric and Medical-Surgical Nursing III ......</td>
<td>10.5</td>
</tr>
<tr>
<td>NURSE 430</td>
<td>Management of Multiple Patients &amp; Medical - Surgical Nursing IV</td>
<td>10.5</td>
</tr>
<tr>
<td>NUTRI 300</td>
<td>Nutrition ..................................................</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 300</td>
<td>General Principles ......................................</td>
<td>3</td>
</tr>
<tr>
<td>SPEECH 301</td>
<td>Public Speaking (3) ...................................</td>
<td>3</td>
</tr>
<tr>
<td>or SPEECH 331</td>
<td>Group Discussion (3)</td>
<td></td>
</tr>
</tbody>
</table>

*Biol 430, 440, and 442 have a prerequisite of an introductory college chemistry course with a grade of “C” or better. Please check catalog course descriptions.
nursing & allied health

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Possession of a current California Vocational Nurse (LVN) license at the time of application.
- Completion of a minimum of six months of recent LVN work experience, preferably in the medical-surgical area.
- 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 G.P.A. of 2.5 in the following ARC prerequisite courses: ENGWR 300, NUTRI 300, PSYC 300, SPEECH 301 or SPEECH 331, and SOC 300 or ANTH 310; or in the following SCC prerequisite courses: COMM 301 or 331, ENGWR 300, FCS 324, FCS 340, PSYC 300, and SOC 300 or ANTH 310.
- Eligibility for ENGRD 310 or 312.
- Current curriculum planning summary sheet within the semester in which the pre-enrollment packet is being submitted.

Associate Degree Requirements: The Registered Nursing 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.

LVN to RN Career Mobility Degree

The Career Mobility Program for the Licensed Vocational Nurse (LVN) consists of a combination of general education and nursing courses with related laboratory experiences. The LVN Career Mobility program is offered in conjunction with Sacramento City College (SCC). Successful completion of the program qualifies the student to take the National Licensing Examination to become registered as a nurse and eligible for employment.

A grade of “C” or better is required in each nursing course for progression in the program and for an Associate Degree in Science - Nursing. There are required morning, afternoon, evening, and weekend clinical experiences that may change with limited notice. The student is responsible for providing uniforms, laboratory fees, malpractice insurance, necessary equipment, and transportation to off-campus laboratory locations.

Note: In accordance with Regulation 480 of the State Board of Registered Nursing, a person convicted of any offense other than a minor traffic violation, may not qualify to be licensed as a registered nurse. If there are any questions regarding this matter, please contact the State Board of Registered Nursing, or visit their website at www.rn.ca.gov.

Career Opportunities

Employment in the field for registered nurses is excellent locally and nationally. The registered nurse enjoys a well compensated, rewarding, highly flexible career, which should continue in the future. This field is expanding; growth in the job market is projected.

Enrollment Process

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

- Pre-enrollment applications and deadlines for the LVN-to-RN Career Mobility Program are available from the Nursing Department at either ARC or SCC.
- Selection is based on a computerized random selection process from among the qualified applicants and is subject to space availability.
- 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.
- Acceptance of pre-nursing courses taken outside the Los Rios Community College District will be determined by the Nursing admissions committee.
- All students accepted into the Nursing program will complete the Test of Essential Academic Skills (TEAS) developed by Assessment Technologies Institute, LLC (ATTI). A composite score of 67 is required for program enrollment. Additional information is available on the ARC nursing website.
- The student accepted into the Nursing program is required to have a physical examination, inoculations, drug screen, background check, current CPR card and malpractice insurance prior to the start of the semester.

Requirements for Degree 75-76 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<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 Bacteriology (5)</td>
<td>5</td>
</tr>
<tr>
<td>ENGRD 300</td>
<td>College Composition</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 305</td>
<td>Transition to Associate Degree Nursing</td>
<td>4</td>
</tr>
<tr>
<td>NURSE 400</td>
<td>Fundamentals of Medical-Surgical Nursing I</td>
<td>10.5</td>
</tr>
<tr>
<td>NURSE 410</td>
<td>Maternal/Child and Medical-Surgical Nursing II</td>
<td>10.5</td>
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<tr>
<td>NURSE 420</td>
<td>Psychiatric and Medical-Surgical Nursing III</td>
<td>10.5</td>
</tr>
<tr>
<td>NURSE 430</td>
<td>Management of Multiple Patients &amp; Medical-Surgical Nursing IV</td>
<td>10.5</td>
</tr>
<tr>
<td>NUTRI 300</td>
<td>Nutrition</td>
<td>3</td>
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<tr>
<td>PSYC 300</td>
<td>General Principles</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH 310</td>
<td>Cultural Anthropology (3)</td>
<td>3</td>
</tr>
<tr>
<td>SPEECH 301</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or SPEECH 331</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
</tbody>
</table>

1 BIOL 430, 440, and 442 have a prerequisite of an introductory college chemistry course with a grade of “C” or better. Please check catalog course descriptions.
2 ANTH 310, SOC 300, SPEECH 301 and SPEECH 331 may be taken after enrollment in the program, but must be completed before taking NURSE 420.
3 Credit for NURSE 400 and 410 will be given after evaluation of LVN program transcripts.

Enrollment Process

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

- Pre-enrollment applications and deadlines for the LVN-to-RN Career Mobility Program are available from the Nursing Department at either ARC or SCC.
- Selection is based on a computerized random selection process from among the qualified applicants and is subject to space availability.
- 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.
- Acceptance of pre-nursing courses taken outside the Los Rios Community College District will be determined by the Nursing admissions committee.
- All students accepted into the Nursing program will complete the Test of Essential Academic Skills (TEAS) developed by Assessment Technologies Institute, LLC (ATTI). A composite score of 67 is required for program enrollment. Additional information is available on the ARC nursing website.
- The student accepted into the Nursing program is required to have a physical examination, inoculations, drug screen, background check, current CPR card and malpractice insurance prior to the start of the semester.

Requirements for Degree 75-76 Units

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</table>

1 BIOL 430, 440, and 442 have a prerequisite of an introductory college chemistry course with a grade of “C” or better. Please check catalog course descriptions.
2 ANTH 310, SOC 300, SPEECH 301 and SPEECH 331 may be taken after enrollment in the program, but must be completed before taking NURSE 420.
3 Credit for NURSE 400 and 410 will be given after evaluation of LVN program transcripts.
Acute Care Certified Nurse Assistant Certificate

This certificate expands on previously learned Certified Nurse Assistant (CNA) theory to incorporate the holistic care and health needs of the adult patient in the acute care setting. This program introduces the student to the roles and responsibilities of the acute care nurse assistant. Students who successfully complete the course will receive a Certificate of Completion.

Note: Successful completion of NURSE 102 requires attendance at all class and clinical experiences to meet DHS minimum hour requirements.

Enrollment Eligibility
To be eligible for enrollment in the program, the student must meet the following criteria:

- Proof of successful completion of a Department of Health Services (DHS) approved Certified Nurse Assistant (CNA) course or copy of current, active status CNA certificate.
- TB test within the last six months or a chest x-ray within one year prior to entrance into NURSE 102.
- Physical exam within one year prior to entrance into NURSE 102.

Requirements for Certificate 8 Units
NURSE 100 Nurse Assistant .......................................................... 6
NURSE 102 Acute Care Certified Nursing Assistant ..................... 2

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 will receive a Certificate of Completion. The program will also prepare the student to take the State of California competency examination for certification as a nurse assistant.

Note: Successful completion of NURSE 100 requires attendance at all class and clinical experiences to meet Department of Health Services minimum hour requirements.

Career Opportunities
Certified Nurse Assistants (CNA) have a wide variety of work opportunities. The most common work placement is in long term care facilities. Additionally, the CNA may find work in acute care settings, medical offices, and walk-in medical clinics.

Enrollment Eligibility
To be eligible for enrollment in the program, the student must meet the following criteria:

- TB test within the last six months or a chest x-ray within one year prior to entrance.
- Physical exam within one year prior to entrance.
- ESLW 40, ESLR 40, and ESLL 40; or ENGWR 51 and ENGRD 15; or placement by ARC Assessment Center.

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

- Attendance at a mandatory orientation session prior to the first class. Students unable to attend must contact the Nursing department before the orientation session.
- Submission of “Live-Scan” electronic fingerprinting (processing fee required); obtain after class registration, but prior to first class. Bring receipt copy to nursing department before the first class.
- Submission of a money order for $15.00 made out to the Department of Health Services (DHS). This is a Nurse Assistant application fee. No cash or personal checks accepted. Submit with “Live-Scan” receipt to the nursing department prior to the first class.

Requirements for Certificate 6 Units
NURSE 100 Nurse Assistant ......................................................... 6

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. The State of California will certify the CNA as a Home Health Aide after successful course completion and without further testing.

Note: Successful completion of the NURSE 101 requires attendance at all class and clinical experiences to meet DHS minimum hour requirements.

Career Opportunities
The Home Health Aide may expand on the CNA work setting to include the homebound client.

Enrollment Eligibility
To be eligible for enrollment in the program, the student must meet the following criteria:

- Proof of successful completion of a Department of Health Services (DHS) approved Certified Nurse Assistant (CNA) course or copy of current, active status CNA certificate.
- TB test within the past six months or a chest x-ray within one year prior to entrance into NURSE 101.
- Physical exam within one year prior to entrance into NURSE 101.

Requirements for Certificate 8 Units
NURSE 100 Nurse Assistant ......................................................... 6
NURSE 101 Home Health Aide ...................................................... 2

Licensed Vocational Nurse (LVN) 30-unit option Certificate

The 30-unit option provides the Licensed Vocational Nurse (LVN) the opportunity to prepare and sit for the National Council Licensure Examination (NCLEX-RN). This option is available to all LVNs entering the ARC Nursing Program. This option does not satisfy ARC’s Nursing Program requirements or lead to an Associate Degree in nursing.

A grade of “C” or better is required in each nursing course for progression toward the 30-unit option certificate. There are required morning, afternoon, evening, and weekend clinical experiences that may change with limited notice. The student is responsible for providing uniforms, laboratory fees, malpractice insurance, necessary equipment and transportation to off-campus laboratory locations.
Note: In accordance with Regulation 480 of the State Board of Registered Nursing, a person convicted of any offense other than a minor traffic violation, may not qualify to be licensed as a registered nurse. If there are any questions regarding this matter, please contact the State Board of Registered Nursing, or visit their website at www.rn.ca.gov.

**Career Opportunities**

The State of California provides the LVN with an option to sit for the National Council Licensure Examination (NCLEX-RN) after completing 30 college semester units. The LVN seeking this path to RN licensure may not receive reciprocal RN licensure in other states. 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.

**Enrollment Eligibility**

To be eligible for enrollment in the program, the student must meet the following criteria:

- Possession of a current California Vocational Nurse (LVN) license at the time of application.
- Completion of a minimum of six months recent LVN work experience, preferable in the medical-surgical area.
- Completion of BIOL 431 or equivalent 4-5 semester unit physiology course, and BIOL 440 or equivalent 4 semester unit microbiology course, with a grade of “B” or better prior to enrollment in the nursing courses.
- Current curriculum planning summary sheet with the semester in which the pre-enrollment packet is being submitted.

**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 Academic Program Director.
- Provide official transcripts and course descriptions of physiology, microbiology, and previous LVN program prior to the appointment.
- Objective counseling of this option and individual evaluation of the applicant’s academic deficiencies irrespective of time such courses were completed will occur at the appointment.
- Entry is subject to space available.
- All students accepted into the Nursing program will complete the Test of Essential Academic Skills (TEAS) developed by Assessment Technologies Institute, LLC (ATI). A composite score of 67 is required for program enrollment. Additional information is available on the ARC nursing website.
- Transcripts of physiology, microbiology, and nursing course work completed will be provided to the Board of Registered Nursing upon completion of the 30-unit option.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 431</td>
<td>Anatomy and Physiology</td>
<td>5</td>
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<td>General Microbiology</td>
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<td>10.5</td>
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<tr>
<td>NURSE 430</td>
<td>Management of Multiple Patients and Medical-Surgical Nursing IV</td>
<td>10.5</td>
</tr>
</tbody>
</table>

**NURSE 100  Nurse Assistant 6 Units**
Prerequisite: ESLW 040, ESLR 040, and ESLL 040; OR ENGW 051 and ENGRD 015; OR placement through assessment.

Enrollment Limitation: Prior to the first class the following requirements must be submitted to the ARC student health office: 1. proof of physical exam within one year prior to class. 2. proof of negative TB skin test within six months prior to class 3. If TB skin test result is positive, proof of inactive TB chest x-ray within one year prior to class.

Hours: 63 hours LEC; 135 hours LAB

This course leads to the nurse assistant certification exam. Class emphasis is on the gerontological nursing assistant role and responsibilities as a health care team member. Other key components in this course are principles of asepsis, infection control, patient care skills, and emotional, social and spiritual needs of the patient.

**NURSE 101  Home Health Aide 2 Units**
Prerequisite: NURSE 100 with a grade of “C” or better or current California Nurse Assistant Certification.

Hours: 27 hours LEC; 27 hours LAB

This course focuses on home health aide responsibilities: personal and rehabilitation nursing care in the home, skills of maintaining a safe home environment, meal planning and preparation, emotional care of the homebound, and home emergency procedures.

**NURSE 102  Acute Care Certified Nursing Assistant 2 Units**
Prerequisite: NURSE 100 with a grade of “C” or better or current Nurse Assistant Certificate.

Hours: 27 hours LEC; 27 hours LAB

This course is designed as a supplemental educational program for Certified Nursing Assistants (CNAs) to meet current industry demands for employment as an Acute Care Nursing Assistant (ACNA). The course will present the expanded scope of practice of the CNA with emphasis on safe and competent nursing and personal care skills and service in accordance with the needs description provided by the acute care facilities.

**NURSE 110  Physical Assessment for Health Care Providers 2 Units**
Prerequisite: NURSE 400 or higher (or equivalent); RN or LVN licensure; or CNA certification.

Hours: 36 hours LEC

This course is designed for health care professionals and Allied Health students desiring to expand their physical assessment skills. Advanced physical assessment of all major body systems will be included across the life span. Additional topics include nutritional, psychosocial, cognitive, and activity assessment. This course fulfills BRN continuing education requirements.

**NURSE 111  Basic Electrocardiography (ECG) Interpretation 1 Unit**

Advisory: NURSE 420 with a grade of “C” or better, or RN or LVN licensure.

Hours: 18 hours LEC

This course covers basic electrocardiography (ECG) interpretation. Topics include atrial junctional and ventricular rhythm recognition. This course also fulfills Board of Registered Nursing (BRN) and Emergency Medical Services (EMS) requirements for continuing education.
NURSE 112  Bedside Cardiac Assessment  1 Unit
Advisory: Completion of NURSE 420 or LVN or RN licensure.
Hours: 18 hours LEC
This class is designed for health care professionals and students who wish to improve their cardiac assessment skills. Topics include heart sounds, chest pain assessment, risk factor identification, physical finds, and anatomy and physiology overview. This course will satisfy BRN continuing education requirements.

NURSE 113  Laboratory Value Interpretation and Diagnostic Studies  1 Unit
Advisory: Completion of NURSE 400 or RN or LVN Licensure or CNA certificate.
Hours: 18 hours LEC
This class is designed for health care professionals and students who wish to update and improve their knowledge of current lab values and diagnostic testing. This course will satisfy BRN continuing education requirements.

NURSE 122  Strategies for Clinical Success  1 Unit
Enrollment Limitation: Acceptance into ARC nursing program.
Hours: 18 hours LEC
This course is designed for incoming NURSE 400 nursing students who have little or no familiarity with hospital based nursing and are unaware of all the responsibilities a nurse has in a medical-surgical hospital unit. The focus of the course is achieving clinical success. Topics include Registered Nurse (RN) responsibilities, Kardex review, medical terminology, shift workflow and organization, worksheet formulation and utilization, and discussion of common laboratory and diagnostic tests.

NURSE 305  Transition to Associate Degree Nursing  4 Units
Enrollment Limitation: Acceptance into the Associate Degree Nursing Program.
Course Transferable to CSU
Hours: 54 hours LEC; 54 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 Program. Critical thinking skills necessary for successful role transition are emphasized throughout the course. Topics include care of adult and geriatric clients with specific medical-surgical nursing disorders, assessment skills, pharmacology, nursing process, theory-based nursing practice, legal/ethical issues, cultural and ethnic diversity, and the educator role of the Registered Nurse (RN). Concurrent acute care hospital laboratory experience emphasizes critical thinking, problem solving, and decision making, implementing nursing theory into practice.

NURSE 310  Pharmacology and Implications for Health Care Practitioners  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course presents the principles of drug therapy as they apply in treating disease and maintaining health. The course covers the metabolism and action of drugs with an emphasis on 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, prevent and treat pain, treat infections, and malignant neoplasms are discussed. Drugs that alter psychogenic behavior and sleep patterns are also included.

NURSE 320  Medical Dosage Calculations  1.5 Units
Advisory: MATH 25 or higher
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. The 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 teaches 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 360  Physical Therapy Aide  3 Units
Same As: GERON 350
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed to prepare students in the responsibilities of Physical Therapy Aides and to provide a general introduction to the physical therapy field. Basic skills of range of motion exercise, positioning, transfers, and ambulation with assistive devices are covered through lecture and hands-on experiences. This course presents basic anatomy, terminology, and medical issues associated with the field of physical therapy. Not open to students who have completed GERON 350.

NURSE 390  Fundamentals of Lactation Consultant Assisting  1.5 Units
Course Transferable to CSU
Hours: 27 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. The 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.
NURSE 391  Supporting the Mother-Baby Connection: Evidence-Based Practices for Perinatal Care  1 Unit
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. The course 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 challenges the student to apply 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. 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.

NURSE 400  Fundamentals of Medical-Surgical Nursing I  10.5 Units
Corequisite: SPEECH 301 or 331.
Enrollment Limitation: Acceptance into the Associate Degree Nursing program.
Course Transferable to CSU
Hours: 81 hours LEC; 324 hours LAB
This course provides an introduction to nursing utilizing Orem's model, theory and practice related to providing patient care with an emphasis on basic nursing skills and the nursing process. Life cycle concepts and their impact on self-care and health are included, with particular emphasis on the senior adult. Professional role development and ethical issues are introduced. Concurrent laboratory experience takes place in subacute and acute care settings.

NURSE 410  Maternal/Child and Medical-Surgical Nursing II  10.5 Units
Prerequisite: NURSE 400 with a grade of “C” or better.
Corequisite: ANTH 310 or SOC 300.
Enrollment Limitation: SPEECH 301 or 331.
Course Transferable to CSU
Hours: 81 hours LEC; 324 hours LAB
This course applies the concepts of Orem's model of self-care that are applied to care of the newborn, child, middle and senior adult. Pathophysiological and pathopsychological factors creating health deviations are emphasized. Supervision is provided in the utilization of the nursing process. Legal issues relevant to health care and their implications are studied. Concurrent laboratory experience takes place in medical-surgical and maternal/child health settings. Field trips are required.

NURSE 420  Psychiatric and Medical-Surgical Nursing III  10.5 Units
Prerequisite: NURSE 410 with a grade of “C” or better.
Course Transferable to CSU
Hours: 81 hours LEC; 324 hours LAB
In this course, concepts of Orem's nursing model of self-care theory are applied to the psychiatric and medical-surgical patient. Pathophysiological and pathopsychological factors creating health deviations are emphasized. Independence is encouraged and supported in the utilization of the nursing process. Introductory concepts of nursing leadership and management are explored. Community resources and experiences relevant to the course of study are included. Concurrent laboratory experiences take place in the psychiatric and medical-surgical settings. Field trips are required.

NURSE 430  Management of Multiple Patients and Medical - Surgical Nursing 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
In this course, concepts of Orem's nursing model of self-care theory are applied to care of the middle and senior adult. Focus is on nursing management of a group of acutely ill patients and participation in the health care team. Pathophysiological and pathopsychological factors creating health deviations are emphasized. Priorities are given to the utilization of the nursing process in making and evaluating decisions. Related laboratory experience take place in the medical-surgical and home health settings. The transition from student to graduate nurse is explored through study of the Nurse Practice Act and discussion of the problems, responsibilities, and challenges confronting the registered nurse. Concurrent laboratory experiences take place in acute care and home health setting. Field trips are required.

NURSE 1000  NCLEX-RN Review  1-3 Units
Prerequisite: NURSE 420 with a grade of “C” or better
Corequisite: NURSE 430
Enrollment Limitation: For students with English as a Second Language, the participant must take the Test for English Proficiency Level (TEPL) and score a minimum of 5 on the test, or have completed the equivalent to English Writing 300.
Hours: 27 hours LEC; 81 hours LAB
This course prepares the student to take the NCLEX-RN (National Council Licensure Examination-Registered Nurse). Coursework includes computer test-taking skills, barriers to success, identification of knowledge deficits via a standardized assessment test, and overview of NCLEX-RN content areas. In the classroom, students may earn .5 unit of credit for every 9 hours. In the lab, students implement an individualized study plan and may earn .5 unit of credit for every 27 hours of work. This course is designed to be taken during the last semester of an RN program or after completion of a nursing program. The course is designed for first-time and repeat test takers. Credit/No Credit only.

AH 110  Medical Language for Health-Care Providers  3 Units
Hours: 54 hours LEC
This course is an orientation to medical language. It covers the basic structure of medical terms and their components: prefixes, suffixes, roots, and combining forms with emphasis on meaning, spelling, and pronunciation. This course also builds a medical vocabulary applicable to the specialties of medicine, the systems of the body, names of major diseases, and terms used in physical examination, diagnosis, and treatment.
Dietary Manager/Dietary Service Supervisor Certificate

The Dietary Manager/Dietary Service Supervisor Certificate provides certification for employment in nutritional care and dietary management within a health-care facility, such as a skilled nursing facility. This certificate program meets the California State Department of Health Service’s requirements for certification.

Career Opportunities

Dietary Manager in a Long Term Care Facility.

Requirements for Certificate 15 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM 315</td>
<td>Food Theory and Preparation</td>
<td>4</td>
</tr>
<tr>
<td>NUTRI 110</td>
<td>Nutritional Care Management</td>
<td>3</td>
</tr>
<tr>
<td>NUTRI 112</td>
<td>Clinical Experience-Nutrition Care Management</td>
<td>2.5</td>
</tr>
<tr>
<td>NUTRI 120</td>
<td>Management of the Dietary Department in Health Care Facilities</td>
<td>2.5</td>
</tr>
<tr>
<td>NUTRI 122</td>
<td>Clinical Experience in Health Care Facilities</td>
<td>2.5</td>
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</table>

NUTRI 110 Nutritional Care Management 3 Units

Corequisite: NUTRI 110.
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.

NUTRI 112 Clinical Experience-Nutrition Care Management 2.5 Units

Corequisite: NUTRI 110.
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
Enrollment Limitation: Current TB clearance and other immunizations required by clinical facility.

NUTRI 120 Management of the Dietary Department in Health Care Facilities 3 Units

Corequisite: NUTRI 122.
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.

This course reviews the standards of management and food preparation as it applies to quantity food production in health care facilities. The topics include types and components of food production systems, work flow, menu implementation, emergency planning, maintenance of equipment, food production procedures, sanitation and safety, and dietary staff schedules and management.

NUTRI 122 Clinical Experience in Health Care Facilities 2.5 Units

Corequisite: NUTRI 120.
Hours: 18 hours LEC; 90 hours LAB

This course is designed to be taken concurrently with NUTRI 120. This course includes 90 hours of clinical experience in the dietary departments of participating acute hospitals and long term care facilities. The clinical experience is performed under professional supervision.

NUTRI 294 Topics in Nutrition and Foods .5-4 Units

Hours: 72 hours LEC

This course provides opportunities to study current, controversial topics in nutrition which are either not included in current offerings or require emphasis beyond that offered in existing courses. The course may be taken four times for a maximum of 6 units providing there is no duplication of topics.

