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:

Accounting
Administrative Assistant (Business Technology)
Advertising & Sales Promotion (Marketing)
*Anthropology
Art
Art New Media
*Automotive Analysis
*Automotive Collision Technology
*Automotive Component Service Technician
*Automotive Technology
*Biotechnology
Business, General
Business Transfer
Chemical Dependency
(Human Services)
Commercial Music
*Computer Programming
*Computer Science
*Computer Networking Management
Culinary Arts/Restaurant Management
(Hospitality Management)
*Database Management (Computer Information Science)
*Design Technology
Diesel Mechanics
Early Childhood Education
*Electronic Systems Technology (Electronics Technology)
*Engineering Technology (Design & Engineering)
*Engineering Transfer (Design & Engineering)
English
Family & Consumer Science
Fashion Design
Fashion Merchandising
Fire Technology
*Funeral Service Education
General Education - Transfer
*Geographic Information Systems (Geography)
*Geography
Gerontology
Human Services

*Information Systems Security
(Computer Information Science)
Interior Design
Interpreter Training (Sign Language Studies)
Jazz Studies (Music)
Journalism and Mass Communication
*Landscape Industry (Horticulture)
Legal Assisting
Liberal Arts
Liberal Studies
*LVN to RN Career Mobility (Nursing)
Management
Marketing
*Mathematics
*Mathematics/Physical Science
*Mechtronics (Electronics Technology)
Microcomputer Applications
(Computer Information Science)
Modern Management
Music
*Natural Resources
*Nursing, Registered
*Nursery Industry (Horticulture)
Office Administration (Business Technology)
*Paramedic
*PC Support Management (Computer Information Science)
Psychology
Real Estate
Recreation Management
*Respiratory Care
Retail Management (Marketing)
*Science, General
Sign Language Studies
Small Business Management (Business)
Social Science
Technical Communication (Art New Media, CIS, English)
Theatre Arts
*Welding Technology

*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:

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

Certificate programs provide vocational training for students who are not necessarily seeking a college degree. They are offered in various fields, including accounting, automotive technology, business, culinary arts, computer networking, and more. Each program requires a specific number of units and a minimum GPA to complete, with a minimum of 12 units required to be completed at American River College.
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.

| Level 1: | 3-6 units |
| Level 2: | 7-11 units |
| Level 3: | 12-17.5 units |

- 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 Level 3
- Costuming (Theatre Arts) Level 3
- Digital Repair and Upgrade Technician 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 Level 2
- Gas Metal Arc and Flux Core Arc Welding Plate 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 Level 1
- Introduction to Leadership in Action Level 3
- Introductory Baking (Hospitality Management) Level 3
- Jazz Studies (Music) Level 3
- Law Office Assistant Level 3
- Leadership in Action: Psychology & Team Facilitation Level 2
- Leadership in Action: Systems Thinking Level 2
- Leadership in Action: Theory of Knowledge/Prediction Level 2
- Leadership in Action: Variation and Statistics Level 2
- Leadership Development (Student Government) Level 3
- Mathematics and Blueprint Interpretation (Welding) 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 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 (Co-op) is a unique, experiential, academic program which allows students to apply what they have learned in the classroom to a work environment. Upon completion of their Co-op Work Experience, students may earn 1-4 units of transferable credit with a letter grade. Co-op serves college interns, volunteers, and employees.

Co-op internships & opportunities

Internships and volunteer experiences provide an opportunity for students to obtain work experience in their major. This activity assists students to develop technical skills, check out possible career choices, build confidence, network with people in the field, and transition for entry into a competitive labor market.

Interested students must apply two or more weeks before classes start and are required to participate in a weekly career management orientation. College credit is earned and internships may be paid or non-paid.

Employees

(Co-op also assists our busy employed students who are interested in advancing within their existing work environment. Through Co-op and the approval of the student’s employer supervisor, students can apply what they have learned in the classroom to their job and earn college credit.