NUTRI 300 Nutrition 3 Units

Advisory: ESLL 320, or placement through the assessment process; ENGWR 102 or 103, and ENGRD 116, or ESLR 320, ESLL 320, and ESLW 320, or placement through assessment process.

General Education: AAAS Area III(b); AAAS Area IV; CSU Area E1; TCSU NUTR 110
Course Transferable to UC/CSU

This is an in-depth study of the essential nutrients and their functions, and the chemical compositions of foods and their utilization in the body. This course includes discussion of the nutritional values of foods, current topics in nutrition, and individuals’ nutrition needs throughout the life cycle. This course is not open to students who have completed NUTRI 302.

NUTRI 302 Nutrition for Physical 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; OR placement through assessment process.

General Education: AAAS Area III(b); AAAS Area IV
Course Transferable to CSU

This course presents a comprehensive study of nutrition and fitness as they interrelate and apply to fitness and sport skill training and to athletic performance. The course 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. Specifically, nutrition is related to muscle strength development, cardiovascular fitness, and body composition. Emphasis on current nutrition practices related to athletic performance. Designed for individuals interested in the study of how nutrition enhances athletic performance. Not open to students who have completed NUTRI 300.
NUTRI 305 Nutrition for Health  2 Units
Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116, or ESL 320, ESLR 320, and ESLW 320; or placement through the assessment process.
General Education: AA/AS Area III(b)
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: PET 402
Course Transferable to CSU
Hours: 36 hours LEC
This course is part of the Fitness Specialist Certificate Program. Basic principles of nutrition are studied and the ramifications of nutrition on fitness training. Not open to students who have completed PET 402.

NUTRI 310 Cultural Foods of the World  3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116, or ESLR 320, and ESLW 320; or placement through assessment process
General Education: AA/AS Area VI
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course compares various western and non-western culture food customs and patterns including their social, religious, economic, and aesthetic significance. Ethnocentrism, gender-related stereotypes, and racism as they relate to the availability, distribution, and preparation of food throughout the world will be compared. The nutritional status of various cultures as it relates to geographic agricultural and socioeconomic factors will be studied.

NUTRI 320 Children's Health, Safety and Nutrition  3 Units
Same As: ECE 415
Advisory: ENGWR 102 or 103, and ENGRD 116, or ESLR 320, and ESLW 320 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 examines basic nutrition, health, and safety needs of children from the prenatal period through school age. Topics include identification of nutrients in foods as they affect a child’s physical and mental development and standards for the maintenance of optimal health, safety, and nutritional status of children at home and in group care. Projects relating to children's nutrition, health, and safety are required as part of the course. This course is not open to students who have taken ECE 415.

NUTRI 324 Nutrition for Healthy Aging  3 Units
Same As: GERON 340
Advisory: ENGRW 102 or 103, and ENGRD 116, or ESL 320, ESLR 320, and ESLW 320, or placement through the assessment process.
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to nutritional concerns as they apply to the elderly, their implications in the aging process, and the environmental, economic and culture factors affecting nutritional status. This course is not open to students who have completed GERON 340.
Paramedic Degree and Certificate

Paramedicine is an allied health specialty whose practitioners respond to emergencies before a patient reaches a hospital, rendering basic and advanced medical treatment before and during transport to a medical facility. Classroom, clinical and field internship training prepares paramedics to assess and treat a wide variety of medical emergencies. The knowledge, skills and experience gained through the paramedic program allows students to meet the responsibilities outlined in the Department of Transportation’s National Standard Paramedic Training Curriculum.

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.

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.
- 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.

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 www.arc.losrios.edu/edhealth/paramed.html. Applications for Spring admission will be available by 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, inoculations, drug screen, background check, and malpractice insurance prior to entering the second semester.

Requirements for Degree Major or Certificate  36.5-43.5 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIOL 102</td>
<td>Intro to Concepts of Human Anatomy and Physiology (4)</td>
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<tr>
<td>or BIOL 430</td>
<td>Anatomy and Physiology (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>
<td>0.5 - 1.5</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>6</td>
</tr>
<tr>
<td>PMED 130</td>
<td>Prehospital Field Internship</td>
<td>14</td>
</tr>
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</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.

PMED 100  Emergency Medical Technician - Basic  5 Units

Same As: FT 200
Prerequisite: HEED 323 with a grade of “C” or better
Enrollment Limitation: Not open to students with a current EMT - Basic certificate.
Hours: 72 hours LEC; 72 hours LAB
This course is designed to provide instruction to the level of Emergency Medical Technician - Basic. Topics include skills necessary to provide emergency medical care at a basic life support level with a fire, ambulance, or other specialized service. This course is conducted in compliance with Title 22, Division 9, Chapter 2 of the California Code of Regulations and Emergency Medical Technician - Basic (EMT-I). A “C” or better is required for certification as Emergency Medical Technician - Basic. Field trips are required. This course may be taken four times for credit.

PMED 101  Pre-paramedic Emergency Medical Technician - Basic Skills  5 Units

Prerequisite: Current certification of Emergency Medical Technician - Basic (EMT-B).
Hours: 8 hours LEC; 16 hours LAB
This course is designed for the Emergency Medical Technician - Basic (EMT-B) to review a variety of emergency field skills in preparation to begin a field internship. It also includes a selected number of EMT-B skills used as part of the skills competency requirement by the National Registry of Emergency Medical Technicians. This course may be taken four times. Credit/No Credit Only.
PME 102 Emergency Medical Technician - Basic, Prehospital Field Internship 5 Units
Prerequisite: PMED 101.
Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116, or ESLR 320, and ESLW 320; MATH 32.
Hours: 18 hours LEC; 216 hours LAB
This course is an internship that provides opportunities to refine hands-on basic life support skills in the pre-hospital setting. This internship is in preparation for application to the American River College, Paramedic Education Program.

PME 105 Prehospital Calculations .5 Units
Prerequisite: Current certification as an EMT-basic in the state of California, as required by Title 22.
Advisory: MATH 32.
Hours: 9 hours LEC
This course provides basic instruction in calculating medication dosages in the pre-hospital setting.

PME 110 Introduction to Advanced Prehospital Care 12 Units
Prerequisite: Acceptance into the Paramedic Program.
Hours: 144 hours LEC; 216 hours LAB
This course contains the didactic material and the related skills necessary to establish a foundation for subsequent prehospital assessment and management. Topics include anatomy and physiology, pharmacology, intravenous therapy, basic and advanced life support, electrocardiography, medical/surgical, pediatric, obstetrics, and psychiatric/geriatric problems. Crisis intervention, strategies, and medical legal concepts are also discussed.

PME 111 Advanced Prehospital Care: Preparatory and Airway Management 4.5 Units
Enrollment Limitation: Acceptance into the Paramedic Program.
Hours: 54 hours LEC; 81 hours LAB
This course contains the initial didactic material and related skills necessary to establish a foundation for subsequent prehospital assessments and management. Topics include anatomy and physiology, pharmacology, intravenous therapy, basic and advanced airway control techniques and respiratory emergency management. The completion of PMED 111, PMED 112 and PMED 113 is equivalent to PMED 110. This course is not available to those who have completed PMED 110.

PME 112 Advanced Prehospital Care: General Medical Emergencies 2.5 Units
Prerequisite: PMED 111 (Advanced Prehospital Care-Preparatory and Airway Management) with a "B" or better.
Hours: 27 hours LEC; 54 hours LAB
This course contains the didactic material and the related skills necessary to assess and properly manage prehospital patients with medical complaints. Topics include respiratory and cardiac pathologies. The completion of PMED 111, PMED 112 and PMED 113 is equivalent to PMED 110. This course is not available to those who have completed PMED 110.

PME 113 Advanced Prehospital Care: Trauma and Pediatric Care 5 Units
Prerequisite: PMED 112 (Advanced Prehospital Care-General Medical Emergencies) with a "B" or better.
Hours: 63 hours LEC; 81 hours LAB
This course contains the didactic materials and related skills necessary to assess and manage prehospital trauma and pediatric patients. Topics include pediatrics and obstetrics, kinematics of trauma, soft-tissue injuries, toxicology, substance abuse and advanced ambulance operations. The completion of PMED 111, PMED 112 and PMED 113 is equivalent to PMED 110. This course is not available to those who have completed PMED 110.

PME 120 Clinical Internship 6 Units
Prerequisite: PMED 110, with a grade of "C" or better; current Emergency Medical Technician I certification.
Hours: 36 hours LEC; 216 hours LAB
This course is designed to provide an opportunity to apply the cognitive knowledge and skills gained in the Paramedicine course to patient care in a hospital setting. This course provides for increasing assessment techniques and advanced skills.

PME 130 Prehospital Field Internship 14 Units
Prerequisite: PMED 120 with a grade of "C" or better.
Enrollment Limitation: Current EMT-Basic(1) certification. After enrollment, all students are required to successfully complete a background check prior to starting a field internship assignment.
Hours: 54 hours LEC; 600 hours LAB
Under the direct supervision and evaluation of a licensed paramedic or a mobile intensive care nurse, the intern completes a prehospital field experience. This internship provides the paramedic student with hands-on prehospital experience and is the final course in the series preparing the for a California paramedic license.

PME 140 Pediatric Advanced Life Support Certification (PALS) .5 Units
Prerequisite: Current Provider C Basic Cardiac Life Support card or county-approved equivalent certificate. Current licensure as a paramedic, nurse, physician, allied health professional or current enrollment in an Allied Health program.
Hours: 6 hours LEC; 12 hours LAB
This course provides education modules for health care professionals specific to pediatric emergencies. Certification in pediatric advanced life support is granted to students who successfully complete the course. This course may be taken four times.

PME 142 Advanced Cardiac Life Support Certification .5 Units
Prerequisite: Current Provider C Basic Cardiac Life Support Card or equivalent licensure as a paramedic, nurse, physician, allied health professional or current enrollment in an Allied Health program.
Hours: 6 hours LEC; 12 hours LAB
This course provides education modules for health care professionals specific to pediatric emergencies. Certification in advanced cardiac life support is granted to students who successfully complete the course. This course may be taken four times.

PME 160 Introductory Wilderness Medicine 2 Units
Prerequisite: Current certification in provider level Cardiopulmonary Resuscitation.
Advisory: Basic First Aid.
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. Anatomy and physiology, care of traumatic injuries, patient assessment, environment injuries, medical emergencies, and common simple wilderness medical problems are included. Additionally, basic wilderness survival for the initial responder, and selecting and caring for wilderness medical equipment and supplies will be covered. This course emphasizes improvisation care, options, and long term care in field settings.
Pmed 161 Advanced Wilderness Medicine  2 Units  
Prerequisite: PMED 160 or EMT, or other health care provider such as nurse or doctor. 

Hours: 27 hours LEC; 27 hours LAB  
This course allows the student to gain an advanced level of medical care in the wilderness setting. Anatomy and physiology, improvised airway control, principles of musculoskeletal care, integration of field, synthesis of wilderness medicine and urban care, and common simple wilderness medical problems are included. Additionally, basic wilderness survival for the wilderness responder, and selecting and caring for wilderness medical equipment and supplies will be 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 the student with 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 EMT/Paramedic, and selecting and caring for rescue equipment and supplies will be 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. This course may be taken four times.

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. This course may be taken four times.

Pmed 295 Independent Studies in Paramedic  1-3 Units  

Hours: 54 hours LEC  

Pmed 1000 Emergency Medical Technician - Basic: Refresher  1.5 Units  
Enrollment Limitation: Current certification as an Emergency Medical Technician - Basic  

Hours: 23 hours LEC; 12 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. This course may be taken four times. Credit/No Credit only.
Philosophy is the logical examination of the fundamental issues that people have pondered for more than 2500 years. What is reality and what is beauty? What is knowledge and truth? What is good and just? Philosophy courses are directed toward understanding these and other questions in their historical and cultural contexts, and applying insights to contemporary life. The study of philosophy is a key component in improving one’s critical thinking skills.

PHIL 300  Introduction to Philosophy  3 Units
Advisory: ENGWR 102, 103, or ESLW 320 or placement by assessment process.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This class is an inquiry into the traditional and historical views of Western Civilization’s perennial human problems, e.g., peace, truth, equality, good and happiness, which provides a clarification of the problems as well as ultimate justification of each claim. It focuses on critical thinking techniques and applies them to selected philosophical topics such as human freedom, the nature and limits of knowledge, skepticism, empiricism, rationalism and the application of these to politics.

PHIL 310  Introduction to Ethics  3 Units
Advisory: ENGWR 102, 103, or ESLW 320 or placement by assessment process.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a survey of ideas proposed by important philosophers to describe and understand the conceptual foundations of ethical and moral topics such as human freedom, the nature and limits of knowledge, critical thinking techniques and the application of these to politics.

PHIL 315  Ethics and Morals in Business  3 Units
Advisory: ENGWR 102 or 103 or ESLW 320 or placement through assessment process.
Course Transferable to UC/CSU
Hours: 54 hours LEC
Ever since the Industrial Revolution, there have been problems and issues concerning the moral and ethical nature of various business endeavors. This course will examine most of the important issues of economic activity, e.g., property rights, employee rights, stockholders’ rights and the responsibilities of all of these—all of them with appropriate moral issues and criteria. This course will rely on the great moral philosophers to help address these issues, using the economists to set the issues.

PHIL 320  Logic and Critical Reasoning  3 Units
Advisory: ENGWR 102, 103, or ESLW 320 or placement by assessment process.
General Education: AA/AS Area II(b); CSU Area A3
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to basic principles of good reasoning. It focuses on recognizing arguments and identifying their premises and conclusions. It examines the distinction between inductive and deductive standards of evaluation and includes an overview of types of inductive reasoning, deductive argument patterns, use and misuse of language, and fallacious reasoning. Practical application to everyday life is emphasized.

PHIL 325  Symbolic Logic  3 Units
Same As: MATH 320
Prerequisite: PHIL 320 or MATH 110, and MATH 120 with a grade of “C” or better.
General Education: AA/AS Area II(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers an introduction to symbolic logic including the logic of sentences (the statement of calculus) and the logic of classes and relations (the predicate calculus) together with an introduction to the nature and development of deductive systems. Applications include examples of logic used in elementary mathematics and the analysis of verbal arguments. Not open to students who have completed MATH 320.

PHIL 330  History of Classical Philosophy  3 Units
Advisory: ENGWR 102, 103, or ESLW 320 or placement by assessment process.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This class addresses the development of philosophical thinking in the West from the pre-Socratic philosophers to Thomas Aquinas, its bearing on some contemporary issues in philosophy, and its influence in shaping philosophy as we know it today.

PHIL 331  History of Modern Philosophy  3 Units
Advisory: ENGWR 102, 103, or ESLW 320 or placement by assessment process.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course traces the development of philosophical thinking in the West from the Renaissance to the present, and addresses its bearing on contemporary issues, and its influence in shaping the modern world.

PHIL 350  Philosophy of Religion  3 Units
Advisory: ENGWR 102, 103, or ESLW 320 or placement by assessment process.
General Education: AA/AS Area I; CSU Area C; 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, good and evil. It also includes an investigation into religious experience as well as arguments for and various forms of religious belief.
PHIL 353  Religions of the Far East  3 Units
Advisory: ENGWR 102, 103, or ESLW 320 or placement by assessment process.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers an introduction to the major religions of the Far East -- Hinduism, Jainism, Buddhism, Sikhism, Taoism, Confucianism, Shinto. The origins, myths, basic teachings, development, and modern forms of each religion will be surveyed through comparison and contrast with each other and with Western tradition in order to clarify concepts and practices. The present influences of these religions on Western change and on the religions between cultures will be of focal interest.

PHIL 354  Religions of the West  3 Units
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
Study of the origins, history, development, important teachings, mythology, and modern forms of the major Western religions-- Judaism, Christianity, and Islam. Zoroastrianism, a forerunner of these, will also be examined in detail. In order to clarify concepts and practices, comparison and contrast with other religions will be used as a basis for discussion. The influences of these religions on the Western world will be identified and examined.

PHIL 360  Philosophy of Social Sciences  3 Units
Advisory: ENGWR 102, 103, or ESLW 320 or placement by assessment process.
General Education: AA/AS Area I; CSU Area C; CSU Area D7; IGETC Area 4G
Course Transferable to UC/CSU
Hours: 54 hours LEC
This class is a survey of classic and modern thought on basic problems selected from at least two of the following fields: Theories of reality, the notion of justice, political philosophy, philosophy of religions, and esthetics. The emphasis will be on the application of representative views to modern life.
The ARC physical education program offers a wide variety of courses that improve physical fitness, sport skills, and dance performance abilities.

The UC system has a limitation on the number of units of physical education courses which can be transferred. The CSU system has no such limitation, but there are restrictions placed on the number of physical education units which can be applied toward the major. Refer to the catalog of the transfer institution of your choice for detailed information.

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.

Semester activity courses may be taken up to four times in each activity area (e.g. four Tennis, four Weight Training, four Modern Dance, etc) unless otherwise noted in the units column. The prefixes “ADAPT, DANCE, FITNS, PACT, TMACT, and SPORT” refer to courses used to satisfy the physical education requirement.

Courses which are designated with a PET prefix are theory-oriented rather than activity-oriented and DO NOT satisfy the graduation requirements.

Fitness Specialist Certificate
This one-year program prepares students for employment in the health and fitness industry and equips them with the knowledge and hands-on experience necessary to begin a career in the dynamic field of fitness. Upon completion of this certificate, the students are prepared to take national certification exams such as the American College of Sports Medicine (ACSM) or the American Council of Exercise (ACE).

Career Opportunities
The fitness certificate program is ideal for anyone desiring an entry-level position as a personal trainer, fitness center or health club employee, group exercise instructor, or strength and conditioning coach.

Requirements for Certificate 17.5 Units
PET 400 Applied Physiology of Exercise .............................................. 2
PET 401 Applied Kinesiology ................................................................. 2
PET 402 Nutrition for Fitness ................................................................. 2
PET 403 Fitness and Exercise Assessment ............................................. 1
PET 404 Identification and Management of Fitness Injuries ............. 2
PET 405 Special Populations ................................................................. 1
PET 406 Techniques of Instruction - Strength Training ................. 2
PET 407 Techniques of Instruction - Aerobics and Group Fitness .... 2
PET 408 Administration of Fitness Programs ....................................... 2
And a minimum of 1.5 units from the following: .................................. 1.5
PET 497 Internship in Physical Education - Theory (1 - 4)

Certificates:  Fitness Specialist

Adapted PE

ADAPT 310 Adapted Lifetime Sports 1 Unit
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLWR 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: A physician’s statement verifying the disability, contraindication, and recommended activities.
Course Transferable to UC/CSU
Hours: 54 hours LAB
Adapted Lifetime Sports is a physical education class designed to introduce students with physical disabilities to a variety of sports. Modifications and assistive devices will be used to enable students to safely participate in sports such as, but not limited to, archery, volleyball, tennis, soccer, softball, basketball, and golf.

ADAPT 314 Wheelchair Sports and Games 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: A health care professional’s statement describing 1) the student’s disability, 2) contraindications, and 3) recommended activities
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is designed for individuals with physical disabilities who are confined to a wheelchair or who are ambulatory, but more successful in sports when using a wheelchair. Sports will include, but not be limited to, basketball, quad rugby, volleyball, badminton, and tennis. This course may be taken four times for credit.

ADAPT 316 Adapted Personal Safety 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: A physician’s statement describing 1) student’s disability, 2) contraindications, and 3) recommended activities
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is designed for the student who is unable to participate in the 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. This course may be taken four times.

ADAPT 330 Adapted Weight Training and Fitness 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: A statement signed by a health professional verifying the disability, contraindications, and recommended activities
Course Transferable to UC/CSU
Hours: 54 hours LAB
Adapted weight training and fitness is designed for the student who is unable to participate in a general physical education activity class. This course includes individualized physical fitness programs including activities to develop muscular strength, flexibility, and cardiovascular endurance. This course may be taken four times for credit.
DANCE 302  African Dance  1 Unit  
General Education: AAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course covers basic movements from African and West African styles of dance. Afro-Haitian, Afro-Caribbean, and Congolese styles may also be included. Classes consist of beginning level warm ups, across the floor movement, and center combination movements to varied drum rhythms. This course may be taken four times for credit.

DANCE 304  Polynesian Dance  1 Unit  
General Education: AAS 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. Class sessions consist of warm ups, center dances, and cultural vocabulary. An opportunity to study the history, origin, and cultural importance of Polynesian dance is presented. This course may be taken four times for credit.

DANCE 305  Hawaiian Dance  1 Unit  
Course Transferable to CSU  
Hours: 54 hours LAB  
This course covers the basic components of Hawaiian dance within its traditional context. Class sessions consist of warm ups, center dances, and cultural dance vocabulary. An opportunity to study the history, origin, and cultural importance of hula is also presented. Basic Hawaiian vocabulary for dance and instructions for creating floral adornments are included. This course may be taken four times for credit.

DANCE 310  Jazz Dance  1 Unit  
General Education: AAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course is offered as beginning or intermediate jazz dance. Beginning jazz dance covers basic skills of alignment, balance and technique. It gives a foundation in the basic steps, vocabulary, history, and traditions of jazz dance. Intermediate jazz dance refines the basic skills, introduces varied rhythms and methods of counting, and initiates more complex transitions and steps in center combinations. This course may be taken four times for credit.

DANCE 311  Urban Hip Hop  1 Unit  
General Education: AAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course includes basic urban-style Hip Hop moves and rapid level changes for floor work. Choreography is provided on a bare bones theme and developed according to individual style, ability and personal interpretation. The history of this genre and the traditional competitive elements of Hip Hop dance are examined, as well as the role of dance in Hip Hop culture. An opportunity for Freestyle, Old Style, Poppin’, Lockin’, and Dance Poetry exploration is offered. This course may be taken four times for credit.

DANCE 320  Ballet  1 Unit  
General Education: AAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course is offered as beginning or intermediate ballet. Beginning ballet covers basic skills, alignment, steps and technique suitable for beginners. It gives a foundation in the etiquette, vocabulary, history and traditions of classical ballet. Intermediate ballet refines the basic skills, introduces more complex steps and initiates more difficult center combinations. Both levels include a progression of barre exercises and warm-ups designed to develop strength and range of motion as well as balance and alignment. Classical ballet technique, and vocabulary are emphasized at the barre and repeated across the floor and in center. This course may be taken four times for credit.

DANCE 330  Modern Dance  1 Unit  
General Education: AAS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course is offered as beginning or intermediate modern dance. Beginning modern dance includes basic movement technique, align-
ment and vocabulary. It gives a foundation in the history and traditions of modern dance in America and encourages individual expression and creativity. Intermediate modern dance refines the basic skills and utilizes improvisation and problem solving techniques in dealing with space, design, time, shape, and energy. This course may be taken four times for credit.

DANCE 340 Ballroom Dance 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is offered as beginning or intermediate ballroom dance. Beginning ballroom covers basic partnering skills, alignment, technique, and footwork. It gives a foundation in the etiquette, vocabulary and traditions of ballroom dance. Intermediate ballroom refines the basic skills, introduces varied rhythms, and initiates more complex foot patterns and partnering. This course may be taken four times for credit.

DANCE 348 Ballroom Challenge: Competition and Performance 1 Unit
Enrollment Limitation: Audition
Course Transferable to CSU
Hours: 54 hours LAB
This course includes ballroom training for competition and performance. Dancers work on an intermediate to advanced level and perform in at least three basic styles, such as Waltz, Foxtrot, and East Coast Swing, as well as three Latin styles. Topics include audition skills, 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. This course may be taken four times for credit.

DANCE 350 Country Western Line Dance 1 Unit
Advisory: Country Western Line Dance, Beginning; ENGR 102 or 103, and ENGR 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.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course develops intermediate skills selected from current line dances that present an amalgamation of step patterns. It refines country western techniques relative to line dancing, rhythm and nonverbal communication.