Note: Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation

How the Co-op Work Experience and Internship Program works

There are two types of Co-op organization plans:

Parallel plan:
- During the semester, students must enroll in a minimum of seven units including a Work Experience orientation.
- During summer session, students must enroll in one class in addition to a Work Experience orientation.

Alternate plan:
- Full-time enrollment one semester and work full-time the following semester. Concurrent enrollment will be limited to one class.

Occupational work experience (298/498)

Provides students with opportunities to develop or add marketable skills related to their major study programs.

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 Co-op Work Experience & Internship office located in the Career Center in the Student Services Building.
- Students must have a cooperating employer by the end of the third week of the full semester or first week of a nine week (or summer session) to remain in the program.
- With employer’s assistance, establish new or expand on-the-job skills that will be documented.
programs of study

• Attend a weekly career management orientation or qualify for the “Returning Co-op 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.

Returning Student Status:
• Your grade and units are earned based on your work performance and outside homework assignments that emphasize career transition.

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

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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 their actual job.

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 Co-op Work Experience & Internship office located in the Career Center in the Student Services Building.
• Students must have a cooperating employer by the end of the third week of the full semester or first week of a nine week (or summer session) to remain in the program.
• With employer’s assistance, establish new or expand on-the-job skills that will be documented.
• Attend a weekly career management orientation or qualify for the “Returning Co-op Student” status. However, attendance is required for everyone for the first two orientations.
• 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 volunteer work experience. A total of 6 units may be earned in General Work Experience.

Co-op Work Experience (198/298/498)

Co-op has two different ways to qualify for the program:

New (1st Time Co-op) Student Status:
• You are working a paid or non-paid internship, job, or volunteer opportunity.
• You must attend the 18 hour orientation that meets each week. This orientation will cover workforce/career transition issues.
• 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 Co-op class with a grade of “C” or better, at ARC.
• You are working a paid or non-paid internship, job, or volunteer opportunity.
• No orientation is required for this status except for the first orientation meeting. However, you must establish new on-the-job skills with your employer and complete all the necessary program forms as stated by your instructor.

Students who are enrolled in regular catalog courses at American River College, and are in good standing, 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.

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American River College Catalog 2007-2008
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. Petition for Independent or Special Study must be filed before the end of the sixth week of 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 counselors 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.
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 four (4) requirements:

1. Satisfactory completion of 60 units of collegiate work (excluding 200 – 299 numbered courses taken Fall 1989 – Spring 2003, 1-99 numbered courses taken after Spring 2003, & 1,000 or higher numbered courses) with a C (2.0) grade point average in a curriculum that the district accepts toward the degree. At least 12 of the 60 units must be earned at American River College.

2. Major (Minimum 18 units). Completion of one of the following options:
   A. Option I – Lower division general education pattern of the California State Universities. Courses used to complete this option may also be used to complete other ARC Graduation Requirements.
   B. Option II – Lower division general education pattern of the Intersegmental General Education Transfer Curriculum (IGETC). Courses used to complete this option may be used to complete other ARC Graduation Requirements.
   C. Option III – a two-year Major Program of Study offered at American River College. See ARC Major Programs of Study in the ARC Catalog.

3. 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. ARC’s general education requirements are listed on the next page.

4. All students who wish to receive an A.A. or A.S. degree from American River College must demonstrate competency in writing, reading and mathematics as listed below.
   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; ENGRD 310, 312; ESLR 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.
   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; CISP 340; ET 310 & 311; PHIL 325; PSYC 330; STAT 301, 481; 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.
I. Humanities – One course from the following (3 units minimum):

II. Language & Rationality – Two courses (6 units minimum):
- One course from the following: (3 units minimum)
  BUS 310; ENGWR 103, 300, 480; ESLW 340;
- One additional course from the following: (3 units minimum)
  ANTH 340; AT 105; BUS 105; CISA 305, 315, 320; CISC 300; CISP 315, 317, 320, 340, 350, 360, 400, 440; ET 310, 311; ENGCW 400, 430; ENGRD 310, 312; ENGWWR 301, 302, 330, 342, 481, 482; ESL 350; GEOG 330, 375; JOUR 300; MGMT 360; MATH 120, 300, 310, 320, 325, 330, 340, 342, 344, 350, 370, 400; PHIL 320, 325; PSYC 330; SPEECH 301, 331, 361; STAT 301, 481; WELD 140