DANCE 360 Tap Dance 1 Unit
Advisory: ENGR 102 or 103, and ENGR 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.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
The beginning course covers basic tap technique, warm-ups, drills and rhythm forms. The class will focus on basic steps and beginning level group routines with an emphasis on balance, alignment and rhythm analysis. The intermediate course includes tap technique, warm-ups, drills and rhythm forms at the intermediate level. The class will focus on intermediate steps, riffs, and group routines with an emphasis on clean taps, speed, and rhythm analysis.

DANCE 374 Dance Production 3 Units
Advisory: ENGR 102 or 103, and ENGR 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.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: By audition; requires specific skills such as performance ability and dependability, double turns, 90 degree kick and work on and intermediate level, or with equivalent skills as determined by the instructor.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This is a lecture/performance class with an emphasis on performance skills, intermediate dance technique, and student choreography for performance.

DANCE 375 Jazz Dance Performance Group 3 Units
Advisory: ENGR 102 or 103, and ENGR 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.
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 jazz dance lecture/performance for intermediate to advanced dancers with an emphasis on community outreach, dance demonstrations and performance. The history of jazz dance in American is covered. Opportunity for ethnic styles to be compared and contrasted. Student choreography and performance are included. Students will learn lecture demonstration organizational skills.

DANCE 376 Choreography 1 Unit
Advisory: ENGR 102 or 103, and ENGR 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.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course covers basic elements of choreography and provides an opportunity to explore choreographic structure. Choreographic concepts will be introduced, developed, and applied to various dance styles in a manner appropriate for all levels of dance skill. Emphasis will be on the choreographic process.

DANCE 377 Theatre Dance 1 Unit
Advisory: ENGR 102 or 103, and ENGR 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.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is designed to provide students with the opportunity to experience theatre dance and gain skills in musical theatre movement. Movement covered will include choreographed routines, audition techniques for musical theatre dance and basic group and partnering skills. There will be an opportunity for student choreography.

DANCE 498 Work Experience in Dance 1-4 Units
Corequisite: Must be enrolled in a minimum of 7 units including units of work experience.
General Education: AA/AS Area III(a)
Enrollment Limitation: Enrollment is dependent upon employment or placement as a volunteer within a professional dance setting.
Course Transferable to CSU
Hours: 18 hours LEC; 300 hours LAB
This course provides supervised work experience in a professional dance company, studio, or performance group. It may include hours in office, promotion and outreach work as well as hours in teaching dance classes, taking company classes, rehearsal, choreography and performance. This course may be taken four times for credit.

Fitness

FITNS 303 Dance Aerobics 1 Unit
Advisory: ENGR 102 or ENGR 103, ENGR 116 or ESLR 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
A physical conditioning program designed to increase cardiovascular efficiency, flexibility and endurance through choreographed dances, and rhythmic exercises.

**FITNS 305 Hip Hop Aerobics 1 Unit**
Advisor: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.
Course Transferable to UC/CSU
Hours: 54 hours LAB
Based on hip hop dance movement, this course is designed to promote cardiovascular fitness, flexibility, and overall strength by incorporating hip hop dance style, level changes, and rhythm into an aerobic and anaerobic conditioning program.

**FITNS 306 Aerobics: Cardio-Kickboxing 1 Unit**
Advisor: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course emphasizes proper alignment, execution, and timing of faster paced movements from kickboxing, boxing, and aerobic dance to improve cardiovascular fitness.

**FITNS 307 Aerobic Mix Workout 1 Unit**
Advisor: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.
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. The emphasis is on rotating aerobic forms such as aerobic dance, step, cardio-kickboxing, and aerobic circuit to keep the workouts challenging and interesting. Basic heart rate calculations, nutrition, and workout facts will be covered.

**FITNS 308 Step Aerobics 1 Unit**
Advisor: ENGWR 102 or ENGRWR 103, ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
A physical conditioning program designed to improve cardiovascular fitness and encourage better endurance, flexibility and strength through the use of step aerobics training methods. This course includes instruction in rhythmic, choreographed step routines, basic stretch and toning exercises and provides information related to overall health and fitness.

**FITNS 310 Aqua Aerobics 1 Unit**
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This is a fitness course using the resistance of water for low-or non-weight bearing exercise for improvement in cardiovascular fitness, muscular endurance, flexibility and strength. The course includes exercises in deep and shallow water and provides information related to overall health and fitness. No swimming skills are needed. This course may be taken four times for credit.

**FITNS 312 Aquatic Fitness 1 Unit**
Advisor: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.
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 will be emphasized, stroke efficiency, and lap swimming will be included.

**FITNS 314 Deep Water Jogging 1 Unit**
Advisor: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This fitness course uses the resistance of water for non-weight bearing exercises. Emphasis will be on cardiovascular fitness, muscular endurance, strength and flexibility. Progress will be monitored through appropriate fitness testing. No swimming skills are needed. An optional flotation belt will be provided.

**FITNS 316 Lap Swimming 1 Unit**
Advisor: Swimming, Advanced; ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course includes a workout approach that emphasizes aerobic and anaerobic fitness through lap swimming. It is a self-paced class and utilizes interval training, cardiovascular conditioning, swimming technique, and aerobic training principles.

**FITNS 321 Core Conditioning 1 Unit**
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course incorporates a variety of activities including exercises with the stability ball, Bosu ball, Pilates mat, and yoga styles of core work to enhance abdominal, lower back, gluteal, and hip strength with toning benefits to the entire body. This course may be taken 4 times for credit.

**FITNS 325 Pilates 1 Unit**
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
The focus of this course is on precision alignment, core strength, and building an awareness of the body. Pilates involves a kinesthetic awareness that builds core strength and confidence in movement. Mat and wall stretches, exercises and relaxations are used to encourage flexibility, balance and coordination beginning with the deep postural muscles of the body. This course may be taken four times for credit.

**FITNS 331 Boot Camp Fitness 1 Unit**
Advisor: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is designed as an intense boot camp fitness class conducted on and off campus using indoor and outdoor facilities. Training includes aerobic, anaerobic conditioning, strength and endurance training, individual and team fitness concepts. May be taken four times for credit.
**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 four times for credit.

**FITNS 339  Triathlon Training**  1 Unit  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course covers physical fitness triathlon training sessions utilizing a variety of training methods 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. This course may be taken four times for credit.

**FITNS 340  Fire Fitness I - Fire Academy Recruit**  4 Units  
Advisory: ENGWR 102 or ENGWR 103, ENGRD 116 or ESLR 320, ELSW 320, or placement through assessment process.  
General Education: AA/AS Area III(a); CSU Area E2  
Enrollment Limitation: Successful completion of Fire Academy pre-fitness test.  
Course Transferable to UC/CSU  
Hours: 48 hours LEC, 72 hours LAB  
This course is an activity and lecture class for the cadets in the Sacramento Regional Fire Academy. The course includes instruction in an in-depth understanding of the concepts of exercise and nutrition. A regular physical fitness training program will be conducted toward improving cardiovascular endurance, muscular strength and body flexibility. The class will address improving the cadet’s level of fitness and offer job-related fitness training.

**FITNS 341  Fire Fitness II- In Station Fitness**  2 Units  
Advisory: ENGWR 102 or ENGWR 103, ENGRD 116 or ESLR 320, ELSW 320, or placement through assessment process.  
General Education: AA/AS Area III(a); CSU Area E2  
Enrollment Limitation: Fire Fitness Training - Fire Academy Recruit  
Course Transferable to UC/CSU  
Hours: 18 hours LEC, 54 hours LAB  
This is a physical fitness course for employed fire fighters. It includes medical testing, physical fitness testing, lectures on fitness, nutrition, and stress management, and individually programmed workouts for fire fighters, with periodic progress testing. As a legally mandated occupational requirement, this course may be repeated annually by firefighters.

**FITNS 350  Fitness And Weight Control**  2 Units  
Advisory: ENGRD 116, ENGWR 102, ENGWR 103, ESLR 320, ELSW 320, ENGRD 116 or ESLR 320, ELSW 320, or placement through assessment process.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 18 hours LEC, 54 hours LAB  
This course is designed to assess and improve physical fitness levels, and encourage a healthy attitude toward figure evaluation and weight control. Students receive instruction concerning the theories and practical activities involved in obtaining and maintaining an appropriate level of physical fitness.

**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 is specifically designed for adults starting a fitness program. It provides safe and effective exercises to gain balance, flexibility and mobility. Students develop a personal fitness program that can also be carried out at home. Periodic fitness assessments measure progress in individualized fitness program.

**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 presents the student with a system of exercise using weights and cardiovascular activities to provide a balanced approach to physical fitness training. There is an emphasis on increasing strength, muscular endurance, cardiovascular endurance and flexibility while decreasing body fat. This course may be taken four times.

**FITNS 381  Weight Training**  1 Unit  
Advisory: ENGWR 102 or ENGWR 103, ENGRD 116 or ESLR 320, ELSW 320, or placement through assessment process.  
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 and methods that promote muscular strength and endurance. Attention is also given to muscle tone, flexibility, and cardiovascular fitness.

**FITNS 385  Weight Training for Competition**  1 Unit  
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course is a strength/power training program for students involved in intercollegiate athletics. It is designed to develop strength, power, and muscle endurance appropriate to specific athletic events.

**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 Hatha Yoga emphasizes breathing, stretching, and relaxing techniques. Yoga positions and philosophies are examined. This course may be taken four times.

**FITNS 395  Stretch**  1 Unit  
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course emphasizes stretching for health and increased range of motion. It is designed to provide 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 stress reduction and weight control. Attention is given to increasing cardiovascular efficiency, muscular strength and endurance. Individual workout schedules are based on heart rate readings related to a variety of training methods.
FITNS 405 Marathon Training 1 Unit
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course emphasizes a personal approach to attaining a higher level of fitness through the attempt to complete a marathon (26.2 miles) in one day. Individual workout programs will be established and monitored to include endurance and self-pacing. Pre- and post-fitness testing will also be evaluated.

FITNS 412 Martial Arts: Taekwondo 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 physical fitness program that concentrates on muscle development, improvement of coordination and flexibility, and increased aerobic capacity through the practice of various poomsae, sparring techniques and self-defense movements used in martial arts. It is offered at beginning, intermediate, and advanced levels. This course may be taken four times. Fields 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. This course may be taken four times for credit.

FITNS 438 Water Safety Instructor (Lifeguard Training) 3 Units
Prerequisite: FITNS 440 (Advanced) with a grade of “C” or better.
Corequisite: HEED 316 or 322.
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course includes teaching techniques and preparation for instructing swim courses. The emphasis is on teacher training, life guarding knowledge and skills. Completion of this course with a grade of B or better confers an American Red Cross Certification for “Lifeguard Training” and “Water Safety Instructor.”

FITNS 440 Swimming 1 Unit
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
The beginning class is designed for non-swimmers, students who cannot swim one length of the pool (25 yards). Instruction will be given in physical and psychological adjustment to the water, basic swimming techniques, and safety skills. The intermediate course provides instruction in the following swimming strokes: streamline position, front and back crawl, elementary back, breaststroke, side stroke, and butterfly kick. Related aquatic techniques of diving, treading, turns, sculling, basic rescue, and survival skills will also be taught. The advanced course includes advanced techniques in freestyle, backstroke, breaststroke, butterfly, individual medley, touch turns, flip turns, and starts. In addition, various aerobic and anaerobic training methods will be taught. Endurance and stroke efficiency will be emphasized.

FITNS 450 Personal Safety 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 9 hours LEC, 27 hours LAB
This course provides the knowledge and 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.
play, simple strategies, and the etiquette of the sport. Intermediate tennis focuses on refining basic skills, introducing more complicated technique, teaching players more advanced strategies for singles, and includes an introduction to doubles. In advanced tennis, players work on improving the more complicated skills and techniques of the sport and competitive play takes a higher priority. This course may be taken four times for credit.

PACT 394 Tennis, Doubles 1 Unit
Prerequisite: PACT 390 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; OR placement through assessment process.
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. May be taken four times for credit.

PACT 400 Track and Field 1 Unit
Advisory: ENGWR 102 or ENGWR 103, ENGRD 116, or ESLR 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course includes skill development in men's and women's track and field activities including running, jumping, and throwing events.

SPORT 300 Baseball, Intercollegiate-Men 2 Units
Advisory: ENGWR 102 or ENGWR 103, ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course covers fundamentals, rules, individual and team strategies appropriate to intercollegiate baseball.

SPORT 311 Basketball, Intercollegiate-Men, Fall 1 Unit
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESlW 320 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 90 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 1 Unit
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESlW 320 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 90 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 316 Basketball, Intercollegiate-Women, Fall 1 Unit
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESlW 320 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 90 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 1 Unit
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESlW 320 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 90 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 2 Units
Advisory: ENGWR 102 or ENGWR 103, ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course is an intercollegiate sport providing opportunities for competition in women's cross country. It provides instruction in cross country fundamentals and skills, including rules and individual and team strategies appropriate for intercollegiate athletic competition. This course may be taken three times for credit.

SPORT 325 Cross Country, Intercollegiate-Women 2 Units
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.

SPORT 330 Football, Intercollegiate-Men 2 Units
Advisory: ENGWR 102 or ENGWR 103, ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.

SPORT 340 Golf, Intercollegiate-Men 2 Units
Advisory: ENGWR 102 or ENGWR 103, ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.
SPORT 345  Golf, Intercollegiate-Women  2 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; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.

SPORT 350  Soccer, Intercollegiate-Men  2 Units
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 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 strategy appropriate for intercollegiate athletic competition. This course may be taken 3 times for credit.

SPORT 355  Soccer, Intercollegiate-Women  2 Units
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course is an intercollegiate sport providing opportunity for competition in women's soccer. It provides soccer fundamentals and skills and includes rules, individual and team strategy appropriate for intercollegiate athletic competition. This course may be taken 3 times for credit.

SPORT 365  Softball, Intercollegiate-Women  2 Units
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 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 three times for credit.

SPORT 370  Swimming and Diving, Intercollegiate-Men  2 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; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course in swimming and diving for men includes fundamentals, rules, individual technique and team strategy appropriate to intercollegiate athletic competition.

SPORT 375  Swimming and Diving, Intercollegiate-Women  2 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; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course in swimming and diving for men includes fundamentals, rules, individual technique and team strategy appropriate to intercollegiate athletic competition.

SPORT 380  Tennis, Intercollegiate-Men  2 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; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.

SPORT 385  Tennis, Intercollegiate-Women  2 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; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.

SPORT 390  Track and Field, Intercollegiate-Men  2 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; OR placement through assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.

SPORT 395  Track and Field, Intercollegiate-Women  2 Units
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course is an intercollegiate sport providing opportunities in women's track and field. It provides instruction in track and field fundamentals and skills, including rules and both individual and team strategies appropriate for intercollegiate athletic competition. This course may be taken three times for credit.

SPORT 405  Volleyball, Intercollegiate-Women  2 Units
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course is an intercollegiate sport providing opportunity for competition in women's volleyball. This course provides volleyball fundamentals and skills. It also includes rules, individual and team strategies appropriate for intercollegiate athletic competition. This course may be taken three times for credit.

SPORT 410  Water Polo, Intercollegiate-Men  2 Units
Advisory: ENGRD 116, ENGWR 102, ENGWR 103, ESLR 320, and ESLW 320; or placement through the assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: Tryout
Course Transferable to UC/CSU
Hours: 180 hours LAB
This course is an intercollegiate sport providing opportunity for competition in men's water polo. This course provides water polo fundamentals and skills and includes rules, individual and team strategy appropriate for intercollegiate athletic competition. This course may be taken 3 times for credit.
**SPORT 415  Water Polo, Intercollegiate-Women**  
2 Units  
Advisory: ENGW 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.  
General Education: AA/AS Area III(a); CSU Area E2  
Enrollment Limitation: Tryout  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.

### Team Activities

**TMACT 300  Soccer, Indoor**  
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 provide a greater awareness and understanding of indoor soccer by teaching the skills, strategy, and rules that govern the play of indoor soccer.

**TMACT 302  Soccer - Outdoor**  
1 Unit  
Advisory: ENGW 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.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
The beginning course is designed to give students a greater awareness and understanding of soccer by teaching the skills and strategy of soccer and rules that govern the play of soccer. The advanced course is designed to provide a greater awareness of soccer by teaching advanced skills, strategy, and rules that govern the play of soccer.

**TMACT 310  Baseball**  
1 Unit  
Advisory: ENGW 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.  
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 advanced baseball.

**TMACT 320  Basketball**  
1 Unit  
Advisory: ENGW 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.  
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 advanced basketball.

**TMACT 330  Volleyball**  
1 Unit  
Advisory: ENGW 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.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
The beginning course is designed to develop basic volleyball skills through lecture, demonstration, drills, and practice games. Students will gain a better understanding of and appreciation for volleyball and will be provided with opportunities for skill development. The intermediate course is designed to develop intermediate skills. Lecture and demonstration will provide the knowledge to continue this activity at a higher skill level. The advanced course is designed to develop advanced skills in those students who have already participated at the elementary level. Lecture and demonstration will provide the knowledge to continue this activity at a higher skill level.

**TMACT 340  Football**  
1 Unit  
Advisory: ENGW 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.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course emphasizes instruction in advanced techniques of offensive and defensive football skills.

**TMACT 350  Softball, Fast Pitch**  
1 Unit  
Advisory: High school varsity or college level softball; ENGW 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.  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
Slow pitch softball is a physical education course designed to teach the basic softball skills of throwing, catching, pitching, and hitting. Rules and strategies are also covered, including position play and baserunning. This course may be taken four times for credit.

**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  
A class for students interested in increasing their own sports/physical fitness skills and in promoting particular sports/physical fitness activities among other students. This course is intended to provide recreational, competitive and instructional opportunities other than on-going programs. Grading is on a credit/no credit basis.

**TMACT 365  Intramural Sports/Campus Recreation**  
1 Unit  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
A class for students interested in increasing their own sports/physical fitness skills and in promoting particular sports/physical fitness activities among other students.

### Physical Education Theory

**PET 302  Introduction to Physical Education**  
2 Units  
Advisory: ENGW 102 or ENGW 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC  
This course includes opportunities and responsibilities associated with physical education leadership. Theory, history and principles of physical education will be covered.

**PET 307  Mental Skills for Sports Performance**  
3 Units  
Advisory: ENGW 102 or ENGW 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 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.

PET 312 Theory and Techniques of Adapted Physical Education 3 Units
Corequisite: PET 313.
Advisory: ENGWR 102 or ENGRD 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to CSU
Hours: 54 hours LEC
This course provides students with an orientation to specific disabilities and important principles of physical activity for individuals with disabilities. Basic knowledge of movement related terminology, exercise principles and concepts, transfer techniques, and characteristics of specific disabilities as they relate to exercise will be covered. This class is invaluable for students interested in pursuing a career in physical therapy, nursing, adapted physical education, physical education, or fields requiring one to work with individuals with disabilities.

PET 313 Laboratory in Adapted Physical Education 1-2 Units
Advisory: ENGWR 102 or ENGRD 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to CSU
Hours: 108 hours LAB
This course offers practical experience in the implementation of physical activity for students with disabilities. This course may be taken three times for credit.

PET 330 Care and Prevention of Athletic Injuries 3 Units
Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; or placement through assessment process.
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.

PET 334 Practical Applications in Athletic Training/ Sports Medicine 3 Units
Corequisite: PET 330.
Advisory: BIOL 430, ENGWR 102 or ENGRD 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: 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.

PET 336 Health Concerns in Athletics 1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course provides basic information on a variety of athletic issues ranging from the prevention and treatment of athletic injuries and illnesses to the use of performance enhancement supplements. Topics reflect concerns for athletic performance in competitive sports and wellness.

PET 337 Common Injuries in Athletics 1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course provides basic information on common athletic injuries ranging from muscle strains and tendinitis to ligament sprains and overuse injuries. Topics reflect contemporary concerns for athletic performance in competitive sport and wellness.

PET 340 Theory of Baseball 1 Unit
Advisory: High school or college level baseball playing experience; ENGWR 102 or ENGRD 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course develops a thorough understanding of baseball. 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. May be taken twice for credit.

PET 344 Theory of Basketball 1 Unit
Advisory: ENGWR 102 or ENGRD 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course develops a thorough understanding of basketball. Emphasis is on lecture, demonstrations, and videos of basic fundamental basketball skills, team strategy, offensive and defensive strategies, conditioning drills, and a variety of philosophical methods of how the game is played. May be taken twice.

PET 350 Theory of Football 1 Unit
Advisory: ENGWR 102 or ENGRD 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course covers current problems and new trends in football with emphasis on basic fundamentals, team defense and offense. May be taken twice.

PET 356 Theory of Softball 1 Unit
Advisory: ENGWR 102 or ENGRD 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course develops a thorough understanding of softball. The emphasis is on lecture and demonstration of basic fundamental softball skills, team strategy, offensive and defensive strategy, conditioning drills, and a variety of philosophical methods of how the game is played. May be taken twice.

PET 362 Theory of Swimming 1 Unit
Advisory: ENGWR 102 or ENGRD 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to UC/CSU
Hours: 18 hours LEC
The course covers all aspects of competitive swimming, including the scientific principles of stroke biomechanics, physiology and psychology of training, workout design, and meet management. Includes a review of current regulations of the National Collegiate Athletic Association and the Commission on Athletics. May be taken twice.

PET 366 Theory of Tennis, Tactics and Strategy 2 Units
Advisory: ENGWR 102 or ENGRD 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to UC/CSU
Hours: 36 hours LEC
This course covers instruction in strategy and tactics with emphasis on percentage tennis, theory of angles, and play on different surfaces. Instruction in better stroking through appropriate shot selection and the physics of stroking. May be taken twice.
PET 368  Theory of Track & Field  1 Unit
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course covers each track and field event and will emphasize the techniques and training methods essential to successful performance. Collegiate track and field rules and procedures for conducting a meet are discussed. May be taken twice.

PET 372  Theory of Volleyball  1 Unit
Prerequisite: Completion of a college level volleyball course with a grade of "C" or better, or concurrent enrollment in Intermediate or Advanced Volleyball.
Corequisite: TMACT 330 - Volleyball.
Advisory: ENGWR 102 or ENGWR 103, and ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course develops a thorough understanding of the many aspects of the game including training/conditioning, individual techniques, offense strategy/systems, and defense strategy/systems. Particular emphasis is on the importance of individual proficiency and team tactics. May be taken twice for credit.

PET 400  Applied Physiology of Exercise  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course is part of the Fitness Specialist Certificate Program and examines how the body functions under conditions of exercise stress. It covers the practical applications of muscle function, cardiorespiratory functions, training techniques, and the effect of environmental conditions on exercise.

PET 401  Applied Kinesiology  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course, a part of the Fitness Specialist Certificate Program, will discuss movement as it relates to exercise. It will include analysis of movements in sport skills, stressing the contributions made by the muscular and skeletal systems.

PET 402  Nutrition for Fitness  2 Units
Same As: NUTRI 307
Course Transferable to CSU
Hours: 36 hours LEC
This course is part of the Fitness Specialist Certificate Program. Basic principles of nutrition are studied and the ramifications of nutrition on fitness training. Not open to students who have completed NUTRI 307.

PET 403  Fitness and Exercise Assessment  1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course is part of the Fitness Specialist Certificate Program. It covers the assessment of cardiorespiratory endurance, body fat, muscular strength and endurance, blood pressure, and the evaluation of the results of such tests.

PET 404  Identification and Management of Fitness Injuries  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course is part of the Fitness Specialist Certificate Program. This course addresses elementary human anatomy and its relationship to physical activity. Athletic training methods and protective equipment are covered. Treatment and rehabilitation of injuries as they relate to fitness training will be presented.

PET 405  Special Populations  1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
This course for the Fitness Specialist Certificate Program will cover the effects of exercise on special populations and to modify exercise based on age and medical conditions. Special groups discussed will include seniors; children; the physically impaired, and individuals with coronary heart disease, diabetes, asthma, obesity, low back pain, arthritis, or pregnancy.