III. Living Skills – (3 units minimum):
- One Physical Education activity course with one of the following prefixes:
  ADAPT, DANCE, FITNS, PACT, TMACT, SPORT
- Minimum of 2 units from the following:
  AT 107; BUS 320; CISC 300; ECE 330, 350; ECON 320; ENGED 320, 325; ET 250; GERON 300, 330, 335; HCD 310, 318, 330, 331, 336; HEED 300, 352; HSER 340; INDIS 325; LIBR 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

IV. Natural Science – One course from the following (3 units minimum):
- SOCIAL/BEHAVIORAL SCIENCES: One additional course from the following (3 units minimum)

V. Social & Behavioral Sciences – (6 units minimum):
- One course from the following: (3 units minimum)
  HIST 310, 318, 320, 322, 325, 327, 330, 383, 483, 484; POLS 301;
- SOCIAL/BEHAVIORAL SCIENCES: One additional course from the following (3 units minimum)
  ANTH 310, 316, 320, 322, 333, 334, 341; BUS 110, 300, 320, 330, 345; ECE 312, 314, 430, ECON 302, 304, 320; GEOG 310, 320, 322; GERON 302; HIST 301, 302, 305, 307, 308, 340, 341, 343, 364, 365, 367, 373, 480, 481, 494; HSER 330; INDEP 300; JOUR 310; MGMT 174; POLS 302, 310, 322, 330, 332; PSYC 300, 305, 320, 361, 365, 370, 372, 374, 383, 480; SILA 330; SOC 300, 301, 320, 325, 342, 350; SOCSC 310, 312

VI. Ethnic/Multicultural Studies – (3 units minimum)
- One course from the following: (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. 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-year universities will meet the transfer requirements of financial accounting (ACCT 301) and managerial accounting (ACCT 311). Individuals with existing Bachelor’s Degrees can also use these courses to meet the requirements to take the exam for Certified Public Accountant.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 101</td>
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<tr>
<td>ACCT 103</td>
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<td>ACCT 104</td>
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<td>ACCT 107</td>
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<td>ACCT 111</td>
<td>3</td>
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<tr>
<td>ACCT 301</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 311</td>
<td>4</td>
</tr>
<tr>
<td>BUS 110</td>
<td>3</td>
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<tr>
<td>or ECON 302</td>
<td>3</td>
</tr>
<tr>
<td>BUS 300</td>
<td>3</td>
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<tr>
<td>BUS 340</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 108</td>
<td>1</td>
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<td>ACCT 109</td>
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<td>ACCT 121</td>
<td>3</td>
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<td>ACCT 125</td>
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<td>ACCT 128</td>
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<td>ACCT 153</td>
<td>3</td>
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<tr>
<td>ACCT 341</td>
<td>2</td>
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<tr>
<td>ACCT 343</td>
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</table>

And a minimum of 8 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 103</td>
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<tr>
<td>ACCT 104</td>
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<tr>
<td>ACCT 107</td>
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<td>ACCT 111</td>
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<td>ACCT 121</td>
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<tr>
<td>ACCT 125</td>
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<tr>
<td>ACCT 128</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 153</td>
<td>3</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

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 101</td>
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<tr>
<td>ACCT 301</td>
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<td>ACCT 311</td>
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<td>ACCT 341</td>
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<tr>
<td>ACCT 343</td>
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<tr>
<td>BUS 340</td>
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And a minimum of 9 units from the following:

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>ACCT 125</td>
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<tr>
<td>ACCT 128</td>
<td>4</td>
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<tr>
<td>ACCT 153</td>
<td>3</td>
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</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

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 101</td>
<td>3</td>
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<tr>
<td>ACCT 301</td>
<td>3</td>
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<tr>
<td>ACCT 341</td>
<td>2</td>
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<tr>
<td>BUS 105</td>
<td>3</td>
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<tr>
<td>BUS 310</td>
<td>3</td>
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<tr>
<td>CISA 315</td>
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</table>

A minimum of 2 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 108</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 343</td>
<td>2</td>
</tr>
<tr>
<td>ACCT 498</td>
<td>2</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>1 - 3</td>
</tr>
<tr>
<td>CISA 305</td>
<td>2</td>
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</tbody>
</table>
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 13-16 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>
<tr>
<td>ACCT 408</td>
<td>Work Experience in Accounting</td>
<td>1 - 4</td>
</tr>
</tbody>
</table>

1'Appropriate work experience is typically obtained by participation in the college's VITA program. Enrollment in ACCT 408 with alternate 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 ENGRWR 102 or 103, and ENGRD 116 or ESLR 320 and ESLW 320.*

*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, book 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.*

*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 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 ESR 320 and ESLW 320; BUS 350.
Hours: 18 hours LEC
This class 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.
Course: PREREQUISITE: ACCT 301.
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course combines the study of accounting and computer spreadsheet. 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
Enrollment Limitation: Must be enrolled in a minimum of 7 units at ARC.
Course Transferable to CSU
Hours: 18 hours LEC; 60-225 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.
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

ANTH 300 Physical Anthropology (3) or ANTH 480 Honors Physical Anthropology (3) 3
ANTH 301 Physical Anthropology Laboratory 1
ANTH 310 Cultural Anthropology 3
ANTH 320 Introduction to Archaeology and World Prehistory 3
And a minimum of 8 units from the following: 8
ANTH 311 Cultural Anthropology Discussion (1)
ANTH 312 Anthropology of Gender (1)
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 American (3)
ANTH 335 Research Methods in Anthropology (3)
ANTH 341 Introduction to Linguistics (3)
ANTH 370 Primatology (3)
ANTH 372 Primatology Field Studies (2)
ANTH 494 Topics in Anthropology (1-4) 1

ANTH 494 Topics in Anthropology (1-4) 1

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
Corequisite: 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 310 Cultural Anthropology 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(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the various customs, traditions, and forms of social 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
Advisory: 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: 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); 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: ENGWR 102 or 103, and ENGRD 116; OR ESLW 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: ENGWR 102 or 103, and ENGRD 116; OR ESLW 320 and ESLW 320; OR placement through assessment process.
General Education: AA/AS Area V(b); CSU Area D1
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: ENGWR 102 or 103, and ENGRD 116; OR ESLW 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: ENGWR 102 or 103, and ENGRD 116; OR ESLW 320 and ESLW 320; OR placement through assessment process.
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 336 Language and Culture 3 Units
Prerequisite: ANTH 300 or 310 with a grade of “C” or better.
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 337 American Indians of California 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 341 Introduction to Linguistics 3 Units
Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLW 320 and ESLW 320; OR placement through assessment process.
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 344 Topics in Anthropology 1-3 Units
Advisory: ENGWR 102 or 103, ENGRD 116 or ESLW 320, ESLW 320.
Course Transferable to CSU
Hours: 18-54 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.

**A.A. Degree:** Carpenter Apprenticeship  
Drywall/Lathing Apprenticeship  
Electrical Apprenticeship  
Electrical Sound and Communications Apprenticeship  
Ironworker Apprenticeship  
Sheet Metal Apprenticeship  
Sheet Metal Service Technician Apprenticeship

**Certificates:** Carpenters Apprenticeship  
Drywall/Lathing Apprenticeship  
Electrical Apprenticeship  
Electrical Sound and Communications Apprenticeship  
Ironworker Apprenticeship  
Residential/Commercial Electrician Trainee  
Sheet Metal Apprenticeship  
Sheet Metal Service Technician Apprenticeship