PET 406  Techniques of Instruction - Strength Training  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course, part of the Fitness Specialist Certificate Program, is designed to provide a thorough review of strength training. The course studies anatomy and physiology as they apply to strength training, training sequences, available equipment, and safety factors. Included in this course is the development of strength training routines.

PET 407  Techniques of Instruction - Aerobics and Group Fitness  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course is part of the Fitness Specialist Certificate Program and covers teaching a variety of fitness activities to groups of individuals. Emphasis will be on how to design a physiologically safe and effective aerobic exercise class.

PET 408  Administration of Fitness Programs  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course is part of the Fitness Specialist Certificate Program. It serves as an introduction to the administration of fitness programs including business operations, office procedures, and facility and equipment considerations.

PET 494  Topics in Physical Education Theory  .5-4 Units
Advisory: ENGWR 102 or ENGWR 103, ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.
Course Transferable to CSU
Hours: 72 hours LEC
This umbrella course provides concentrated study of a variety of current fitness issues. Topics will reflect contemporary concerns for physical fitness, performance in competitive sport, and wellness. May be taken up to 3 units of credit.

PET 497  Internship in Physical Education - Theory  1.5 Units
Prerequisite: A grade of "C" or better in at least 8 units from the following courses: PET 400, 401, 402 (or NUTRI 307), 403, 404, 405, 406, 407, 408.
Course Transferable to CSU
Hours: 9 hours LEC; 54 hours LAB
This course is designed to provide students in the Fitness Specialist Certificate Program with practical experience in screening, performing fitness assessment tests, and formulating an exercise prescription based on fitness test indicators. In addition to the lecture schedule, there will be additional practicum hours to be arranged at local fitness centers and health clubs.
**Physical Science/Mathematics Degree**

This program provides a broad study in fields of physical science and mathematics. It provides a good foundation for transfer to a four-year program in science.

**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 Major**

Listed below are the courses required to complete the Physical Science/Mathematics Associate in Science (A.S.) Degree.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Prerequisites</th>
<th>General Education</th>
<th>Course Transferable to</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3</td>
<td>Math 100</td>
<td>AA/AS Area IV;</td>
<td>UC/CSU</td>
<td>54 LEC</td>
</tr>
<tr>
<td>PHYS 311</td>
<td>Basic Physics</td>
<td>3</td>
<td>Math 330</td>
<td>AA/AS Area IV;</td>
<td>UC/CSU</td>
<td>54 LEC</td>
</tr>
<tr>
<td>PHYS 312</td>
<td>Conceptual Physics Laboratory</td>
<td>1</td>
<td>Phys 310</td>
<td>AA/AS Area IV;</td>
<td>UC/CSU</td>
<td>54 LAB</td>
</tr>
<tr>
<td>PHYS 350</td>
<td>General Physics</td>
<td>4</td>
<td>Math 330</td>
<td>AA/AS Area IV;</td>
<td>UC/CSU</td>
<td>54 LEC/54 LAB</td>
</tr>
<tr>
<td>PHYS 360</td>
<td>General Physics</td>
<td>4</td>
<td>Phys 350</td>
<td>AA/AS Area IV;</td>
<td>UC/CSU</td>
<td>54 LEC/54 LAB</td>
</tr>
</tbody>
</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.

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**Physical Science**

**PS 300 Introduction to Physical Science**

- **3 Units**
- Advisory: Math 32
- General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
- Course Transferable to UC/CSU
- Hours: 54 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
- General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
- Course Transferable to UC/CSU
- Hours: 54 LAB

This laboratory course provides hands-on experiments in several disciplines in the physical sciences. Study of geologic, weather and topographic maps, star charts and use of tools, equipment and methods of science are also covered.
PHYS 410  Mechanics of Solids and Fluids       5 Units
Prerequisite: MATH 400 with a grade of “C” or better
Corequisite: MATH 401
Advisory: PHYS 311
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3;
IGETC Area 5A
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
This course covers mechanics of particles, rigid bodies and fluids.
The PHYS 410, 421, 431 sequence is required for majors in physics,
chemistry or engineering. The course includes lecture, laboratory
and problem discussion sections.

PHYS 421  Electricity and Magnetism       4 Units
Prerequisite: PHYS 410 with a grade of “C” or better.
Advisory: MATH 402
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers an in-depth treatment of electricity and magne-
tism. It involves problem solving with an emphasis on physics prob-
lems that require integral calculus. (CAN PHYS 12); (PHYS SEQ
B).

PHYS 431  Heat, Waves, Light and Modern Physics       4 Units
Prerequisite: PHYS 410 with a grade of “C” or better
Advisory: MATH 402
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course explores the fundamental theories of thermodynamics,
waves, optics, and modern physics: heat, temperature, kinetic theory,
waves, sound, light reflection and refraction, optics, interference, dif-
fracton, atomic theory and nuclear physics.
International Studies Certificate

The International Studies Certificate is designed to benefit students who are interested in international issues. Course work focuses on issues ranging from economy and trade to culture, politics, and environment from a transnational perspective.

Requirements for Certificate 29 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>or HIST 308</td>
<td>History of World Civilizations, 1500 to Present</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>
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</table>

And a minimum of 8 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ARTH 322</td>
<td>Art History of the Non-Western World</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>ENGL 340</td>
<td>World Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 341</td>
<td>World Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 345</td>
<td>Mythologies of the World</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 310</td>
<td>Human Geography: Exploring Earth’s Cultural Landscapes</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 320</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIST 300</td>
<td>History of Western Civilization</td>
<td>3</td>
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<tr>
<td>HIST 302</td>
<td>History of Western Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 305</td>
<td>Women in Western Civilization</td>
<td>3</td>
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<tr>
<td>HIST 307</td>
<td>History of World Civilizations to 1500</td>
<td>3</td>
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<tr>
<td>HIST 308</td>
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<td>3</td>
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<tr>
<td>HIST 364</td>
<td>Asian Civilization</td>
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<tr>
<td>HIST 365</td>
<td>Asian Civilization</td>
<td>3</td>
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<tr>
<td>HIST 373</td>
<td>History of Mexico</td>
<td>3</td>
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<tr>
<td>HIST 480</td>
<td>History of Western Civilization - Honors</td>
<td>3</td>
</tr>
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<td>HIST 481</td>
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<tr>
<td>HUM 300</td>
<td>Classical Humanities</td>
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<tr>
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<td>Modern Humanities</td>
<td>3</td>
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<tr>
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<td>Asian Humanities</td>
<td>3</td>
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<tr>
<td>HUM 330</td>
<td>Humanities of the Americas</td>
<td>3</td>
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<tr>
<td>MUFHL 330</td>
<td>World Music</td>
<td>3</td>
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<tr>
<td>PHIL 253</td>
<td>Religions of the Far East</td>
<td>3</td>
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<tr>
<td>PHIL 254</td>
<td>Religions of the West</td>
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<td>SOC 300</td>
<td>Introductory Sociology</td>
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<tr>
<td>SOCS 310</td>
<td>International Studies - Peace and Conflict Studies</td>
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<td>SOCS 312</td>
<td>International Studies - Current International Development Issues</td>
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<td>3</td>
</tr>
</tbody>
</table>

1The history course used to meet this requirement may not be used towards the 9 unit elective requirement.

POLS 301 Introduction to Government: United States 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; OR placement through assessment process.

General Education: AAAS Area V(a); CSU Area D8; CSU Area F2; 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.

POLS 302 Introduction to Government: Foreign 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; OR placement through assessment process.

General Education: AAAS Area V(b); CSU Area D8; IGETC Area 4H

Course Transferable to UC/CSU

Hours: 54 hours LEC

This course comparatively examines the political systems of selected Western European, Eastern European, Asian, Middle Eastern, African, and Latin American countries. Emphasis is on the formation of political institutions, political culture, citizen and interest participation, political parties, and bureaucratic public policy roles.

POLS 304 Introduction to Government: California 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: 54 hours LEC

This course covers the essential organization, institutions and processes of California state and local government. It fulfills the California State University requirement for state and local government, but not the requirement for the U.S. Constitution.

POLS 310 Introduction to International Relations 3 Units

Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.

General Education: AAAS 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 international political system. The focus will be on global issues as they relate to the nation-state system, the role of non-state actors, Global North and Global South relations, globalization, the proliferation of weapons of mass destruction, armed conflict and its causes, regional and hemispheric relations, and international political economy.
**POLS 320  Introduction to Political Theory  3 Units**  
Advisory: ENGRD 116, ENGW 102, ENGW 103, ESLR 320, or ESLW 320; or placement through the assessment process.  
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 covered may include theories of just and unjust societies, social contract theory, justifications for government authority, and the rights of citizens versus the responsibilities of citizenship.

**POLS 322  Political Ideologies  3 Units**  
Advisory: ENGW 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.  
General Education: AA/AS Area V(h); CSU Area D8; IGETC Area 4H  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is a survey of competing ideological approaches to government and politics. It provides comparative and historical analyses of various ideologies. Emphasis is on the theories, values, and assumptions that make up various political ideologies and their effects on political systems.

**POLS 330  Constitutional Rights  3 Units**  
Advisory: ENGW 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.  
General Education: AA/AS Area V(h); 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 332  Law and Society  3 Units**  
Same As: BUS 345  
Advisory: ENGW 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.  
General Education: AA/AS Area V(h); CSU Area D8; IGETC Area 4H  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is an introduction to the Anglo-American Common Law System with emphasis upon the nature and purpose of law. The evolution of legal concepts as a reflection of the social environment, and the basic organization and functioning of the American judicial system will be presented from a theoretical rather than a practical viewpoint through analysis of selected cases and reading materials. This course is not open to students who have completed BUS 345.

**POLS 494  Topics in Political Science  .5-4 Units**  
Advisory: ENGRD 116, ENGW 102, ENGW 103, ESLR 320, and ESLW 320; or placement through the assessment process; ENGW 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 provides the opportunity for concentrated study of specialized topics in Political Science. Each offering focuses on a discrete aspect of the Political Science discipline. Refer to class schedule for class topic. Individual field trips may be required. Course may be taken for a maximum of 9 units.
Psychology Degree

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.

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 18 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>PSYC 300</td>
<td>General Principles</td>
<td>3</td>
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<tr>
<td>PSYC 310</td>
<td>Biological Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 320</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 330</td>
<td>Introductory Statistics for the Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 335</td>
<td>Research Methods in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development</td>
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</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>
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<tr>
<td>HSER 330</td>
<td>Issues of Diverse Populations</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 365</td>
<td>Issues of Diverse Populations</td>
<td>3</td>
</tr>
<tr>
<td>HSER 340</td>
<td>Introduction to Chemical Dependency</td>
<td>3</td>
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<tr>
<td>or PSYC 400</td>
<td>Introduction to Chemical Dependency</td>
<td>3</td>
</tr>
<tr>
<td>HSER 342</td>
<td>Alcoholism: Intervention, Treatment &amp; Recovery</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 402</td>
<td>Alcoholism: Intervention, Treatment &amp; Recovery</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 305</td>
<td>Personal Growth and Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 340</td>
<td>Abnormal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 354</td>
<td>Marriage, The Family and Alternatives</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 356</td>
<td>Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 361</td>
<td>Psychology of Women in a Multicultural Society</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 370</td>
<td>Human Development: A Life Span</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 383</td>
<td>Introduction to Organizational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 390</td>
<td>Psychology of Death and Dying</td>
<td>3</td>
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</table>

Associate Degree Requirements: The Psychology 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.

Degree: A.A. - Psychology

PSYC 300 General Principles 3 Units

General Education: AAAS 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 others who desire a broad overview of general principles. Topics include the scientific method, statistics, biological determinants and general processes of behavior such as development, learning, verbal behavior, intelligence, perception, motivation, emotion, personality and mental health.

PSYC 305 Personal Growth and Adjustment 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; OR placement through assessment process.
General Education: AAAS Area V(b); CSU Area D9; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course explores human behavior emphasizing the practical and adjutative aspects of psychology in everyday life. Topics include development, personal growth and adjustment over the life span, motivation, emotions, stress, adjustment, behavior disorder, personality, attitudes, values, and interpersonal relationships.

PSYC 310 Biological Psychology 3 Units

Prerequisite: PSYC 300 with a grade of “C” or better
General Education: AAAS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is an analysis and description of the physiological determinants of behavior. Content includes the brain, the nervous system, central nervous pathologies, endocrine function and the biochemistry of mental disease. This is a basic course for psychology, medical and biological science majors.

PSYC 311 Biological Psychology Laboratory 1 Unit

General Education: AAAS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LAB

This is a study of the methods and techniques used to investigate sensation, perception, psychophysics, and biological psychology. Topics include: organization of the brain, anatomy, and physiology of the neuron, methods and an examination of sensory systems.

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 to influence individual behavior. Emphasized topics include aggression, prejudice, attraction, altruism, attitude change, conformity, gender roles, cultural norms, person perception, and social cognition.
PSYC 330  Introductory Statistics for the Behavioral Sciences  3 Units
Prerequisite: MATH 120 and PSYC 300 with grades of “C” or better
General Education: AA/AS 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 hypothesis testing, correlation, chi-square, and analysis of variance procedures.

PSYC 331  Introduction to Statistics for the Behavioral Science - Lab  1 Unit
Corequisite: PSYC 330.
Course Transferable to CSU
Hours: 54 hours LAB
This lab complements Introduction to Statistics for the Behavioral Sciences (PSYC 330) and/or Research Methods in Psychology (PSYC 335) by providing hands-on experience and facilitated instruction in the use of both the SPSS and Microsoft Excel computer software programs. Emphasis is on the techniques of software-assisted applied statistical analysis and data presentation using these software packages.

PSYC 335  Research Methods in Psychology  3 Units
Prerequisite: PSYC 300 with a grade of “C” or better
Corequisite: PSYC 330 or STAT 301
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the planning and execution of research studies in the behavioral sciences. Crucial topics include hypothesis formation, review of the professional literature, research design, collection of data, statistical analysis, and scientific report writing.

PSYC 340  Abnormal Behavior  3 Units
Prerequisite: PSYC 300 or 305 with a grade of “C” or better
Advisory: ENGW 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESR 320 and ESLW 320 with a grade of “C” or better; OR placement through 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 an exploration of 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.

PSYC 342  Behavior Modification: Theory and Application  3 Units
Prerequisite: PSYC 300 or 305 with a grade of “C” or better
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course reviews methods of changing behavior through the systematic application of learning principles. It examines the philosophical and research foundation of behavioral psychology as well as the controversy surrounding behavioralism. The emphasis is on practical applications including institutional settings, schools, child behavior management, smoking, alcohol abuse, sexual dysfunction, assertiveness and cognitive restructuring.

PSYC 354  Marriage, The Family and Alternatives  3 Units
Advisory: ENGW 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course is a study of marriage, the family and alternatives from historical, sociological and psychological viewpoints. Topics include the structure and functions of the family; childbearing, gender roles, mate selection, the sexual revolution, conflict, crisis, divorce, and alternatives to traditional marriage.

PSYC 356  Human Sexuality  3 Units
Advisory: ENGW 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area III(b); CSU Areas D4, D9, and E1; IGETC Area 4D and Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an overview of human sexual behavior from birth through adulthood. Sexuality is explored from historical, cultural, psychological, physiological, sociological and legal viewpoints.

PSYC 358  Principles of Interpersonal Relations  3 Units
Advisory: ENGW 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to the principles involved in effective interpersonal relationships. Topics will 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
Same As: HEED 352
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course examines productive and nonproductive stress and the influence of various types of stress on health and wellness. Topics include the physiological aspects of stress and its effects on health, assessments of personal coping style, strategies for coping effectively with stress, relaxation techniques, and positive reinforcers. Emphasis is placed on practical application of stress management techniques in daily life. This course is not open to students who have completed HEED 352.

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 D9
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a study of the psychological effects of society upon women. Emphasis is on the exploration of gender roles, sex roles, 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: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.  
General Education: AA/AAS Area V(b); AA/AAS 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 special population groups including the elderly, African Americans, Hispanics, Asians, Native Americans, homosexuals, the poor and terminally ill. It also includes the nature and extent of chemical dependency and other addictive behaviors. Not open to students who have completed HSER 330.

PSYC 370  Human Development: A Life Span  3 Units
Advisory: ENGL 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.  
General Education: AA/AAS Area V(b); AA/AAS Area III(b); CSU Area D9; CSU Area E1; IGETC Area 41  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course examines human development across the lifespan, from conception through death, by focusing on development from the perspectives of physiology, cognition, and psychology along with the interaction among these three domains. Emphasis is placed on development as an on-going process and practical application of course material. This course is designed as a foundation for careers in educational, social, psychological, and medical fields as well as providing a better understanding of one’s own developmental process.

PSYC 372  Child Development  3 Units
Same As: ECE 312  
Advisory: ENGL 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.  
General Education: AA/AAS Area V(b); CSU Area D9; CSU Area E1; IGETC Area 41  
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 environment. 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.

PSYC 374  Psychology of Aging: Adult Development and Aging  3 Units
Same As: GERON 302  
Advisory: ENGL 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.  
General Education: AA/AAS Area V(b); CSU Area E1  
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. Not open to students who have completed GERON 302.

PSYC 378  Communicating with and Validating Older Adults  3 Units
Same As: GERON 330  
Advisory: ENGL 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.  
General Education: AA/AAS 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. This class is held off campus in a long-term care setting. For internet modality, supervision by an activity professional in a long-term care setting is required. It is not open to students who have completed GERON 330.

PSYC 379  Reminiscence Therapy  3 Units
Same As: GERON 334  
Advisory: ENGL 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.  
General Education: AA/AAS 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. Off-campus supervision by an activity professional in long-term care setting is required for internet modality. It is not open to students who have completed GERON 334.

PSYC 383  Introduction to Organizational Psychology  3 Units
Advisory: PSYC 300, 330, and 335  
General Education: AA/AAS Area V(b); CSU Area D9  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course provides an overview of the field of organizational psychology, focusing on motivation, leadership, organizational assessment, personnel selection, training, and the application of psychological research techniques in the work environment.

PSYC 390  Psychology of Death and Dying  3 Units
Advisory: ENGL 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.  
General Education: AA/AAS Area III(b); CSU Area E1  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course involves an investigation of beliefs, attitudes, anxieties, and behaviors associated with dying and death. Included will be information relevant to suicide, life-threatening illnesses, bereavement, euthanasia, and various philosophical views on the phenomenon.

PSYC 400  Introduction to Chemical Dependency  3 Units
Same As: HSER 340  
Advisory: ENGL 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.  
General Education: AA/AAS Area III(b); CSU Area E1  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course is a survey that examines the physiological effects of chemical dependency on the individual. Included is an analysis of the effects of substance abuse on the family; the sociological, economic conditions contributing to substance abuse; and a description of community efforts at prevention and treatment. Not open to students who have completed HSER 340.
PSYC 401  Physiology and Pharmacology: Alcohol & Other Drugs  3 Units
Same As: HSER 341
Prerequisite: 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 in the body of alcohol and other psychoactive drugs, including opiates, stimulants, depressants, psychotherapeutics, and psychedelics. Also included are the social and psychological implication of tolerance, habituation, and substance abuse of the user and abuser. 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 of techniques used in the treatment of chemical dependency and an evaluation of intervention, individual and group counseling, detoxification, twelve step program, therapeutic communities, and aftercare programs. Not open to students who have completed HSER 342.

PSYC 480  Honors General Principles  3 Units
Prerequisite: Cumulative GPA of 3.0 or above; ENGRD 015 with “C” or better, or placement through 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, critical thinking and issues oriented introduction to general principles. Topics include the scientific method, statistics, biological determinants and general processes of behavior such as development, learning, verbal behavior, intelligence, perception, motivation, emotion, personality and mental health. Using a seminar style, the focus will be on encouraging thorough analysis and evaluation of psychological theories and research studies as they relate to practical, everyday issues.

PSYC 481  Honors Abnormal Behavior  3 Units
Prerequisite: Cumulative GPA of 3.0 or above; PSYC 300 or PSYC 480 with a grade of “C” or better; ENGW 300 OR ENGW 480 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 is for psychology majors, behavioral science majors, and others who desire a challenging, critical thinking, and issues-oriented exploration of normality and abnormality. Examination of the origins, symptoms and treatment of psychological disorders through first-person accounts, role of multicultural factors, and various theoretical stances. The focus is 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.
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), California Correctional Peace Officer Standards and Training (CPOST) and the California State Fire Marshal’s Office. Most courses presented at the SRPSTC are offered in an intensive, concentrated, short-term format.

Graduates from the basic core courses may be eligible for employment in county and city law enforcement agencies specializing in police, corrections and/or probation.

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, CPOST 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 visit our website at [www.arc.losrios.edu/safety](http://www.arc.losrios.edu/safety). 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, CPOST 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) 874-1098, or visit the webpage at [www.sacsheriff.com/divisions/dtrf/acadinfo.cfm](http://www.sacsheriff.com/divisions/dtrf/acadinfo.cfm).
- For information regarding in-service training course, contact the Sheriff’s Department, Division of Training and Reserve Forces at (916) 874-1098 or visit the webpage at [www.sacsheriff.com/divisions/dtrf/inservice.cfm](http://www.sacsheriff.com/divisions/dtrf/inservice.cfm).
- For information regarding the PC 832 Modular Training, contact the Division of Training and Reserve Forces at (916) 875-0006, or visit the website: [www.sacsheriff.com/divisions/dtrf/pc832.cfm](http://www.sacsheriff.com/divisions/dtrf/pc832.cfm).

City of Sacramento

- For information on the Communications courses, call (916) 264-7248 or visit the Communications Training web page at [www.sacpd.org/Academy/CTO.htm](http://www.sacpd.org/Academy/CTO.htm).
- For information about Community Service Officer training at the Academy, call (916) 264-8264 or visit the CSO Training webpage at [www.sacpd.org/Academy/CSO.htm](http://www.sacpd.org/Academy/CSO.htm).
- For information the Basic Police Academy, call (916) 566-2418 or visit the Academy website at: [www.sacpd.org/Academy/default.htm](http://www.sacpd.org/Academy/default.htm).
- For information on Regional Community Policing Institute courses call (916) 264-0190 or visit the webpage at: [www.sacpd.org/RCPI/](http://www.sacpd.org/RCPI/).

USDA Forest Service

- For information on courses presented by USDA Forest Service, call (916) 643-2263.

Regional Fire and Rescue Training Authority (JPA)

- For information on courses presented by Regional Fire and Rescue Training Authority call (916) 566-4400.

Sacramento Metropolitan Fire District

- For information on courses presented by the Sacramento Metropolitan Fire District, call (916) 566-4400 or visit the district's training webpage at [www.cityofsacramento.org/fire/training.html](http://www.cityofsacramento.org/fire/training.html).

Sacramento City Fire Department

- For information on courses presented by the Sacramento Fire Department call (916) 264-5266 or visit the Division of Training webpage at: [www.cityofsacramento.org/fire/training.html](http://www.cityofsacramento.org/fire/training.html).
California Department of Forestry
• For information on courses presented by the California Department of Forestry, call (530) 647-5292 or e-mail: chris.anthony@fire.ca.gov.

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.

Elk Grove Fire District
• For information on courses presented by the Elk Grove Fire District, call (916) 478-8027.

Folsom Police Department
• For information on courses presented by the Folsom Police Department, call (916) 355-7298.

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.
Real Estate Degree

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.

Career Opportunities

Real estate salesperson; real estate broker; real estate appraiser; small business owner

Requirements for Degree 34-35 Units

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<td>or ACCT 301</td>
<td>Financial Accounting</td>
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<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
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<td>BUS 310</td>
<td>Business Communications</td>
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<td>or MGMT 360</td>
<td>Management Communication</td>
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<td>BUS 340</td>
<td>Business Law</td>
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<td>MKT 300</td>
<td>Principles of Marketing</td>
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<td>RE 300</td>
<td>California Real Estate Principles</td>
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<td>RE 310</td>
<td>Real Estate Practice</td>
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<td>RE 320</td>
<td>Real Estate Finance</td>
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<td>RE 330</td>
<td>Legal Aspects of Real Estate</td>
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<td>RE 342</td>
<td>Real Estate Appraisal</td>
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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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<td>CISC 300</td>
<td>Computer Familiarization</td>
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<td>CISC 305</td>
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<td>MKT 314</td>
<td>Advertising</td>
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<td>RE 360</td>
<td>Real Estate Economics</td>
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<tr>
<td>RE 390</td>
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And a minimum of 6 units from the following: 6

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<td>BUS 110</td>
<td>Business Economics</td>
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<tr>
<td>ECON 302</td>
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<td>RE 360</td>
<td>Real Estate Economics</td>
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</tr>
<tr>
<td>RE 390</td>
<td>Real Estate Investment Analysis</td>
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</tbody>
</table>

Note: The California Department of Real Estate gives the exams and issues the Real Estate Salesperson and Broker’s Licenses. Students should contact DRE at the start of this program to verify individual requirements.

Real Estate Certificate

This certificate introduces the basic concepts of the real estate career field. Topics include the principles of real estate, law, economics, finance, practice and appraisal.

Requirements for Certificate 24 Units

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<td>RE 310</td>
<td>Real Estate Practice</td>
<td>3</td>
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<tr>
<td>RE 320</td>
<td>Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RE 330</td>
<td>Legal Aspects of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 342</td>
<td>Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 6 units from the following: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
<td>4</td>
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<tr>
<td>BUS 110</td>
<td>Business Economics</td>
<td>3</td>
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<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>RE 360</td>
<td>Real Estate Economics</td>
<td>3</td>
</tr>
<tr>
<td>RE 390</td>
<td>Real Estate Investment Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

RE 141 Advanced Appraisal 3 Units

Prerequisite: RE 340 with a grade of “C” or better.

Advisory: MATH 100.

Hours: 54 hours LEC

This course covers the appraisal of real estate through the proper application of the sales comparison, depreciated cost, and income capitalization approaches to value; income-producing properties are used as examples throughout the course. The presentation of the subject matter is traditional and follows procedures recommended for use by the leading appraisal societies. Appraisal theory and current appraisal practice are introduced, discussed, and, where possible, illustrated with local examples.

RE 190 Real Property Management 3 Units

Advisory: ENGW 102 or ENGW 103 and ENGRD 116 or ESLR 320 and ESLW 320.

Hours: 54 hours LEC

In this class, the student will learn about the day-to-day operation and management of real property including: marketing procedures, leases, maintenance, accounting and economics, record-keeping, management forms, legal requirements, laws, human relations, employer responsibilities and management.

RE 200 Real Estate Organization and Office Administration 3 Units

Advisory: Real Estate license or 12 units of course work in real estate.

Hours: 54 hours LEC

This course is designed for real estate brokers or those about to become brokers. It covers the various types of real estate brokerage and the knowledge, motivation, and preparation necessary to organize and manage a brokerage office.
RE 300  California Real Estate Principles  3 Units
Advisory: ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320; BUS 105.
Course Transferable to CSU
Hours: 54 hours LEC
The fundamental real estate course covering the basic laws and principles of California real estate, giving understanding, background, and terminology necessary for advanced study in specialized courses. This course is required by the California Department of Real Estate prior to taking the real estate salesperson's examination.

RE 310  Real Estate Practice  3 Units
Advisory: RE 300; ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320; BUS 105.
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the day-to-day operations in real estate roles and brokerage, including listing, prospecting, advertising, financing, sales techniques, escrow and ethics. Basic laws and practices of California real estate, provide the students with understanding, background, and terminology necessary for advanced study in specialized courses. Applies toward the educational requirements for the broker's examination.

RE 320  Real Estate Finance  3 Units
Advisory: RE 300; ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320; BUS 105.
Course Transferable to CSU
Hours: 54 hours LEC
This course surveys real estate financing, including lending policies and problems in financing transactions in residential apartments, commercial and special purpose properties. Methods of financing properties are emphasized. This course 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; ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320; BUS 105.
Course Transferable to CSU
Hours: 54 hours LEC
This course surveys California real estate laws, including methods of ownership, estates, transfers, financing instruments, foreclosures, leasing, contracts, and agency. This course 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: 61 hours LEC
This course provides entry-level education in the real estate appraisal field. Concentrating on the appraisal of single-family residences, the course covers basic appraisal principles and procedures, and Uniform Standards of Professional Appraisal Practice (USPAP) pursuant to the federal Appraisal Qualification Board's (AQB) Real Property Appraiser Qualification Criteria (effective January 1, 2008). It meets the California Office of Real Estate Appraisers (OREA) requirements for Basic Education and the National Uniform Standards of Professional Appraisal Practice (USPAP). The course also applies toward Department of Real Estate's (DRE) educational requirements (3 semester units) for the broker's examination. Field trips may be required.

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 Department of Real Estate broker's examination.

RE 370  Introduction to Escrow Procedures  3 Units
Advisory: RE 300; ENGWR 102 or ENGWR 103 and ENGRD 116 or ESLR 320 and ESLW 320; BUS 105.
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the functions and responsibilities of the escrow holder, including actual preparation of escrow instructions and documents in a typical real estate transaction. It also includes audit, disbursement, the issuance of closing statements and analysis of title insurance policies.

RE 371  Advanced Escrow Procedures  3 Units
Prerequisite: RE 370 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC
This course covers unusual and difficult types of escrow. The student will learn how to evaluate possible solutions with emphasis on real estate loans, financing instruments, and exchanges.

RE 390  Real Estate Investment Analysis  3 Units
Advisory: RE 300 and 320.
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed for brokers, salespersons and investors. It involves property and financial analysis of a wide range of real estate investment offerings, their risks and associated yields. The course emphasizes planning and the specific objectives of the investor.
Recreation Management Degree

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.

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 a part of the exploding recreation and leisure services market.

Requirements for Degree 25-29 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 312</td>
<td>Child Development</td>
<td>3</td>
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<tr>
<td>or PSYC 372</td>
<td>Child Development</td>
<td>3</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>HEED 316</td>
<td>First Aid: Responding to Emergencies</td>
<td>2</td>
</tr>
<tr>
<td>PET 312</td>
<td>Theory and Techniques of Adapted Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PET 313</td>
<td>Laboratory in Adapted Physical Education</td>
<td>1-2</td>
</tr>
<tr>
<td>RECR 300</td>
<td>Introduction to Recreation and Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td>RECR 310</td>
<td>Outdoor Recreation</td>
<td>3</td>
</tr>
<tr>
<td>RECR 320</td>
<td>Recreation Activity Leadership</td>
<td>3</td>
</tr>
<tr>
<td>RECR 498</td>
<td>Work Experience in Recreation</td>
<td>1-4</td>
</tr>
<tr>
<td>SPEECH 301</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or SPEECH 331</td>
<td>Group Discussion</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.

RECR 300 Introduction to Recreation and Leisure Services 3 Units

Advisory: ENGWR 102, ENGRD 116 or ESLR 320, ESLW 320.
Course Transferable to CSU
Hours: 54 hours LEC
Overview of recreation, park and leisure services. A basic course describing and interpreting recreation as a form of community services. The nature, scope and significance of leisure and recreation as a social force in contemporary society. Emphasis placed on the role of the professional leader in organizing recreation programs and services, operations, facilities and resources. Field trips required. (CAN REC 2)

RECR 310 Outdoor Recreation 3 Units

Advisory: ENGWR 102, ENGRD 116 or ESLR 320, ESLW 320.
Course Transferable to CSU
Hours: 54 hours LEC
Orientation to job opportunities; trends, problems and issues in public and private outdoor recreation agencies. Philosophies and operating purposes of federal, state and local governmental outdoor recreation facilities. Field trips to outdoor recreation areas required.

RECR 320 Recreation Activity Leadership 3 Units

Advisory: ENGWR 102 or ENGWR 103, ENGRD 116 or ESLR 320, ESLW 320, or placement through assessment process.
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 will be placed on the role of the face-to-face leader in organizing recreational programs in a variety of settings. Required of all recreation majors. (CAN REC 4)

RECR 498 Work Experience in Recreation 1-4 Units

Advisory: ENGWR 102, ENGRD 116 or ESLR 320, ESLW 320.
General Education: AAAS Area III(b)
Course Transferable to CSU
Hours: 72 hours LEC
This course gives practical experience to students who are training for recreation leadership, by providing actual supervised work at various playgrounds and recreation facilities within the Sacramento area (teen centers, swimming pools, gymnasiums, school areas, etc.)
The ARC Respiratory Care Program

The program is accredited by the Commission on Accreditation of Allied Health Programs. Successful completion of the program qualifies the graduate to apply for the credentialing examinations offered through the State of California and the National Board for Respiratory Care. The student is responsible for providing laboratory coats, laboratory fees, malpractice insurance and transportation to off-campus facilities. There may be morning, afternoon or evening clinical experiences in a variety of clinical settings with limited notice.

NOTE: In accordance with Article 5 of the Respiratory Care Practice Act, a person convicted of any offense other than a minor traffic violation, may not qualify to be licensed as a Respiratory Care Practitioner. Questions regarding this matter must be directed to the Respiratory Care Board, Board of Medical Quality Assurance.

Respiratory Care Degree

This degree is designed to prepare licensed respiratory care practitioners. It focuses on the treatment and management of patients with conditions affecting the cardiopulmonary system. Courses include physical assessment, medical gas administration, pharmacology, neonatal/pediatric therapy, and specialized cardiopulmonary procedures.

NOTE: All degree major courses require a grade of “C” or better.

Career Opportunities

The outlook for respiratory care practitioners is expected to grow in the coming years due to the large increase in the elderly population, the impact of environmental problems that have contributed to breathing problems, and technological advances that are prolonging the lives of those suffering from heart attack, cancer and accidents, as well as premature babies. In addition, an increasing number of practitioners have branched out into alternate care settings such as nursing homes, physicians’ offices, home health agencies, specialized care hospitals, medical equipment supply companies, and patients’ homes.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

· Graduation from an accredited high school in the United States or successful completion of the General 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.
· BIOL 430 with a grade of “C” or better.
· MATH 100 or equivalent with a grade of “C” or better.
· Minimum cumulative college GPA of 2.0.
· A Curriculum Planning Summary Sheet dated within the semester the enrollment packet is submitted.

Enrollment Process

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

· Applications to the program may be obtained at the Health and Education Building, Room 770 or online at www.arclosrios.edu/edhealth/respcare.html, and are due in the Health and Education office no later that 4:00 p.m. the second Friday in October.
· Selection is based on a computerized random selection process from among the qualified applicants.
· Only students who meet the pre-enrollment requirements and follow the pre-enrollment procedures will be considered for the program.
· The student accepted into the Respiratory Care program is required to have a physical examination, inoculations, drug screen, background check, and malpractice insurance.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<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</td>
<td>4</td>
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<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
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<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
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<tr>
<td>CISC 300</td>
<td>Computer Familiarization</td>
<td>1</td>
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<tr>
<td>ENGWR 300</td>
<td>College Composition (3)</td>
<td>3</td>
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<tr>
<td>or ESLW 340</td>
<td>Advanced Composition (4)</td>
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<tr>
<td>MATH 100</td>
<td>Elementary Algebra</td>
<td>5</td>
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<tr>
<td>PSYC 300</td>
<td>General Principles</td>
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<tr>
<td>RC 110</td>
<td>Introduction to Health Care for the Respiratory Care Practitioner</td>
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<tr>
<td>RC 111</td>
<td>Applied Cardiopulmonary Physiology</td>
<td>3</td>
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<tr>
<td>RC 112</td>
<td>Patient Assessment - Introduction to Clinical Problem Solving</td>
<td>2</td>
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<tr>
<td>RC 113</td>
<td>Patient Assessment Techniques</td>
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<tr>
<td>RC 120</td>
<td>Pharmacology for Respiratory Care</td>
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<tr>
<td>RC 121</td>
<td>Cardiopulmonary Pathophysiology</td>
<td>3</td>
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<tr>
<td>RC 122</td>
<td>Theory and Techniques I - Fundamental Respiratory Care</td>
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<tr>
<td>RC 123</td>
<td>Fundamental Respiratory Care Techniques</td>
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<tr>
<td>RC 130</td>
<td>Theory II - Adult Critical Care Techniques/Special Procedures</td>
<td>3</td>
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<td>RC 131</td>
<td>Techniques II - Adult Critical Care Techniques/Special Procedures</td>
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<tr>
<td>RC 132</td>
<td>Clinical Application: Adult Critical Care Techniques'</td>
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<tr>
<td>RC 140</td>
<td>Theory III - Respiratory Care in Specialty Areas</td>
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<tr>
<td>RC 141</td>
<td>Techniques III - Neonatal/Pediatric and Cardiopulmonary...</td>
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<tr>
<td>RC 142</td>
<td>Clinical Application: Neonatal/Pediatric and Cardiopulmonary...</td>
<td>6</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.
RC 110  Introduction to Health Care for the Respiratory Care Practitioner 2 Units
Prerequisite: Acceptance into the Respiratory Care Program.
Corequisite: RC 111 and 112.
Hours: 36 hours LEC
The course describes the organizational context of the U.S. health care system as it relates to the role and function of respiratory care practitioners. It focuses on the skills of communication and human interaction within the context of the modern health care delivery system. It also presents the ethical, legal, interprofessional and economics aspects of health care. It also identifies health care related safety techniques including universal precautions and infection control. Critical thinking processes are presented as a basis for comprehension of course content.

RC 111  Applied Cardiopulmonary Physiology 3 Units
Prerequisite: Acceptance into the Respiratory Care Program.
Corequisite: RC 110, 112, BIOL 431.
Hours: 54 hours LEC
This course provides a foundation for the development of critical thinking skills necessary for the clinical practice of respiratory care. It gives a comprehensive overview of the cardiopulmonary system with emphasis on applied physiology expanding on the concepts introduced in anatomy and physiology, and provides in depth information on ventilation, gas transport and acid-base balance, including interpretation of data and the relationship of physiological principles to patient care.

RC 112  Patient Assessment - Introduction to Clinical Problem Solving 2 Units
Prerequisite: Acceptance into the Respiratory Care Program.
Corequisite: RC 110, 111, and 113.
Hours: 36 hours LEC
The course presents a clinically oriented guide to assessment of the patient’s cardiopulmonary system with emphasis on its application to respiratory care procedures. It also describes assessment procedures, equipment, and the interpretation of results arising from the gathered information.

RC 113  Patient Assessment Techniques 2 Units
Prerequisite: Acceptance into Respiratory Care program.
Corequisite: RC 110, 111, and 112.
Hours: 108 hours LAB
This course consists of laboratory introduction of skills and procedures as well as supervised clinical experience, with emphasis on the application of theories and techniques related to fundamental respiratory care procedures. It integrates the patient assessment procedures, manipulation, examination, plus assessment of equipment, with the evaluation, interpretation, and application of patient data in the clinical setting.

RC 120  Pharmacology for Respiratory Care 3 Units
Prerequisite: RC 110, 111, 112, and 113 with a grade of “C” or better.
Corequisite: RC 121, 122, 123.
Hours: 54 hours LEC
The 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. It also includes 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 121  Cardiopulmonary Pathophysiology 3 Units
Prerequisite: RC 110, 111, 112 with a grade of “C” or better.
Corequisite: RC 120 and 122.
Hours: 54 hours LEC
This course covers the manifestations of cardiopulmonary and related diseases encountered in respiratory care practice. It presents the causes for and general treatment, as well as respiratory care treatment of these diseases. It also includes the evaluation for possible diagnoses, treatment approaches and evaluation of patient response to treatment for possible modification.

RC 122  Theory and Techniques I - Fundamental Respiratory Care 3 Units
Prerequisite: RC 110, 111, 112, and 113 with a grade of “C” or better.
Corequisite: RC 120, 121, 123; and PHYS 310.
Hours: 54 hours LEC
This course presents the principles of medical gas delivery devices; humidity, aerosol and hyperinflation therapies and chest physiotherapy. It also presents the application, patient assessment, patient monitoring, and the evaluation of the efficacy of medical gas, humidity, aerosol and hyperinflation therapies and chest physiotherapy.

RC 123  Fundamental Respiratory Care Techniques 2 Units
Prerequisite: RC 110, 111, 112, and 113 with grade of “C” or better.
Corequisite: RC 120, 121, 122.
Hours: 108 hours LAB
This course consists of laboratory introduction of skills and procedures as well as supervised clinical experience, with emphasis on the application of theories and techniques related to fundamental respiratory care procedures. Focus is on the application of skills learned in previous respiratory care courses while developing new skills related to medical gas, humidity, aerosol medication administration, hyperinflation therapies and chest physiotherapy.

RC 130  Theory II - Adult Critical Care Techniques/ Special Procedures 3 Units
Prerequisite: RC 120, 121, 122 with a grade of “C” or better.
Corequisite: RC 131.
Hours: 54 hours LEC
This course presents the principles of airway management, mechanical ventilatory support of the adult, hemodynamic monitoring, metabolic assessment, hyperbaric oxygen therapy and the transport of the mechanically ventilated adult. It presents advanced cardiopulmonary life support techniques.

RC 131  Techniques II - Adult Critical Care Techniques/Special Procedures 1 Unit
Prerequisite: RC 120, 121, 122, and 123 with grades of “C” or better.
Corequisite: RC 130 and 132.
Hours: 54 hours LAB
This course provides in class laboratory practice in airway management, including intubation, suctioning and bronchoscopy to adult patients in critical care units. It further provides in class laboratory practice in non-invasive and invasive mechanical ventilatory support, including ventilator settings/adjustments, monitoring, adjusting ventilators to improve oxygenation and/or ventilation and discontinuance from ventilatory support on adult patients in critical care units.
**RC 132**  **Clinical Application: Adult Critical Care Techniques/Special Procedures**  **6 Units**  
Prerequisite: RC 120, 121, 122, and 123 with grades of “C” or better.  
Corequisite: RC 130 and 131.  
Enrollment Limitation: 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: 324 hours LAB  
This course provides clinical practice in the application of airway management, including intubation, suctioning and bronchoscopy to adult patients in critical care units. It further provides clinical practice in application of non-invasive and invasive mechanical ventilatory support, including ventilator settings/adjustments, monitoring, adjusting ventilators to improve oxygenation and/or ventilation and discontinuance from ventilatory support on adult patients in critical care units.

**RC 140**  **Theory III - Respiratory Care in Specialty Areas**  **3 Units**  
Prerequisite: RC 130, 131 with a grade of “C” or better; current certification of advanced cardiopulmonary life support.  
Corequisite: RC 141  
Hours: 54 hours LEC  
This course presents the principles of neonatal/pediatric respiratory care, including basic and advanced techniques as well as transport of mechanically ventilated newborns and children. It also presents the principles underlying cardiopulmonary rehabilitation, including patient assessment, stress testing, reconditioning techniques, psychosocial aspects specific to the home setting and long term ventilator care.

**RC 141**  **Techniques III - Neonatal/Pediatric and Cardiopulmonary Rehabilitation Techniques**  **1 Unit**  
Prerequisite: RC 130 and 131 with grades of “C” or better.  
Corequisite: RC 140 and 142.  
Hours: 54 hours LAB  
This course provides in class 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. It also provides practice in pulmonary rehabilitation techniques, cardiopulmonary stress testing, sleep studies and respiratory care techniques in the home setting.

**RC 142**  **Clinical Application: Neonatal/Pediatric and Cardiopulmonary Rehabilitation Techniques**  **6 Units**  
Prerequisite: RC 130, 131, and 132 with grades of “C” or better.  
Corequisite: RC 140 and 141.  
Enrollment Limitation: Meet the health requirements of the Los Rios Community College District for Allied Health programs and certification in Advanced Cardiac Life Support (ACLS).  
Hours: 324 hours LAB  
This course provides clinical practice in the application of 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. It further provides practice in the application of pulmonary rehabilitation techniques, cardiopulmonary stress testing, sleep studies and respiratory care techniques in the home setting. Field trips are required.
General Science Degree

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.

Requirements for Degree 18 Units
A minimum of 18 units from the following: ............................................. 18
Transfer level courses in addition to other graduation requirements. One laboratory course in a physical science and one laboratory course in a biological science must be included. Courses may be selected from anatomy, astronomy, bacteriology, biology, biotechnology, botany, chemistry, geology, physical anthropology, physical geography, physical science, physiology, physics, and zoology.

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: Business Degree and Certificate

The program in Sign Language Studies: Business provides an introductory overview of American Sign Language, the Deaf community in a cultural context and the psychosocial dynamics of people who want to pursue training in business management while working in the Deaf community.

Requirements for Degree or Certificate 40 Units

- HSER 300 Introduction to Human Services ..............................................3
- MGMT 372 Human Relations and Organizational Behavior .........................3
- MGMT 300 Introduction to Modern Management (3) ................................3
- or MGMT 362 Techniques of Management (3)
- MGMT 360 Management Communication ..............................................3
- PSYC 300 General Principles (3) ..............................................................3
- or PSYC 305 Personal Growth and Adjustment (3)
- SILA 305 American Sign Language 1 ..................................................4
- SILA 306 American Sign Language 2 ..................................................4
- SILA 315 American Sign Language 3 ..................................................4
- SILA 316 American Sign Language 4 ..................................................4
- SILA 330 Impact of Deafness .................................................................3
- SILA 332 Educating Deaf People ..............................................................3
- And a minimum of 3 units from the following: ......................................3
- SILA 498 Work Experience in Sign Language Studies (1 - 4)

Associate Degree Requirements: The Sign Language Studies: 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.

Sign Language Studies: Human Services Degree and Certificate

The program in Sign Language Studies: Human Services provides an introductory overview of American Sign Language, the Deaf community in a cultural context and the psychosocial dynamics of people working in the Deaf community. The certificate 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.

Requirements for Degree or Certificate 40 Units

- HSER 300 Introduction to Human Services ..............................................3
- PSYC 300 General Principles (3) ..............................................................3
- or PSYC 305 Personal Growth and Adjustment (3)
- PSYC 370 Human Development: A Life Span ......................................3
- SILA 305 American Sign Language 1 ..................................................4
- SILA 306 American Sign Language 2 ..................................................4
- SILA 315 American Sign Language 3 ..................................................4
- SILA 316 American Sign Language 4 ..................................................4
- SILA 330 Impact of Deafness .................................................................3
- SILA 332 Educating Deaf People ..............................................................3
- And a minimum of 3 units from the following: ......................................3
- SILA 498 Work Experience in Sign Language Studies (1 - 4)
- And a minimum of 6 units from the following: .....................................6

Degree: A.A. - Sign Language Studies: Business
- A.A. - Sign Language Studies: Human Services
- A.A. - Interpreter Preparation Program

Certificates: Sign Language Studies: Business
- Sign Language Studies: Human Services
- Sign Language Studies: Interpreter Training

ECE 312 Child Development (3)
or PSYC 372 Child Development (3)
ENGED 320 Service Learning: Tutoring Elementary Students in Reading (3)
HSER 330 Issues of Diverse Populations (3)
or PSYC 365 Issues of Diverse Populations (3)
PSYC 340 Abnormal Behavior (3)

Associate Degree Requirements: The Sign Language Studies: 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.

Interpreter Preparation Program Degree

The Sign Language Studies Interpreting program provides an integrated series of coursework in American Sign Language (ASL) and ASL/English interpretation to prepare students for entry-level positions. A foundation in ASL discourse and interpretation is established through theoretical models. The emphasis is on the practical application of these models and knowledge in the areas of human relations, language skills, interpreting skills, and professionalism. The general education requirements complete the sequence of coursework to attain the A.A. degree.