For more information, contact:  
Program Director  
8000 Chadbourne Rd, Suite A  
Fairfield, CA 95485  
(707) 399-2880

<table>
<thead>
<tr>
<th>Requirements Degree or Certificate</th>
<th>36.5 Units</th>
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<tbody>
<tr>
<td>CARPT 100 Introduction to Carpentry</td>
<td>0.2</td>
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<tr>
<td>CARPT 102 Worker Safety and Tool Skills</td>
<td>1.4</td>
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<tr>
<td>CARPT 104 The Apprentice and the Trade</td>
<td>2</td>
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<tr>
<td>CARPT 110 Foundations and Floors</td>
<td>1</td>
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<tr>
<td>CARPT 112 Structural Framing</td>
<td>1</td>
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<tr>
<td>CARPT 114 Form Detailing, Construction &amp; Erection</td>
<td>1</td>
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<tr>
<td>CARPT 120 Exterior Finish</td>
<td>1</td>
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<tr>
<td>CARPT 122 Interior Finish</td>
<td>1</td>
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<tr>
<td>CARPT 130 Layout/Leveling Construction Site Practice</td>
<td>1</td>
</tr>
<tr>
<td>CARPT 140 Interior Systems</td>
<td>1.3</td>
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<tr>
<td>CARPT 142 Engineered Structural Systems</td>
<td>1</td>
</tr>
<tr>
<td>CARPT 150 Concrete - Precast and Prestressed</td>
<td>1</td>
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<tr>
<td>CARPT 160 Blueprint Reading-Residential</td>
<td>1.3</td>
</tr>
<tr>
<td>CARPT 162 Blueprint Reading-Commercial</td>
<td>1.3</td>
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<tr>
<td>CARPT 170 Roof Framing</td>
<td>1</td>
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<tr>
<td>CARPT 180 Stair Building</td>
<td>1</td>
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<tr>
<td>CARPT 190 Introduction to Welding and Cutting</td>
<td>1</td>
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<tr>
<td>CARPT 200 Construction Mathematics &amp; Introduction to Working Drawing</td>
<td>2</td>
</tr>
<tr>
<td>And a minimum of 16 units from the following:</td>
<td>16</td>
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<tr>
<td>CARPT 298 Work Experience in Carpenters Apprenticeship (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>

**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

Requirements for Degree or Certificate

DRLTH 100  Introduction to the Trade  2
DRLTH 102  Basic Applications  1.5
DRLTH 105  Mathematics for Drywall/Lathers  2
DRLTH 110  Residential Metal Framing  1.5
DRLTH 112  Doors, Windows, Exterior Systems/Building Documents  1.5
DRLTH 120  Blueprint Reading I  1.5
DRLTH 121  Blueprint Reading II  1.5
DRLTH 122  Blueprint Reading III  1.5
DRLTH 130  Welding I  1.5
DRLTH 131  Welding II  1.5
DRLTH 140  Exterior/Advanced Fire Control System and Partitions  1.5
DRLTH 142  Exterior Systems and Trims  1.5
DRLTH 150  Interior Metal Lathing System, Sound Control  1.5
DRLTH 160  Ceilings, Shaft Protection and Demountable Partitions  1.5
DRLTH 162  Arches, Furring and Advanced Systems  1.5
DRLTH 170  Advanced Construction Techniques  1.5

And a minimum of 16 units from the following:  16
DRLTH 298  Work Experience Drywall/Lathing Apprenticeship (1 - 4)

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

Electrical Apprenticeship

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

Requirements for Degree or Certificate

ELECT 110  Electrical Apprenticeship I  5
ELECT 111  Electrical Apprenticeship II  3.3
ELECT 120  Electrical Apprenticeship III  3.3
ELECT 121  Electrical Apprenticeship IV  3.3
ELECT 130  Electrical Apprenticeship V  3.3
ELECT 131  Electrical Apprenticeship VI  3.3
ELECT 140  Electrical Apprenticeship VII  3.3
ELECT 141  Electrical Apprenticeship VIII  3.3
ELECT 150  Electrical Apprenticeship IX  3.3
ELECT 151  Electrical Apprenticeship X  3.3

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.