Requirements for Degree 50 Units

- SILA 305 Introduction to Educational Interpreting, K-12 (1)
- SILA 322 Introduction to Educational Interpreting, Post Secondary (1)
- SILA 334 Introduction to Medical Interpreting (1)
- SILA 336 Introduction to Performing Arts Interpreting (1)
- SILA 338 Introduction to Social Services and Employment Interpreting (1)
- SILA 339 Work Experience in Sign Language Studies (1 - 4)
- SILA 498 Work Experience in Sign Language Studies (1 - 4)
- And a minimum of 4 units from the following: ......................................4
- INTRP 314 Introduction to Multicultural Communication (0.5)
- INTRP 323 Interactive Interpreting (2)
- INTRP 330 Introduction to Educational Interpreting, K-12 (1)
- INTRP 332 Introduction to Educational Interpreting, Post Secondary (1)
- INTRP 334 Introduction to Medical Interpreting (1)
- INTRP 336 Introduction to Performing Arts Interpreting (1)
- INTRP 338 Introduction to Social Services and Employment Interpreting (1)
- INTRP 340 Introduction to Telephone, Television and Remote Relay Interpreting (0.5)
- INTRP 342 Introduction to Religious Interpreting (0.5)
**Sign Language Interpreting**

**INTRP 300 Ethics and Professional Standards of Interpreting** 3 Units

*Prerequisite: INTRP 303 with a grade of "C" or better
Course Transferable to CSU
Hours: 9 hours LEC

This course provides an exposure to ethical backgrounds and techniques for working with members of the deaf community.

**INTRP 307 English to ASL Interpreting** 3 Units

*Prerequisite: INTRP 303 with a grade of "C" or better
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 theoretical analysis of the interpreting process, application of academic and world knowledge, and an introduction to fundamental interpreting skills and practices 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 exposure to background in and techniques for working with members of the deaf blind community.

**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.

**INTRP 314 Introduction to Multicultural Communication .5 Units

*Prerequisite: SILA 316 with a grade of "C" or better
Advisory: INTRP 305
Course Transferable to CSU
Hours: 9 hours LEC

This course is an introduction to the field of multicultural communication. The focus will be on cultural and linguistic diversity, personal life experiences, and on enhancing racial and ethnic diversity in the interpreting profession.

**INTRP 320 Simultaneous Interpreting 4 Units

*Prerequisite: INTRP 305 and 307 with grades of "C" or better
Advisory: SILA 330 and 332
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 Lan-
guage (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, and incorporation of cultural considerations.

**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 sign to voice and voice to sign transliterating 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 is an introduction to interpreting in the educational setting with a focus on the elementary and secondary levels of education. Emphasis will be 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 with a grade 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 post secondary level of education. Emphasis will be on vocabulary development and enrichment specific to educational interpreting, resource development, team building, roles and responsibilities, and ethics.

**INTRP 334 Introduction to Medical Interpreting** 1 Unit
Prerequisite: INTRP 305 with a grade of "C" or better.
Course Transferable to CSU
Hours: 18 hours LEC
This course is an introduction to interpreting in the medical setting. Environmental considerations, vocabulary development, resource building, introductory knowledge, and ethics will be considered.

**INTRP 336 Introduction to Performing Arts Interpreting** 1 Unit
Prerequisite: INTRP 305 with a grade of "C" or better.
Course Transferable to CSU
Hours: 18 hours LEC
This course is an introduction to interpreting in the performing arts setting. Environmental considerations, vocabulary development, resource building, introductory knowledge, and ethics will be considered.

**INTRP 338 Introduction to Social Services and Employment Interpreting** 1 Unit
Prerequisite: INTRP 305 with a grade of "C" or better.
Course Transferable to CSU
Hours: 18 hours LEC
This course is an introduction to interpreting in the social services/employment setting. Environmental considerations, vocabulary development, resource building, introductory knowledge, and ethics will be considered.

**INTRP 340 Introduction to Telephone, Television and Remote Relay Interpreting** .5 Unit
Prerequisite: INTRP 305 with a grade of "C" or better.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an introduction to interpreting using the telephone, via television and video and remote relay interpreting. Environmental considerations, vocabulary development, resource building, introductory knowledge, and ethics will be considered.

**INTRP 342 Introduction to Religious Interpreting** .5 Unit
Prerequisite: INTRP 305 with a grade 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 will be considered.

**INTRP 344 Introduction to Working with a Certified Deaf Interpreter** .5 Unit
Prerequisite: INTRP 305 with a grade of "C" or better.
Course Transferable to CSU
Hours: 9 hours LEC
This course is an introduction to interpreting with a certified deaf interpreter (CDI). Definition of roles, resource building, introductory knowledge, team development, and ethics are considered.

**INTRP 346 Specialized Vocabulary: Math and Computers** .5 Unit
Prerequisite: SILA 316 with a grade of "C" or better.
Advisory: INTRP 305.
Course Transferable to CSU
Hours: 9 hours LEC
This course provides the opportunity to develop specialized discourse for use in future interpreting assignments. The focus of the class will include use of general resources in ASL and English and the development of vocabulary and resources related to mathematics and computers.

**INTRP 348 Specialized Vocabulary: Science & Geography** .5 Unit
Prerequisite: SILA 316 with grade of "C" or better.
Advisory: INTRP 305.
Course Transferable to CSU
Hours: 9 hours LEC
This course provides an opportunity to develop specialized discourse for use in future interpreting assignments. The focus of the class will include use of general resources in ASL and English and the development of vocabulary and resources related to scientific terms and locational signs.

**INTRP 349 Signing for Dependency Situations** .5 Unit
Prerequisite: INTRP 300 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. This course is offered credit/no credit only.

**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, and information processing.

**INTRP 356 Fieldwork in Interpretation** 2.5 Units
Prerequisite: INTRP 300 and 320 with grades of "C" or better
Course Transferable to CSU
Hours: 18 hours LEC, 81 hours LAB
This course provides an opportunity to apply classroom learning to real-world practice in interpreting. Students participate in approved on-campus and off-campus settings.
INTRP 498  Work Experience in Sign Language Studies - Interpreting  1-3 Units  
Prerequisite: SILA 330, 332, 498 with a grade of "C" or better.  
Corequisite: INTRP 325.  
General Education: AA/AS Area III(b)  
Course Transferable to CSU  
Hours: 9 hours LEC; 190 hours LAB  
This course involves supervised work experience and career guidance in agencies which provide interpreting services to deaf clients. Students will be required to perform interpreting services to receive credit toward the completion of the interpreting certificate program. Students gain third party interpreter/transliterating experiences under supervision of an interpreting mentor. May be taken four times for a maximum of 8 units.

Sign Language Studies

SILA 305  American Sign Language 1  4 Units  
Advisory: ENGRD 116 and ENGWR 103; or ESLR 320 and ESLW 320; or placement through assessment process.  
General Education: AA/AS Area I; IGETC Area 6  
Course Transferable to UC/CSU  
Hours: 72 hours LEC  
This is a beginning course in a series of four courses in the visual-gestural processes of American Sign Language (ASL). It provides instructional activities to become competent in communication with deaf people. The emphasis is on non-speech communication.

SILA 306  American Sign Language 2  4 Units  
Prerequisite: SILA 305 with a grade of "C" or better  
Advisory: ENGRD 116 and ENGWR 103; or ESLR 320 and ESLW 320; or placement through the assessment process.  
General Education: AA/AS Area I  
Course Transferable to UC/CSU  
Hours: 72 hours LEC  
This is the second in a series of four courses in American Sign Language. The emphasis is on nonverbal communication. Topics include grammatical features such as adjective descriptors, differentiation between cardinal/ordinal numbers, contrastive structure, temporal aspect markers and temporal sequencing.

SILA 315  American Sign Language 3  4 Units  
Prerequisite: SILA 306 with a grade of "C" or better  
Advisory: ENGRD 116 and ENGWR 103; or ESLR 320 and ESLW 320; or placement through the assessment process.  
General Education: AA/AS Area I  
Course Transferable to UC/CSU  
Hours: 72 hours LEC  
This course is the third in a series of four courses in American Sign Language. It emphasizes expressive and receptive 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 dialogues that involve asking, empathizing, negotiating and agreeing or disagreeing.

SILA 316  American Sign Language 4  4 Units  
Prerequisite: SILA 315 with a grade of "C" or better  
General Education: AA/AS Area I; CSU Area C  
Course Transferable to UC/CSU  
Hours: 72 hours LEC  
This course is the fourth in a series of 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.
SILA 344 ASL Numbers 1 .5 Units
Prerequisite: SILA 305 with a grade of “C” or better
Course Transferable to CSU
Hours: 9 hours LEC
This course provides hand-on experiences using American Sign Language (ASL) cardinal, ordinal, and unique numbers. This course is offered credit/no credit only.

SILA 346 Fingerspelling I .5 Units
Advisory: SILA 305.
Course Transferable to CSU
Hours: 9 hours LEC
This module provides hands-on experiences with fingerspelling. Credit/no credit only.

SILA 348 Fingerspelling II .5 Units
Prerequisite: SILA 346.
Course Transferable to CSU
Hours: 9 hours LEC
This module will expand upon the skills learned in Fingerspelling I and introduces a more sophisticated fingerspelling usage as used by members of the Deaf Community. Credit/no credit only.

SILA 350 Classifiers .5 Units
Corequisite: SILA 306, 315, or 316
Course Transferable to CSU
Hours: 9 hours LEC
This course provides extensive hands-on experience in American Sign Language (ASL) using basic and complex classifiers. This course is offered credit/no credit only.

SILA 352 Signing for Dependency Situations .5 Units
Advisory: SILA 306.
Course Transferable to CSU
Hours: 9 hours LEC
This module will provide information related to the signs used by the Deaf community related to alcohol, sex, and drug abuse. Credit/no credit only.

SILA 354 Life Situations .5 Units
Advisory: SILA 305
Course Transferable to CSU
Hours: 9 hours LEC
This course provides hands-on experiences in American Sign Language (ASL) that relate to common household chores, life milestones, and holiday seasons. This course is offered credit/no credit only.

SILA 356 Pronominals .5 Units
Advisory: SILA 305
Course Transferable to CSU
Hours: 9 hours LEC
This course focuses on advanced pronoun use with expressive and receptive skill through practice in American Sign Language (ASL). This course is offered credit/no credit only.

SILA 360 Non-Verbal Communication .5 Units
Advisory: SILA 305
Course Transferable to CSU
Hours: 9 hours LEC
This course provides an introduction to gesture and mime processes that are fundamental to American Sign Language (ASL). This course is offered credit/no credit only.

SILA 362 Introduction to the Interpreting Profession .5 Units
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. Credit/no credit only.

SILA 364 Political and Legal Signs .5 Units
Advisory: SILA 315
Course Transferable to CSU
Hours: 9 hours LEC
This course introduces signs related to advocacy efforts, the political/legislative process, and the legal system as it relates to the Deaf Community. This course is offered credit/no-credit only.

SILA 368 Signs for Sports .5 Units
Advisory: SILA 315
Course Transferable to CSU
Hours: 9 hours LEC
This course addresses signs related to sports, sporting events, and recreational activities enjoyed by members of the Deaf Community. This course is offered credit/no credit only.

SILA 370 Non-Manual Signals in ASL .5 Units
Advisory: SILA 305
Course Transferable to CSU
Hours: 9 hours LEC
This course illustrates the importance of non-manual signals in ASL. Topics include the role of non-manual signals as adverbs, as grammatical distinctions in certain clauses, and as linked with a specific sign. This course is offered credit/no credit only.

SILA 394 Topics in Sign Language Studies .5-3 Units
Prerequisite: SILA 305.
Course Transferable to CSU
Hours: 54 hours LEC
Each module is a study of a specific topic or a technique in the area of sign language or deafness. Credit/no credit only.

SILA 498 Work Experience in Sign Language Studies 1-3 Units
Prerequisite: SILA 305 with a grade of “C” or better.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 9 hours LEC; 190 hours LAB
This course is supervised practical experience working with deaf clients. Under supervision of an agency mentor, the student provides entry-level paraprofessional services based on their skill level and other applicable experiences such as tutoring, note taking, communication aide, peer counselor, office assistant, administrative aide, instructional aide services. May be taken four times for credit for a maximum of 8 units.
Social Science Degree

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.

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 335), 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.

International Studies Certificate

The International Studies Certificate is designed to benefit students who are interested in international issues. Course work focuses on issues ranging from economy and trade to culture, politics, and environment from a transnational perspective.

Requirements for Certificate 29 Units

ANTH 310 Cultural Anthropology .............................................. 3
HIST 307 History of World Civilizations to 1500 (3) .......... 3
or HIST 308 History of World Civilizations, 1500 to Present (3)
POL S 302 Introduction to International Relations ............... 3

And a minimum of 8 units from the following: ...................... 8
Transfer level foreign language courses (numbered 300-499).

And a minimum of 9 units from the following: ...................... 9
ANTH 330 Magic, Witchcraft, and Religion (3)
ARTH 322 Art History of the Non-Western World (3)
ECON 302 Principles of Macroeconomics (3)
ECON 304 Principles of Microeconomics (3)
ENGLT 340 World Literature (3)
ENGLT 341 World Literature (3)
ENGLT 345 Mythologies of the World (3)
GEOG 310 Human Geography: Exploring Earth's Cultural Landscapes (3)
GEOG 320 World Regional Geography (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 364 Asian Civilization (3)
HIST 365 Asian Civilization (3)
HIST 373 History of Mexico (3)
HIST 480 History of Western Civilization - Honors (3)
HIST 481 History of Western Civilization - Honors (3)

The history course used to meet this requirement may not be used towards the 9 unit elective requirement.

SOCSC 310 International Studies - Peace and Conflict Studies 3 Units

Advisory: ENGW 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.

General Education: AA/AS Area V(b); CSU Area D7; IGETC Area 4G
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course examines the political and socioeconomic causes of peace and conflict. It also includes an analysis of inter- and intra-state war, terrorism, ethnic conflict, gender issues and conflict, Just War Theory, post-conflict reconciliation and peace in international relations.

SOCSC 312 International Studies - Current International Development Issues 3 Units

Advisory: ENGW 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.

General Education: AA/AS Area V(b); CSU Area D7; IGETC Area 4G
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course deals with current socio-economic and political issues in developing countries. It presents alternative theories of development with a particular focus on the issues of globalization including political and social change.
Sociology is the study of human behavior in society focusing on the study of systems, and how individuals live, work, and interact within them.

**SOC 300 Introductory Sociology 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; OR placement through assessment process.
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J; TCSC SOC 110
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines society in terms of the interactions of groups and cultures. Involves a consideration of family, government, education, and religion as basic American institutions. Emphasis on scientific method of approach.

**SOC 301 Social Problems 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; OR placement through assessment process.
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J; TCSC SOC 120
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is a survey of social problems of present day American culture including a study of their causes and an evaluation of proposed solutions and methods of treatment. Attention is directed to unemployment, poverty, physical, and mental disease, delinquency, crime and related problems.

**SOC 315 Introduction to Corrections 3 Units**
Prerequisite: PSYC 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the development, function and administration of federal, state, county and city law enforcement institutions. Causes and impact of crime and delinquency upon society. Treatment programs at local, state and federal correctional institutions, adult and juvenile, including probation and parole. Lectures, field trips, interviews and report writing.

**SOC 320 Minorities in America 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; OR placement through assessment process.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D0; IGETC Area 4C; 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. The course 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. The topics include prejudice, discrimination, racism, racial and ethnic stratification, assimilation patterns among groups, demographic shifts, civil rights and other related topics.

**SOC 325 Chicano Culture 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; OR placement through 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 examines the individual Chicano(a) and their culture pattern within the United States; the acquisition of their culture, innovation, adaptation and direction of their cultural development.

**SOC 335 Sociology of Aging 3 Units**
Same As: GERON 300
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.
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, social class/cultural differences. Not open to students who have completed GERON 300.

**SOC 342 Women in American Culture 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; OR placement through assessment process.
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 is an examination of Native American, Anglo American, African American, Hispanic American, and Asian American women's roles in American society within a historical and cross-cultural perspective. The focus of this course is an analysis and discussion of gender relations in the home, family, the work place, and the treatment of women in the mass media and in the health care system.

**SOC 350 Sociology of Popular Culture 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 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.
295/495  Independent Studies in (Subject)  1-4 Units
College courses basic to the study
An Independent studies course involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses, pursuant to agreement among the college, faculty member, and student(s). Studies having to do with transfer programs are numbered 495, and studies related to two-year vocational programs are numbered 295. For more information see Instructional Program: Independent and Special Study in the front of the catalog.

299/499  Experimental Offering in (Subject)  1-4 Units
College courses basic to the study
An experimental offering scheduled to provide students with the opportunity to pursue studies of special interest which are not covered in established catalog courses. Specific studies are designated according to the subject field to be studied. Studies having to do with transfer programs are numbered 499, and studies related to two-year vocational programs are numbered 299.
Speech

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 team. Speech courses can help provide good communications skills so important in the workplace.

SPEECH 301 Public Speaking 3 Units
General Education: AA/AS Area II(b); CSU Area A1; IGETC Area 1C
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is a course in oral composition and delivery. It focuses on the organization of support materials, methods of securing interest, and the presentation of information and ideas in oral communication situations typically found in the business and social community. Video recording equipment may be used as an aid to the student's self-analysis and improvement.

SPEECH 302 Persuasive Speech 3 Units
Prerequisite: SPEECH 301 with a grade of "C" or better
General Education: CSU Area A3
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is detailed study emphasizing persuasive discourse through an understanding of basic communication principles. Emphasis will be placed on the use of proofs, language and logical thinking. Video taping equipment may be used as an aid to the student's self-analysis and improvement.

SPEECH 305 Oral Interpretation 3 Units
General Education: AA/AS Area I; CSU Area C
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is a course in analysis and oral performance of prose and poetry with a focus on the communication of the literature's intellectual, emotional, and aesthetic content. The course is designed to deepen appreciation of literary forms, structure, and values. This is not a course in reading improvement.

SPEECH 311 Argumentation and Debate 3 Units
General Education: CSU Area A3
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course focuses on the theory, methods and application of argumentation and debate. It considers the use evidence and appeals in the advocacy of dissenting propositions.

SPEECH 321 Interpersonal Communication 3 Units
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course focuses on personal communication transactions with emphasis on the acquisition of techniques and skills essential to self-actualization and to establishing authentic relationships. Through simulated communication experiences and structured exercises, the student may experiment with a variety of alternative communication behaviors.

SPEECH 322 Listening 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on the listener in communication. The student will learn about the variables in listening and will learn to listen for a variety of purposes, such as listening for helping others, listening for critical evaluation, listening for content, and listening for aesthetic pleasure. The student will work for competence in listening skills in both formal and professional settings.

SPEECH 325 Intercultural Communication 3 Units
General Education: AA/AS Area VI
Course Transferable to UC/CSU
Hours: 54 hours LEC
This class is an introduction to the challenges and rewards of intercultural communication in everyday situations. The course is designed to increase understanding of variations in communication patterns across cultures and prepare students for more effective communication. Emphasis is on both international culture variance and sub cultural group-based experiential background variance.

SPEECH 331 Group Discussion 3 Units
General Education: AA/AS Area II(b); CSU Area A1; IGETC Area 1C
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is designed to increase student's understanding of group communication and to prepare students to function more effectively in groups. It focuses on communication in task and social groups. The subject matter deals with communication concepts and behaviors in problem-solving, decision-making, leadership, group roles, norms and conformity. Several written group analyses and one major research paper are required in most sections.

SPEECH 361 The Communication Experience 3 Units
General Education: AA/AS Area II(b); CSU Area A1
Course Transferable to CSU
Hours: 54 hours LEC
This course provides students with 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, practical group experience, and speech making.

SPEECH 363 Introduction to Communication Theory 3 Units
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the symbolic process of human communication through the study of basic communication models, fundamental theory, and relevant research findings, including the intrapersonal, and sociocultural levels. Emphasis will be on achieving an understanding of the communication process, its component elements, and its significance in human affairs.
SPEECH 371  Voice and Diction  3 Units
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course focuses on the overall improvement of vocal quality. Emphasis is on drills involving breath control, resonance, pitch and inflection thereby developing confidence in speaking. The International Phonetic Alphabet will be studied. This course is not recommended for special therapy or as a second language speech course. (CAN DRAM 6)

SPEECH 373  Forensics Laboratory  2 Units
Course Transferable to CSU
Hours: 108 hours LAB
This course is a laboratory course giving practice in preparing for and participating in the Students Speaker’s Bureau and intercollegiate competition. This course may be taken four times for credit.
### Leadership Development Certificate

**Requirements for Certificate** 17 units

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<th>Course</th>
<th>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>SGVT 300</td>
<td>Introduction to Student Government</td>
<td>2</td>
</tr>
<tr>
<td>SGVT 310</td>
<td>Leadership Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>And a minimum of 9 units from the following:</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology</td>
<td>(3)</td>
</tr>
<tr>
<td>PHIL 310</td>
<td>Introduction to Ethics</td>
<td>(3)</td>
</tr>
<tr>
<td>or PHIL 320</td>
<td>Logic and Critical Reasoning</td>
<td>(3)</td>
</tr>
<tr>
<td>PSYC 300</td>
<td>General Principles</td>
<td>(3)</td>
</tr>
<tr>
<td>or PSYC 305</td>
<td>Personal Growth and Adjustment</td>
<td>(3)</td>
</tr>
<tr>
<td>SOC 301</td>
<td>Social Problems</td>
<td>(3)</td>
</tr>
<tr>
<td>or SOC 342</td>
<td>Women in American Culture</td>
<td>(3)</td>
</tr>
<tr>
<td>SPEECH 331</td>
<td>Group Discussion</td>
<td>(3)</td>
</tr>
<tr>
<td>or SPEECH 301</td>
<td>Public Speaking</td>
<td>(3)</td>
</tr>
<tr>
<td>or SPEECH 302</td>
<td>Persuasive Speech</td>
<td>(3)</td>
</tr>
</tbody>
</table>

- **SGVT 300** *Introduction to Student Government* 2 Units

  *Course Transferable to CSU*

  *Hours: 18 hours LEC, 54 hours LAB*

  This course is a study of the legal, educational and philosophical basis of student government. It is designed for students interested in or participating in student government. This course provides practical experience in student government, in the administration of student programs, and participation on faculty and administrative committees. May include field trips to other campuses, area conferences, and state conferences. May be taken three times for credit.

- **SGVT 310** *Leadership Development* 3 Units

  *Course Transferable to CSU*

  *Hours: 54 hours LEC*

  This course is designed to provide emerging and existing student leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates group exercises, films, and contemporary readings on leadership.
Theatre Arts: Acting Degree

The Acting 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.

Career Opportunities

Students with an Acting A.A. degree may go into directing, acting, teaching, and film/television.

Requirements for Degree

27 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 300</td>
<td>Introduction to the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I</td>
<td>3</td>
</tr>
<tr>
<td>or TA 480</td>
<td>Honors Theory and Techniques of Acting</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 356</td>
<td>Acting for the Camera I</td>
<td>3</td>
</tr>
<tr>
<td>or TA 357</td>
<td>Acting for the Camera - II</td>
<td>3</td>
</tr>
<tr>
<td>or TA 362</td>
<td>Styles of Acting: Classical</td>
<td>3</td>
</tr>
<tr>
<td>or TA 366</td>
<td>Styles of Acting: Modern</td>
<td>3</td>
</tr>
<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 424</td>
<td>Advanced Technical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction</td>
<td>3</td>
</tr>
<tr>
<td>TA 434</td>
<td>Vintage Costuming</td>
<td>2</td>
</tr>
<tr>
<td>TA 435</td>
<td>History and Theory of Costuming</td>
<td>3</td>
</tr>
<tr>
<td>TA 440</td>
<td>Arts Management</td>
<td>3</td>
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</table>

And a minimum of 2 units from the following: 2

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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<tbody>
<tr>
<td>TA 460</td>
<td>Rehearsal and Performance</td>
<td>3</td>
</tr>
<tr>
<td>TA 461</td>
<td>Rehearsal and Performance - Drama</td>
<td>3</td>
</tr>
<tr>
<td>TA 462</td>
<td>Rehearsal and Performance - Comedy</td>
<td>3</td>
</tr>
<tr>
<td>TA 463</td>
<td>Rehearsal and Performance - Classical</td>
<td>3</td>
</tr>
<tr>
<td>TA 464</td>
<td>Rehearsal and Performance - Children's Show</td>
<td>3</td>
</tr>
<tr>
<td>TA 465</td>
<td>Rehearsal and Performance - Musical</td>
<td>3</td>
</tr>
<tr>
<td>TA 475</td>
<td>Fundamentals of Repertory Production</td>
<td>1-6</td>
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</table>

And a minimum of 2 units from the following: 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 356</td>
<td>Acting for the Camera I</td>
<td>3</td>
</tr>
<tr>
<td>TA 357</td>
<td>Acting for the Camera - II</td>
<td>3</td>
</tr>
<tr>
<td>TA 362</td>
<td>Styles of Acting: Classical</td>
<td>3</td>
</tr>
<tr>
<td>TA 366</td>
<td>Styles of Acting: Modern</td>
<td>3</td>
</tr>
<tr>
<td>TA 375</td>
<td>Voice, Diction and Dialects</td>
<td>3</td>
</tr>
<tr>
<td>TA 376</td>
<td>Musical Theatre Techniques</td>
<td>3</td>
</tr>
<tr>
<td>TA 390</td>
<td>Directing and Play Production</td>
<td>3</td>
</tr>
<tr>
<td>TA 400</td>
<td>Creative Drama for Children</td>
<td>3</td>
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</table>

And a minimum of 4 units from the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II</td>
<td>3</td>
</tr>
<tr>
<td>TA 356</td>
<td>Acting for the Camera I</td>
<td>3</td>
</tr>
<tr>
<td>TA 357</td>
<td>Acting for the Camera - II</td>
<td>3</td>
</tr>
<tr>
<td>TA 360</td>
<td>Styles of Acting</td>
<td>3</td>
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<tr>
<td>TA 362</td>
<td>Styles of Acting: Classical</td>
<td>3</td>
</tr>
<tr>
<td>TA 366</td>
<td>Styles of Acting: Modern</td>
<td>3</td>
</tr>
<tr>
<td>TA 370</td>
<td>Theatre Movement</td>
<td>3</td>
</tr>
<tr>
<td>TA 375</td>
<td>Voice, Diction and Dialects</td>
<td>3</td>
</tr>
<tr>
<td>TA 377</td>
<td>Musical Theatre Techniques</td>
<td>3</td>
</tr>
<tr>
<td>TA 390</td>
<td>Directing and Play Production</td>
<td>3</td>
</tr>
<tr>
<td>TA 400</td>
<td>Creative Drama for Children</td>
<td>3</td>
</tr>
</tbody>
</table>

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 Degree

The Technical Theatre degree provides a broad overview of theatre with an emphasis on exploring the technical elements of theatre. Coursework includes stagecraft, lighting, costuming, makeup, sound and puppetry, together with opportunities for practical participation in productions. The program is designed to prepare students for work as technicians and crew, or to transfer to four-year colleges in preparation to be designers.

Career Opportunities

Students with a Technical Theatre A.A. may work in theatre, Students with a Technical Theatre A.A. may work in theatre, film, TV or entertainment venues as technicians or designers in the areas of scenery, lighting, sound, properties, costumes, makeup, or stage management.

Requirements for Degree

28 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 300</td>
<td>Introduction to the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I</td>
<td>3</td>
</tr>
<tr>
<td>or TA 480</td>
<td>Honors Theory and Techniques of Acting</td>
<td>3</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-up</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 2 units from the following: 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 460</td>
<td>Rehearsal and Performance</td>
<td>3</td>
</tr>
<tr>
<td>TA 461</td>
<td>Rehearsal and Performance - Drama</td>
<td>3</td>
</tr>
<tr>
<td>TA 462</td>
<td>Rehearsal and Performance - Comedy</td>
<td>3</td>
</tr>
<tr>
<td>TA 463</td>
<td>Rehearsal and Performance - Classical</td>
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<td>TA 464</td>
<td>Rehearsal and Performance - Children's Show</td>
<td>3</td>
</tr>
<tr>
<td>TA 465</td>
<td>Rehearsal and Performance - Musical</td>
<td>3</td>
</tr>
<tr>
<td>TA 475</td>
<td>Fundamentals of Repertory Production</td>
<td>1-6</td>
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And a minimum of 7 units from the following: 7

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<tr>
<th>Course</th>
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</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 424</td>
<td>Advanced Technical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction</td>
<td>3</td>
</tr>
<tr>
<td>FASHN 334</td>
<td>Vintage Costuming</td>
<td>2</td>
</tr>
<tr>
<td>TA 435</td>
<td>History and Theory of Costuming</td>
<td>3</td>
</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-up</td>
<td>2</td>
</tr>
<tr>
<td>TA 440</td>
<td>Arts Management</td>
<td>3</td>
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</table>

And a minimum of 4 units from the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II</td>
<td>3</td>
</tr>
<tr>
<td>TA 356</td>
<td>Acting for the Camera I</td>
<td>3</td>
</tr>
<tr>
<td>TA 357</td>
<td>Acting for the Camera - II</td>
<td>3</td>
</tr>
<tr>
<td>TA 360</td>
<td>Styles of Acting</td>
<td>3</td>
</tr>
<tr>
<td>TA 362</td>
<td>Styles of Acting: Classical</td>
<td>3</td>
</tr>
<tr>
<td>TA 366</td>
<td>Styles of Acting: Modern</td>
<td>3</td>
</tr>
<tr>
<td>TA 370</td>
<td>Theatre Movement</td>
<td>3</td>
</tr>
<tr>
<td>TA 375</td>
<td>Voice, Diction and Dialects</td>
<td>3</td>
</tr>
<tr>
<td>TA 377</td>
<td>Musical Theatre Techniques</td>
<td>3</td>
</tr>
<tr>
<td>TA 390</td>
<td>Directing and Play Production</td>
<td>3</td>
</tr>
<tr>
<td>TA 400</td>
<td>Creative Drama for Children</td>
<td>3</td>
</tr>
<tr>
<td>TA 406</td>
<td>Children's Theatre</td>
<td>3</td>
</tr>
</tbody>
</table>
And a minimum of 6 units from the following: ........................................... 6
Three TA courses not used to fulfill other requirements for the major

1Earned by enrollment for a minimum of 0.5 units in each of two productions for a total of 2 units.
2Selected from three or more distinct courses on the list.

Associate Degree Requirements: The Theatre Arts: Technical 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.

Acting Certificate
The Acting certificate provides training in the theories and techniques of acting. The training starts with the basic principles of acting and refines them through theoretical, rehearsal, and performance processes. The curriculum is designed to introduce and develop the craft of acting through transferable courses.

Career Opportunities
Students with an acting certificate may go into acting, directing, film, teaching, and many other careers where oration and presentation are key components.

Requirements for Certificate 16 Units
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II</td>
<td>3</td>
</tr>
<tr>
<td>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>
<tr>
<td>TA 437</td>
<td>Stage Make-up I</td>
<td>2</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following: 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA 356</td>
<td>Acting for the Camera I (3)</td>
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</tr>
<tr>
<td>TA 357</td>
<td>Acting for the Camera - 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>And a minimum of 3 units from the following: 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA 406</td>
<td>Children’s Theatre (3)</td>
<td></td>
</tr>
<tr>
<td>TA 460</td>
<td>Rehearsal and Performance (0.5 - 3)</td>
<td></td>
</tr>
<tr>
<td>TA 461</td>
<td>Rehearsal and Performance - Drama (0.5 - 3)</td>
<td></td>
</tr>
<tr>
<td>TA 462</td>
<td>Rehearsal and Performance - Comedy (0.5 - 3)</td>
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</tr>
<tr>
<td>TA 463</td>
<td>Rehearsal and Performance - Classical (0.5 - 3)</td>
<td></td>
</tr>
<tr>
<td>TA 464</td>
<td>Rehearsal and Performance - Children’s Show (0.5 - 3)</td>
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<tr>
<td>TA 465</td>
<td>Rehearsal and Performance - Musical (0.5 - 3)</td>
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<td>TA 466</td>
<td>Rehearsal and Performance - Musical Ensemble (0.5 - 3)</td>
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<tr>
<td>TA 475</td>
<td>Fundamentals of Repertory Production (1 - 6)</td>
<td></td>
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</tbody>
</table>

Children’s Theatre Certificate
The Children’s Theatre certificate provides the knowledge needed to create theatrical productions for children. Coursework includes acting, improvisation, voice, technical theatre, and theatre productions for children.

Career Opportunities
Students 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 13-17 Units
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 344</td>
<td>Improvisation and Theatre Games (2)</td>
<td>2 - 3</td>
</tr>
<tr>
<td>or TA 370</td>
<td>Theatre Movement (2)</td>
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<tr>
<td>or TA 375</td>
<td>Voice, Diction and Dialects</td>
<td></td>
</tr>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I</td>
<td>3</td>
</tr>
<tr>
<td>TA 400</td>
<td>Creative Drama for Children (3)</td>
<td>1 - 3</td>
</tr>
<tr>
<td>or TA 404</td>
<td>Techniques of Puppets</td>
<td></td>
</tr>
<tr>
<td>or ENGLT 372</td>
<td>Children and Literature: Storytelling (1)</td>
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</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft (3)</td>
<td></td>
</tr>
<tr>
<td>or TA 430</td>
<td>Costume Construction (3)</td>
<td></td>
</tr>
<tr>
<td>or TA 437</td>
<td>Stage Make-up I (2)</td>
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<td>And a minimum of 3 units from the following: 3</td>
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<td>TA 460</td>
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<tr>
<td>TA 475</td>
<td>Fundamentals of Repertory Production (1 - 6)</td>
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<tr>
<td>And a minimum of 2 units from the following: 2</td>
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<td></td>
</tr>
</tbody>
</table>
| Any TA course not used to fulfill other requirements

1Connected with Children’s Theatre Touring Performance.

Costuming Certificate
The Costuming certificate provides training in the skills needed to create theatrical costumes. Coursework includes costume construction, history of costume, patterning, and makeup.

Career Opportunities
The student with a costuming certificate may work creating and maintaining costumes for theatre, film, TV, advertising, and other entertainment fields.

Requirements for Certificate 17 Units
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASHN 342</td>
<td>Fashion Illustration (3)</td>
<td>3</td>
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<tr>
<td>or FASHN 374</td>
<td>Pattern Making and Design (3)</td>
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</tr>
<tr>
<td>TA 404</td>
<td>Techniques of Puppetry (3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 420</td>
<td>Stagecraft (3)</td>
<td></td>
</tr>
<tr>
<td>or FASHN 320</td>
<td>Textiles (3)</td>
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</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction (3)</td>
<td>3</td>
</tr>
<tr>
<td>TA 435</td>
<td>History and Theory of Costuming (3)</td>
<td>3</td>
</tr>
<tr>
<td>or FASHN 330</td>
<td>History of Western World Fashion (3)</td>
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</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-up I</td>
<td>2</td>
</tr>
<tr>
<td>And a minimum of 1 unit from the following: 1</td>
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<td></td>
</tr>
<tr>
<td>TA 460</td>
<td>Rehearsal and Performance (0.5 - 3)</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 1 unit from the following: 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FASHN 334</td>
<td>Vintage Costuming (0.5 - 2)</td>
<td></td>
</tr>
<tr>
<td>TA 434</td>
<td>Vintage Costuming (0.5 - 2)</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 1 unit from the following: 1</td>
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<td></td>
</tr>
<tr>
<td>TA 433</td>
<td>Costume Production (0.5 - 3)</td>
<td></td>
</tr>
<tr>
<td>TA 460</td>
<td>Rehearsal and Performance (0.5 - 3)</td>
<td></td>
</tr>
<tr>
<td>1TA 460 must include wardrobe crewing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2TA 460 must include costume construction.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Film Certificate
The Film certificate concentrates on the critical study of film as an art form and societal influence. Coursework includes history of film, film genres, diversity in film, acting for the camera and filmmaking.

Career Opportunities
Students may go into the field of film or TV as actors, directors, producers, critics, and technicians.

Requirements for Certificate 15 Units
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 310</td>
<td>Introduction to Film</td>
<td>3</td>
</tr>
<tr>
<td>TA 314</td>
<td>History of Film: 1880’s through 1950’s</td>
<td>3</td>
</tr>
<tr>
<td>TA 315</td>
<td>History of Film: 1950’s to Present</td>
<td>3</td>
</tr>
<tr>
<td>TA 318</td>
<td>Diversity in American Film</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following: 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 420</td>
<td>Film Making (2)</td>
<td></td>
</tr>
<tr>
<td>TA 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>
</tbody>
</table>
**Musical Theatre Certificate**

The Musical Theatre certificate synthesizes the performance skills of movement, acting, and singing with the musical theatre script/song. 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 through transferable courses.

**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.

<table>
<thead>
<tr>
<th>Requirements for Certificate</th>
<th>15 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 377 Theatre Dance</td>
<td>1 Unit</td>
</tr>
<tr>
<td>MUIVI 310 Voice Class</td>
<td>2 Units</td>
</tr>
<tr>
<td>TA 351 Theory and Techniques of Acting I</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 370 Theatre Movement</td>
<td>2 Units</td>
</tr>
<tr>
<td>TA 377 Musical Theatre Techniques</td>
<td>3 Units</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 450 Rehearsal and Performance - Musical (0.5 - 3)</td>
<td>1 Unit</td>
</tr>
<tr>
<td>And a minimum of 1 unit from the following:</td>
<td>1 Unit</td>
</tr>
<tr>
<td>DANCE 310 Jazz Dance</td>
<td>1 Unit</td>
</tr>
<tr>
<td>DANCE 320 Ballet</td>
<td>1 Unit</td>
</tr>
<tr>
<td>DANCE 360 Tap Dance</td>
<td>1 Unit</td>
</tr>
<tr>
<td>MUIVI 311 Voice Class</td>
<td>2 Units</td>
</tr>
<tr>
<td>MUIVI 320 Voice Class, Intermediate</td>
<td>2 Units</td>
</tr>
<tr>
<td>MUIVI 321 Voice Class, Intermediate</td>
<td>2 Units</td>
</tr>
<tr>
<td>MUIVI 390 Beginning Jazz and Popular Vocal Styles</td>
<td>2 Units</td>
</tr>
<tr>
<td>MUIVI 391 Advanced Jazz and Popular Vocal Styles</td>
<td>2 Units</td>
</tr>
<tr>
<td>TA 362 Styles of Acting: Classical</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 366 Styles of Acting: Modern</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 375 Voice, Diction and Dialects</td>
<td>3 Units</td>
</tr>
</tbody>
</table>

**Technical Theatre Certificate**

The Technical Theatre 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.

**Career Opportunities**

Students with a Technical Theatre certificate may become stagehands, set builders, lighting and sound technicians, makeup artists, properties artisans, or stage managers in theatre, film or TV.

<table>
<thead>
<tr>
<th>Requirements for Certificate</th>
<th>16 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 420 Stagecraft</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 422 Stage Lighting</td>
<td>3 Units</td>
</tr>
<tr>
<td>And a minimum of 2 units from the following:</td>
<td>2 Units</td>
</tr>
<tr>
<td>TA 460 Rehearsal and Performance (0.5 - 3)</td>
<td>1 Unit</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 424 Advanced Technical Theatre</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 460 Rehearsal and Performance (0.5 - 3)</td>
<td>1 Unit</td>
</tr>
<tr>
<td>TA 498 Work Experience in Theatre Arts (1 - 4)</td>
<td>1 Unit</td>
</tr>
<tr>
<td>And a minimum of 5 units from the following:</td>
<td>5 Units</td>
</tr>
<tr>
<td>MUSM 140 Concert Sound Reinforcement</td>
<td>2 Units</td>
</tr>
<tr>
<td>MUSM 342 Recording Studio Techniques</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 404 Techniques of Puppetry</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 430 Costume Construction</td>
<td>3 Units</td>
</tr>
<tr>
<td>TA 437 Stage Make-up I (2)</td>
<td>2 Units</td>
</tr>
<tr>
<td>WELD 300 Introduction to Welding</td>
<td>3 Units</td>
</tr>
</tbody>
</table>

\( ^1 \)TA 460 must be taken twice; crew for a minimum of two shows

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**TA 294 Topics in Theatre Arts**

<table>
<thead>
<tr>
<th></th>
<th>.5-4 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours:</td>
<td>54 hours LEC; 162 hours LAB</td>
</tr>
<tr>
<td>This course is designed to give students an opportunity to study topics in theatre which are not included in current course offerings. This course may be taken four times with no duplication of topics.</td>
<td></td>
</tr>
</tbody>
</table>

**TA 300 Introduction to the Theatre**

<table>
<thead>
<tr>
<th></th>
<th>3 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisory:</td>
<td>ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.</td>
</tr>
<tr>
<td>General Education:</td>
<td>AA/AS Area I; CSU Area C1; IGETC Area 3A</td>
</tr>
<tr>
<td>Course Transferable to UC/CSU</td>
<td></td>
</tr>
<tr>
<td>Hours:</td>
<td>54 hours LEC</td>
</tr>
<tr>
<td>This course surveys the literary, cultural and historical aspects of theatre arts. It is an audience oriented, non-performance theatre arts course open to all students. (CAN DRAM 18) AA/AS area B; CSU area C1; IGETC area 3</td>
<td></td>
</tr>
</tbody>
</table>

**TA 302 History and Theory of the Theatre I**

<table>
<thead>
<tr>
<th></th>
<th>3 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisory:</td>
<td>ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.</td>
</tr>
<tr>
<td>General Education:</td>
<td>AA/AS Area I; CSU Area C1; IGETC Area 3A</td>
</tr>
<tr>
<td>Course Transferable to UC/CSU</td>
<td></td>
</tr>
<tr>
<td>Hours:</td>
<td>54 hours LEC</td>
</tr>
<tr>
<td>This course is a survey of the history of theatre from the Greeks through the 17th century. The history and development of theatre and drama are studied in relationship to cultural, political and social conditions of the time. Plays are read for analysis of structure, plot, character and historical relevance. The course is recommended for students planning to major in theatre, humanities, English or speech.</td>
<td></td>
</tr>
</tbody>
</table>

**TA 303 History and Theory of the Theatre II**

<table>
<thead>
<tr>
<th></th>
<th>3 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisory:</td>
<td>ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.</td>
</tr>
<tr>
<td>General Education:</td>
<td>AA/AS Area I; CSU Area C1; IGETC Area 3A</td>
</tr>
<tr>
<td>Course Transferable to UC/CSU</td>
<td></td>
</tr>
<tr>
<td>Hours:</td>
<td>54 hours LEC</td>
</tr>
<tr>
<td>This course is a survey of the history of theatre from the 17th century through modern theatre. The history and development of theatre and drama are studied in relationship to cultural, political and social conditions of the time. Recommended for students planning to major in theatre, humanities, English or speech.</td>
<td></td>
</tr>
</tbody>
</table>

**TA 306 Diversity in American Drama (1960 to Present)**

<table>
<thead>
<tr>
<th></th>
<th>3 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisory:</td>
<td>ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; OR placement through assessment process.</td>
</tr>
<tr>
<td>General Education:</td>
<td>AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A</td>
</tr>
<tr>
<td>Course Transferable to UC/CSU</td>
<td></td>
</tr>
<tr>
<td>Hours:</td>
<td>54 hours LEC</td>
</tr>
<tr>
<td>This course surveys the theatrical (not the literary) expression of native-American, African-American, Latino, and Asian-American theatre from 1960 to the present, including the social, political, cultural, and economic climate in which the theatre was created, and other special interest group theatrical expression as appropriate.</td>
<td></td>
</tr>
</tbody>
</table>
TA 310 Introduction to Film 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; OR placement through assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the artistic, business, and social elements of modern film. It examines the elements that go into making films: acting, directing, cinematography, writing and editing. It investigates the techniques used to manipulate the audience into fear, laughter and sadness; and compares the commercial box office hit and “movie star” to enduring artistic films and actors. The class will view and analyze films to evaluate filmmaking techniques and the impact of films and the movie business on society.

TA 312 History of Film 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; OR placement through assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an historical and critical survey of film as an art form. It emphasizes the evolution of artistic and technical facets of production in features, documentary and experimental films.

TA 314 History of Film: 1880’s through 1950’s 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; OR placement through assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an historical and critical survey of film as an art form. It emphasizes the evolution of artistic and technical facets of production in features, documentary and experimental films.

TA 315 History of Film: 1950’s to Present 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; OR placement through assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an historical and critical survey of film as an art form. It emphasizes the evolution of artistic and technical facets of production in features, documentary and experimental films.

TA 318 Diversity in American Film 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; OR placement through assessment process.
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 under-represented in the main-stream media such as women, Native-Americans, African-Americans, Latinos, Asian-Americans and gays and lesbians. Media stereotypes and the social, political and cultural climate that created them will be covered through films, lecture and discussion.

TA 320 Cinema Genres 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; OR placement through assessment process.
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course studies one or more film topics or genres. It explores specific types of film in depth concentrating on historical and technical changes in that genre. It covers the style of directing, acting and design for that genre. It examines specific actors, directors, writers, cinematographers, producers, and/or studios who specialized in that area. This course may be taken four times for credit on different topics.

TA 344 Improvisation and Theatre Games 2 Units
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This class will include theatre games and improvisational exercises designed to develop trust and cooperation, mental acuity, and physical and vocal range as an actor. Improvisation technique will be built from the ground up, providing a strong foundation for advanced work in non-scripted performance and also in modern rehearsal technique that involves extensive use of improvisation.

TA 350 Theory and Techniques of Acting I 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; OR placement through assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the major theories and techniques of acting, including improvisation, physical expressiveness, voice production, character portrayal and scene work.

TA 351 Theory and Techniques of Acting - II 3 Units
Prerequisite: TA 350 or TA 480 Honors with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the application of acting theories and techniques to scripts of realistic drama, memorized scenes, various acting exercises and audition pieces—all of which are presented in the classroom. (CAN DRAM 22)

TA 356 Acting for the Camera - I 3 Units
Prerequisite: TA 350 or TA 480 Honors with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This is an introductory course in the theory and technique of acting for film and video, focusing on the differences between stage acting and acting for the camera. Scenes and commercials are enacted and played back on videotape for class critiquing.

TA 357 Acting for the Camera - II 3 Units
Prerequisite: TA 350 or TA 480 Honors with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course builds upon the principles learned in Acting for the Camera I, developing advanced skills of acting for film and television. Monologues, commercials and scenes are enacted and played back on video for class critiquing.
TA 360  Styles of Acting  3 Units  
Prerequisite: TA 350 or 480 with a grade of “C” or better.  
Advisory: TA 300 and 351.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
Investigation of styles of acting through lectures and prepared scenes  
from representative classic and modern plays and one-act plays.  

TA 362  Styles of Acting: Classical  3 Units  
Prerequisite: TA 350 or 480 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 Classic Theatre  
from the Greeks through Restoration. It will examine the actor’s  
approach to the text as well as the voice and movement needs of clas-  
sic styles. Styles include Greek, Commedia dell’ Arte, Shakespeare,  
Comedy of Manners, and Restoration.  

TA 366  Styles of Acting: Modern  3 Units  
Prerequisite: TA 350 or 480 with a grade of “C” or better.  
Advisory: TA 300, 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 will examine the actor’s approach to  
modern texts as well as the voice and movement needs of modern  
styles. Styles include Realism and Theatre of the Absurd.  

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 de-  
signed to provide opportunities in discovery and solving movement  
tasks of the actor. The course incorporates exercises to expand the  
individuals’ movement for characters and scenes, as well as training  
in specific movement areas, such as combat, period style, and dance.  
The course may be taken four times for credit.  