Requirements for Degree or Certificate

ELSC 100  Electrical Sound & Communication Apprenticeship I  3
ELSC 101  Electrical Sound & Communication Apprenticeship II  3
ELSC 110  Electrical Sound & Communication Apprenticeship III  3
ELSC 111  Electrical Sound & Communication Apprenticeship IV  3
ELSC 120  Electrical Sound & Communication Apprenticeship V  3
ELSC 121  Electrical Sound & Communication Apprenticeship VI  3

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.
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 51st Ave
Sacramento, CA 95823
(916) 428-7420

Requirements for Degree or Certificate 41-41.5 Units
IW 100 Orientation and History of the Trade 1.5
IW 110 Mixed Base 1.5
IW 120 Rigging 1.5
IW 130 Reinforcing I 1.5
IW 131 Reinforcing II/Post Tensioning 1.5
IW 140 Precast Concrete and Metal Buildings 1.5
IW 150 Welding I 1.5
IW 151 Welding II 1.5
IW 152 Welding III 1.5
IW 160 Lead Hazard 1.5
IW 170 Structural I 1.5
IW 171 Structural II 1.5
IW 180 Architectural/Ornamental I 1.5
IW 181 Architectural/Ornamental II (1.5) 1.5-2
or IW 184 Detailing I (2)
IW 182 Architectural/Ornamental III (1.5) 1.5
or IW 185 Detailing II (1.5)
IW 183 The History of Ironworkers 2.5
And a minimum of 16 units from the following: 16
IW 298 Work Experience in Ironworkers Apprenticeship (4)

Associate Degree Requirements: The Ironworkers 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
SHME 100 First Course in Sheet Metal Apprenticeship 3.3
SHME 101 Second Course in Sheet Metal Apprenticeship 3.3
SHME 110 Third Course in Sheet Metal Apprenticeship 3.3
SHME 111 Fourth Course in Sheet Metal Apprenticeship 3.3
SHME 120 Fifth Course in Sheet Metal Apprenticeship 3.3
SHME 121 Sixth Course in Sheet Metal Apprenticeship 3.3

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.

100 Introduction to Apprenticeship 3 Units

Hours: 54 hours LEC
This course provides an introduction to apprenticeship in the electrical, carpenter and sheetmetal trades. Topics include labor history, workers’ rights, construction computations, safety, traditional and non-traditional worker originations.