TA 375  Voice, Diction and Dialects  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;  
OR placement through assessment process.  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course focuses on the overall improvement of vocal quality, ex-  
plores monologue and dialog performances, and develops confidence  
in speaking and voice production. It emphasizes self-improvement  
drills involving breath control, resonance, pitch, inflection and ar-  
ticulation and introduces a study of the vocal mechanism, its parts  
and their functions. Additionally, this course covers the study and  
application of the International Phonetic Alphabet (IPA), and in-  
cludes a special study and application of stage dialects and/or accent  
reduction.  

TA 377  Musical Theatre Techniques  3 Units  
Prerequisite: Theatre Arts 350 with a grade of “C” or better.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course is a performance oriented course integrating acting and  
singing skills through the creation of a whole, unified character. The  
course is both an introduction for students with little or no previ-  
ous musical theatre experience and a continuing performance forum  
for those with previous training. Primary emphasis in this course is  
placed on the three core areas of musical theatre performance: act-  
ing, singing, and movement. Field trips may be required.  

TA 390  Directing and Play Production  3 Units  
Prerequisite: TA 351 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 and ESLL 320 with a grade of  
“C” or better; OR placement through assessment process.  
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, casting the show, blocking and rehearsing  
actors, and dealing with technical and promotion needs. It also in-  
cludes directing scenes and preparing a prompt book.  

TA 397  Introduction to Readers’ Theatre  3 Units  
Advisory: ENGWR 102 and ENGRD 116 or ESLR 320, ESLL 320,  
ESLW 320; or placement through assessment.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This is an introductory course to group oral performance of litera-  
ture. The course explores the analysis of poetry, prose and drama  
with a goal of adapting literary materials for group performance.  
Students develop analytical and performance skills which culminate  
in Reader’s Theatre presentations.  

TA 400  Creative Drama for Children  3 Units  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course will explore basic drama forms to help the drama leader  
guide children in developing their own dramatic skills. The course  
provides instruction on how to infuse drama, pantomime, improvisa-  
tion, and creative role-playing into school curriculum and recreation-  
al programs. This class is designed for anyone who interacts with  
pre-school and elementary age children.  

TA 404  Techniques of Puppetry  3 Units  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course explores puppetry as a dramatic medium. Topics to  
be covered include: 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  
General Education: AA/AS Area F; CSU Area C1  
Enrollment Limitation: Audition  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course explores children’s literature in performance through dra-  
matic presentations of fiction, drama and poetry for an audience of  
children or young people. It provides the opportunity to analyze and  
experience the production process from script to stage. Class par-  
ticipation includes the development of a touring children’s produc-  
tion. No prior theatrical experience is required. 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, ENGWR 51 and ENGRD 15.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 72 hours LAB  
This course is an introduction to backstage and the creation of scenery  
for theatre, film and 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 experi-  
ence gained from working on department production. (CAN DRAM 12)
TA 422  Stage Lighting  3 Units
Advisory: MATH 25, ENGRD 51 and ENGRD 15.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 72 hours LAB
This course is an introduction to the basic concepts of lighting for stage, film and television. The course covers the planning of lighting from the basics of electricity, equipment and control, to the design elements of color, space, scenery and movement to produce a lighting design. (CAN DRAM 10)

TA 424  Advanced Technical Theatre  3 Units
Prerequisite: TA 420 and 422.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 72 hours LAB
This course is an advanced study dealing with technical theatre production techniques and design in the areas of scenery, props, lighting, sound, scenic painting, rigging and stage management through individual projects and participation in major productions. May be taken twice for credit.

TA 430  Costume Construction  3 Units
Advisory: ENGRD 51 and ENGRD 15 or ESLW 310 and ESLR 310, or placement through assessment.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course explores the basic areas of costume construction: fabrics, color, patterns, sewing techniques, costume pieces and accessories. Period styles, costume analysis and basic design are also covered. Costume construction will be for theatrical productions. Students gain experience by constructing costumes for theatrical productions. May be taken twice for credit.

TA 433  Costume Production  .5-3 Units
Advisory: TA 430.
Course Transferable to CSU
Hours: 162 hours LAB
This 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. Additionally the course examines the design process and period styles associated with each production. This course is open to all skill levels. It may be taken four times for a maximum of twelve units.

TA 434  Vintage Costuming  .5-2 Units
Same As: FASHN 334
Advisory: ENGRD 051 and ENGRD 015, or ESLW 310 and ESLR 310 or placement through assessment process.
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers the factors that influence historical costume design and production. Principles and techniques involved in developing and constructing a period costume included. The course demonstrate these by fabricating their own costumes. The historical period will change each semester. May be taken four times for credit on different topics with a maximum of 8 units. Not open to those who have completed FASHN 334 on the same topic.

TA 435  History and Theory of Costuming  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; OR placement through assessment process.
General Education: AA/AS Area I; CSU Area C1
Course Transferable to CSU
Hours: 54 hours LEC
This is a survey course of historical periods as portrayed through fashion and costumes from the cradle of civilization through modern times. The impact of social, political, cultural and economic issues on costuming is explored, as is the effect of costumes on society. Students integrate design elements with historical styles to create designs for theatrical costumes. AA/AS area B; CSU area C1

TA 437  Stage Make Up - I  2 Units
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers the basic techniques of theatrical makeup. It explores makeup materials, color and light, and modeling techniques in the development of makeup designs for youth, middle and old age, historical persons, stylized faces, clowns, animals, and fantasy makeup. (CAN DRAM 14)

TA 440  Arts Management  3 Units
Advisory: ENGRD 102 and ENGRD 116 or ESLR 320, ESLW 320, ESLR 320 or placement through the assessment process.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a general survey class in arts management with emphasis on organization, marketing/development, and financial management. It includes promotion and publicity, house management, box office operations and public relations. Field work will include projects with an existing arts organization.

TA 452  One-Act Play Workshop  3 Units
Prerequisite: TA 350 or 480, and TA 351 or 360 or 420 or 422.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course explores the play production process. Class members collaborate in the analysis, preparation and production of one-act plays through participation as either directors, writers, actors, or technicians. The process culminates in public performances. May be taken four times for credit.

TA 460  Rehearsal and Performance  .5-3 Units
Prerequisite: Audition/Interview.
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course provides a workshop training experience in the preparation and performance of collegiate theatre productions. Actors audition with the director of acting, singing or dancing roles. Students interested in technical work interview for backstage positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. May be taken four times for credit.

TA 461  Rehearsal and Performance - Drama  .5-3 Units
Prerequisite: Audition.
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course provides a workshop training experience in the preparation and performance of dramatic theatre productions. Actors audition with the director for acting roles. Students interested in technical work interview for backstage positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. May be taken four times for credit for a maximum of 12 units.
TA 462  Rehearsal and Performance - Comedy  .5-3 Units
Prerequisite: Audition.
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course provides a workshop training experience in the preparation and performance of comedy theatre productions. Actors audition with the director for acting roles. Students interested in technical work interview for backstage positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. May be taken four times for credit for a maximum of 12 units.

TA 463  Rehearsal and Performance - Classical  .5-3 Units
Prerequisite: Audition.
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course provides a workshop training experience in the preparation and performance of classical theatre productions. Actors audition with the director for acting roles. Students interested in technical work interview for backstage positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. May be taken four times for credit for a maximum of 12 units.

TA 464  Rehearsal and Performance - Children's Show  .5-3 Units
Prerequisite: Audition.
Course Transferable to CSU
Hours: 162 hours LAB
This course provides a workshop training experience in the preparation and performance of children's theatre productions. Actors audition with the director for acting roles. Students interested in technical work interview for backstage positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. May be taken four times for credit for a maximum of 12 units.

TA 465  Rehearsal and Performance - Musical  .5-3 Units
Prerequisite: Audition.
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course provides a workshop training experience in the preparation and performance of musical theatre productions. Actors audition with the director for acting roles. Students interested in technical work interview for backstage positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. May be taken four times for credit for a maximum of 12 units.

TA 466  Rehearsal and Performance - Musical Ensemble  .5-3 Units
Same As: MUP 370
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course explores the development of a musical theatre production presented before the campus and community. A different production will be presented each semester the course is offered. May be taken four times for credit for a maximum of 12 units. Not open to students who are taking MUP 370 for the same production.

TA 470  Rehearsal and Performance II  .5-3 Units
Prerequisite: Theatre Arts 461, 462, 463, 464, 465, and 466 with a grade of "C" or better and audition.
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course provides intermediate level workshop training experiences in the preparation and performance of dramatic theatre productions. It examines the techniques of play production through practical audition rehearsal and performance for the actor, director, and stage manager. It explores the design and technical elements of a production through practical experience opportunities in set construction, costumes, makeup, lighting, sound, box office and publicity. May be taken four times for credit for a maximum of 12 units.

TA 472  Rehearsal and Performance III  .5-3 Units
Prerequisite: Theatre Arts 470 with a grade of "C" or better.
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course provides intermediate level workshop training experiences in the preparation and performance of dramatic theatre productions. It examines the techniques of play production through practical audition rehearsal and performance for the actor, director, and stage manager. It explores the design and technical elements of a production through practical experience opportunities in set construction, costumes, makeup, lighting, sound, box office and publicity. May be taken four times for credit for a maximum of 12 units.

TA 475  Fundamentals of Repertory Production  .5-6 Units
Prerequisite: Audition/Interview.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 216 hours LAB
This repertory production workshop provides for participation in one or more productions, working in all areas of theatre including acting, scenery, lighting, costumes, make-up and theatre publicity, and culminates in performances at the end of the session. May be taken four times for credit up to a maximum of 12 units.

TA 477  Repertory Production - II  .5-6 Units
Prerequisite: TA 475 with a grade of "C" or better and audition.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 216 hours LAB
This repertory production workshop provides for intermediate opportunities in one or more productions, working in all areas of theatre including acting, stage managing, scenery, lighting, costumes, make-up and theatre publicity, and culminates in performances at the end of the session. May be taken four times for credit up to a maximum of 12 units.

TA 478  Repertory Production - III  .5-6 Units
Prerequisite: TA 477 with a grade of "C" or better and audition.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 216 hours LAB
This repertory production workshop provides for advanced opportunities in one of more productions, working in all areas of theatre including acting, stage managing, scenery, lighting, costumes, make-up and theatre publicity, and culminates in performances at the end of the session. May be taken four times for credit for a maximum of 12 units.
TA 480  Honors Theory and Techniques of Acting  3 Units
Prerequisite: Cumulative GPA of 3.0 or above; two semester of high school drama; ENGRWR 300 or 480 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
The major theories and techniques of acting, including improvisation, physical expressiveness, voice production and memorized scenes. Supplementary reading and writing required. Attendance at live theatrical performances required.

TA 481  Honors Seminar in History of Film  1 Unit
Prerequisite: A cumulative GPA of 3.0 or above; ENGRWR 300 or 480 with a grade of “C” or better
Corequisite: TA 312, 314, or 315; TA 312, 314, or 315
Advisory: TA 310
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC
This honors course (a supplement to TA 312, 314, and 315) provides a seminar for advanced students to view and analyze additional films important to the development of cinematic art to analyze and criticize those films in terms of acting, directing, writing, editing, cinematography, and genre. May be taken twice with different coerequisites.

TA 494  Topics in Theatre Arts  .5-3 Units
Course Transferable to CSU
Hours: 54 hours LEC; 162 hours LAB
This course is designed to give students an opportunity to study topics in theatre which are not included in current course offerings. May be taken four times for credit for a maximum of 12 units on different topics.

TA 498  Work Experience in Theatre Arts  1-4 Units
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 18 hours LEC; 300 hours LAB
This course provides a supervised work experience in a professional theatre setting. Students may be assigned to work the box office, wardrobe, scenery construction, properties, lighting and sound, stage management, costuming, makeup, design, or acting. May be taken four times for a maximum of 8 units.
The ARC Program

The American Welding Society (AWS) nationally accredits American River College’s welding program. ARC has met all the requirements of the AWS QC4 Standards for Accreditation of Test Facilities for their Certified Welder Program. AWS certification is recognized by the welding industry as an important step in professional development.

Welding Technology Degree

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.

Career Opportunities

Welding certification is recognized by the welding industry as an important step in the profession. The American Welding Society (AWS) nationally accredits American River College’s welding program. The ARC welding program has met all the requirements of the AWS QC4 standards for Accreditation of Test Facilities for their Certified Welder Program.

Graduating students may find positions in oil refineries, nuclear power plants, aerospace, structural buildings, bridge construction, auto industry, and small commercial fabricating shops.

Requirements for Degree 37 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>WELD 102</td>
<td>Introduction to Welding Metallurgy</td>
<td>3</td>
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<tr>
<td>WELD 116</td>
<td>Welding Inspection</td>
<td>3</td>
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<tr>
<td>WELD 130</td>
<td>Gas Tungsten Arc Welding</td>
<td>3</td>
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<tr>
<td>WELD 133</td>
<td>Gas Metal Arc Welding</td>
<td>3</td>
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<tr>
<td>WELD 134</td>
<td>Gas Metal Arc Welding, Semi-Automatic Processes</td>
<td>3</td>
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<tr>
<td>WELD 140</td>
<td>Mathematics for Welding Technicians</td>
<td>3</td>
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<tr>
<td>WELD 300</td>
<td>Introduction to Welding</td>
<td>3</td>
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<tr>
<td>WELD 320</td>
<td>Shielded Metal Arc Welding (Stick Electrode Welding)</td>
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<tr>
<td>WELD 321</td>
<td>Shielded Metal Arc Welding (Stick Electrode Welding)</td>
<td>3</td>
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<tr>
<td>WELD 322</td>
<td>Advanced Pipe Welding in Shielded Metal Arc</td>
<td>3</td>
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<tr>
<td>WELD 332</td>
<td>Gas Tungsten Arc Welding (Pipe)</td>
<td>3</td>
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<td>WELD 335</td>
<td>Flux Core Arc Welding</td>
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<tr>
<td>WELD 342</td>
<td>Symbol Reading, Layout and Fabrication</td>
<td>3</td>
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</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.

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.

Requirements for Certificate 11 Units

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>WELD 133</td>
<td>Gas Metal Arc Welding, Semi-Automatic Processes</td>
<td>3</td>
</tr>
<tr>
<td>WELD 134</td>
<td>Gas Metal Arc Welding of Non-Ferrous Metals</td>
<td>2</td>
</tr>
<tr>
<td>WELD 300</td>
<td>Introduction to Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 335</td>
<td>Flux Core Arc Welding</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

Requirements for Certificate 9 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>WELD 130</td>
<td>Gas Tungsten Arc Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 300</td>
<td>Introduction to Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 332</td>
<td>Gas Tungsten Arc Welding (Pipe)</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

Requirements for Certificate 12 Units

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>WELD 107</td>
<td>Welding Equipment Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>WELD 140</td>
<td>Mathematics for Welding Technicians</td>
<td>3</td>
</tr>
<tr>
<td>WELD 300</td>
<td>Introduction to Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 342</td>
<td>Symbol Reading, Layout and Fabrication</td>
<td>3</td>
</tr>
</tbody>
</table>

Shielded Metal Arc Plate and Pipe (270 hours) Certificate

The Shielded Metal Arc Welding plate and pipe 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.
Welding Metallurgy and Inspection (270 hours) Certificate

The Welding Metallurgy and Inspection certificate provides the science of metallurgy and weld inspection. Emphasis is on the identification and selection of irons and steels, 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.

Requirements for Certificate 12 Units

WELD 300 Introduction to Welding .................................................... 3
WELD 320 Shielded Metal Arc Welding (Stick Electrode Welding) ...... 3
WELD 321 Shielded Metal Arc Welding (Stick Electrode Welding) ...... 3
WELD 322 Advanced Pipe Welding in Shielded Metal Arc ................. 3

WELD 323 Advanced Tungsten Inert Gas Welding ............................. 3
WELD 324 Gas Metal Arc Welding of Sheet Steel .............................. 3
WELD 325 shielded Metal Arc Welding of Plate Steel ............................ 3
WELD 326 Gas Tungsten Arc Welding .................................................. 3
WELD 327 Shielded Metal Arc Welding of Tubing ............................... 3
WELD 328 Welding of Nonferrous Metals .......................................... 3
WELD 329 Welding of Special Steels .................................................. 3
WELD 330 Shielded Metal Arc Welding of Rebars ............................ 3
WELD 331 Brazing and Soldering ....................................................... 3
WELD 332 Arc Welding and Cutting 1 Unit

Prerequisite: Acceptance into a registered apprenticeship program.

WELD 107 Welding Equipment Maintenance 3 Units

Hours: 36 hours LEC; 54 hours LAB

This course covers the basics of welding equipment maintenance, trouble-shooting 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. A field trip is required.

WELD 115 Code Welding 2 Units

Prerequisite: WELD 300 with a grade of “C” or better.

Hours: 18 hours LEC; 54 hours LAB

This course provides individualized training for welder performance qualification. Welders select the code, metal, process, and position to be used. Code and test requirements are presented. This course may be taken four times for credit using a different code, metal, process, or position.

WELD 116 Welding Inspection 2 Units

Prerequisite: WELD 300.

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. It includes the rules and regulations for the welding inspection industry and the principles, requirements, and methods of inspection. Weld measurement and discontinuities for evaluation acceptance using a variety of tools are taught.

WELD 117 Ultrasonic Testing Level One 3 Units

Hours: 45 hours LEC; 27 hours LAB

This course covers the theory, technique application, and evaluation techniques 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 many others are covered. Proper safety techniques are also covered. Successful completion of this course certifies that the requirements of ASNT TCI-A for UT level 1 are met.

WELD 118 Ultrasonic Testing Level Two 3 Units

Prerequisite: WELD 117 with a grade of “C” or better.

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. Advanced ultrasonic testing as applied to industry practices such as building construction, aeronautics, shipbuilding, materials fabrication and many others are covered. Proper safety techniques are also covered. Successful completion of this course certifies that the requirements of ASNT TCI-A for UT level II are met.

WELD 123 Welding Certification to D1.5 Bridge Code 1 Unit

Prerequisite: WELD 320 with a grade of “C” or better.

Hours: 9 hours LEC; 27 hours LAB

This course covers the welding requirements of the American Association of State Highway and Transportation Officials (AASHTO) for welded highway bridges made from carbon and low-alloy steel constructions. It includes the general requirements for welder certification under this code. This course provides welding procedures for certification in accordance with ANSI/AASHTO/AWS D1.5 Bridge Welding Code, an American National Standard.

WELD 130 Gas Tungsten Arc Welding 3 Units

Prerequisite: WELD 300 with a grade of “C” or better.

Hours: 36 hours LEC; 54 hours LAB

This course covers tungsten inert gas welding of aluminum, stainless steel, and other metals used in industry. Certification and procedure qualification using Gas Tungsten Arc Welding (GTAW) are also covered.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>WELD 133</td>
<td>Gas Metal Arc Welding, Semi-Automatic Processes</td>
<td>3</td>
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<tr>
<td></td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<tr>
<td></td>
<td>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 covered.</td>
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<tr>
<td>WELD 134</td>
<td>Gas Metal Arc Welding: Ferrous and Non-Ferrous Metals</td>
<td>2</td>
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<tr>
<td></td>
<td>Hours: 18 hours LEC; 54 hours LAB</td>
<td></td>
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<tr>
<td></td>
<td>This course covers semiautomatic wire feed welding including fine through heavy wire welding 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. This course content is relevant to the performance qualification test of the American Welding Society (AWS) D1.2 and D1.6.</td>
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<tr>
<td>WELD 140</td>
<td>Mathematics for Welding Technicians</td>
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<td></td>
<td>General Education: AA/AS Area II(b)</td>
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<td>Hours: 54 hours LEC</td>
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<td>This course covers the application of mathematics in technical and trade work. It applies mathematical principles to the welding trade. Areas covered are common fractions, fraction/decimal conversion, percentages, practical algebra, rectangles, triangles, metric measurement, measuring instruments, strength of materials and essentials of trigonometry. Problems involving labor and cost of material are also covered.</td>
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<tr>
<td>WELD 150</td>
<td>Employability Skills for Technical Careers</td>
<td>2</td>
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<td></td>
<td>Same As: AT 107 and ET 250</td>
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<td></td>
<td>General Education: AA/AS Area III(b)</td>
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<td>Hours: 36 hours LEC</td>
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<td>This course provides the opportunity of exploring technical careers while developing valuable work and life skills. It is an introduction to a variety of technically-related occupations. Emphasis is placed on exploring technical careers in the Sacramento area. Activities are designed to enhance personal development, employability skills, and self esteem through leadership, citizenship, and character development. Not open to students who have completed AT 107 or ET 250.</td>
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<tr>
<td>WELD 290</td>
<td>Advanced Student Projects</td>
<td>2</td>
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<td></td>
<td>Prerequisite: WELD 300 with a grade of “C” or better</td>
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<td></td>
<td>Hours: 108 hours LAB</td>
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<td></td>
<td>This course provides an opportunity to pursue advanced projects selected by the welding department. This course may be taken twice for credit.</td>
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<tr>
<td>WELD 294</td>
<td>Topics in Welding</td>
<td>.5-5</td>
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<td></td>
<td>Prerequisite: To be determined for each topic.</td>
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<td></td>
<td>Hours: 9 hours LEC; 270 hours LAB</td>
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<td></td>
<td>Individualized course developed in cooperation with industry to meet specialized training needs. This course may be taken four times with different topics.</td>
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<tr>
<td>WELD 300</td>
<td>Introduction to Welding</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<td></td>
<td>This course is an introduction to welding processes: 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, oxyacetylene welding and cutting is also covered.</td>
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<tr>
<td>WELD 320</td>
<td>Shielded Metal Arc Welding (Stick Electrode Welding)</td>
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<td></td>
<td>Prerequisite: WELD 300 with a grade of “C” or better</td>
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<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<td>This course covers pre-employment training for welding technicians. Emphasis is on developing manipulative proficiency in the use of Shielded Metal Arc Welding (SMAW) in the flat, horizontal, vertical and overhead positions on light and heavy gage material. Groove welding of plates, with limited and unlimited thickness in accordance with D1.1 Structural Welding Code, is also covered.</td>
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<tr>
<td>WELD 321</td>
<td>Shielded Metal Arc Welding (Stick Electrode Welding)</td>
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<td></td>
<td>Prerequisite: WELD 320 with a grade of “C” or better</td>
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<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<td></td>
<td>This course provides training in shielded metal arc welding skills, using low, medium, and high carbon steels. Topics include all position welding on fillet and groove welds to code specifications. It also provides technical instruction on filler materials, base metals, and arc welding safety.</td>
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<tr>
<td>WELD 322</td>
<td>Advanced Pipe Welding in Shielded Metal Arc</td>
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<td></td>
<td>Prerequisite: WELD 321 with a grade of “C” or better</td>
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<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<td>The course covers the application of an electric welding process: shielded metal arc is used to join low-pressure piping systems that carry water, residential natural gas, non-corrosive and non-combustible piping systems. High pressure critical piping systems such as steam pipe, pipe lines, boilers, offshore oil-rigs and other critical heavy duty application of piping systems are covered.</td>
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<tr>
<td>WELD 323</td>
<td>Gas Tungsten Arc Welding (Pipe)</td>
<td>3</td>
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<td>Prerequisite: WELD 130 with a grade of “C” or better</td>
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<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<tr>
<td></td>
<td>This course covers the application of low-pressure and high-pressure critical piping systems such as in oil, gas, nuclear, and chemical industries.</td>
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<tr>
<td>WELD 335</td>
<td>Flux Core Arc Welding</td>
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<tr>
<td></td>
<td>Prerequisite: WELD 300 with a grade of “C” or better</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<td></td>
<td>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.</td>
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<tr>
<td>WELD 342</td>
<td>Symbol Reading, Layout and Fabrication</td>
<td>3</td>
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<tr>
<td></td>
<td>Corequisite: WELD 300</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
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<td>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 specification, structural shapes, sections, detail, and assembly.</td>
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</tbody>
</table>