ELECT 280 Electrical Workers State Certification Preparation 4.5 Units

Advisory: Three years or more of electrical trade experience.
Hours: 82 hours LEC
This is a preparatory course for Electricians’ State Licensing Certification for California. This course reviews basic electrical formulas and provides an in-depth review of the National Electrical Code.
**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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 300</td>
<td>Elementary Drawing and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>or ARTNM 310</td>
<td>Design: Fundamentals</td>
<td></td>
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<tr>
<td>ART 370</td>
<td>Three Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 302</td>
<td>Art: Stone Age Through the Middle Ages</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 308</td>
<td>Renaissance Tradition in Art</td>
<td>3</td>
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<tr>
<td>or ARTH 310</td>
<td>Modern Art</td>
<td></td>
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And a minimum of 15 units from the following:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 322</td>
<td>Design: Image and Content</td>
<td></td>
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<tr>
<td>ART 323</td>
<td>Design: Color Theory</td>
<td></td>
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<tr>
<td>ART 324</td>
<td>Collage and Assemblage</td>
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<tr>
<td>ART 327</td>
<td>Painting (5)</td>
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<tr>
<td>ART 328</td>
<td>Painting (5)</td>
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<tr>
<td>ART 329</td>
<td>Painting II (4)</td>
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<tr>
<td>ART 336</td>
<td>Watercolor Painting</td>
<td></td>
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<tr>
<td>ART 337</td>
<td>Intermediate Watercolor Painting</td>
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</tr>
<tr>
<td>ART 361</td>
<td>Printmaking; Survey</td>
<td></td>
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<tr>
<td>ART 371</td>
<td>Foundry Casting for Sculpture</td>
<td></td>
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<tr>
<td>ART 372</td>
<td>Sculpture</td>
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<tr>
<td>ART 373</td>
<td>Sculpture</td>
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<tr>
<td>ART 375</td>
<td>Figure Sculpture</td>
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<tr>
<td>ART 382</td>
<td>Metal Design: Emphasis in Mixed Media</td>
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<tr>
<td>ART 383</td>
<td>Metal Design: Emphasis in Fabrication</td>
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<tr>
<td>ART 384</td>
<td>Metal Design: Emphasis in Casting</td>
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<tr>
<td>ART 390</td>
<td>Ceramics</td>
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<td>ART 391</td>
<td>Intermediate Ceramics</td>
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<td>ART 398</td>
<td>Ceramic Murals and Tiles</td>
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<tr>
<td>ART 420</td>
<td>Film Making</td>
<td></td>
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<tr>
<td>ART 422</td>
<td>Film Making</td>
<td></td>
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<td>ART 430</td>
<td>Art and Children</td>
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<td>ART 432</td>
<td>Art for Children Practicum</td>
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<tr>
<td>ART 440</td>
<td>Artists' Materials and Techniques</td>
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<tr>
<td>ART 442</td>
<td>Art Gallery Operations</td>
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<td>ART 444</td>
<td>Art Gallery and Portfolio Preparation</td>
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<td>ARTH 300</td>
<td>Introduction to Art</td>
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<td>ARTH 322</td>
<td>Art History of the Non-Western World</td>
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<td>ARTH 333</td>
<td>Introduction to Islamic Art</td>
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<td>ARTH 334</td>
<td>International Contemporary Art</td>
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<tr>
<td>ARTH 483</td>
<td>Honors Art History of the Non-Western World</td>
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</table>

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

**ART 120 Introduction to Metal Fabrication and Sculpture**

*Same As: WELD 104*

*Prerequisite: None.*

*Hours: 0-36 hours LEC, 27-54 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**

*Hours: 0-36 hours LEC, 27-54 hours LAB*

This course covers the hands-on basics of metal forming, design principles and materials used for sculpture, and functional art forms with emphasis on the use of the anvil and the gas forge. Different artists and topics are covered each semester. This course may be taken 4 times for a total of 6 units.

**ART 294 Topics in Art**

*Hours: 9-36 hours LEC, 0-108 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: ENGWRI 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320, or placement through assessment process.*

*General Education: AAAS 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.

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 320
Advisory: ART 304
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, and 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 ESLR 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, collograph, 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: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESLL 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: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESLL 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 constructive media such as wood, found objects, and other materials. The course utilizes a problem-solving format in order to develop knowledge of technical process formal vocabulary, and individual expression. Both historical and contemporary approaches in developing form and content are included.

ART 373  Sculpture 3 Units
Prerequisite: ART 372.
Advisory: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESLL 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 constructive 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. It examines both historical and contemporary approaches in developing form and content. It develops the ability to process visual information and create expressive objects in three dimensions.

ART 374  Sculpture Lab 1-2 Units
Corequisite: Current enrollment in ART 372 or 373 or 375.
Course Transferable to UC/CSU
Hours: 54-108 hours LAB
This course offers laboratory experience to assist in completing complex sculpture projects. The course focuses on the development of a personal creative vision furthering technical skills, and complex problem solving. May be taken three times.

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: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320, or placement through assessment process.
Course Transferable to UC/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, ESLL 320, ESLW 320, or placement through assessment process.
Course Transferable to CSU
Hours: 36-108 hours LAB
This course covers the historical and contemporary approaches to fabrication design. Basic methods and techniques for use with silvers, 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, ESLL 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 UC/CSU
Hours: 54-108 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: 54-108 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 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 430  Art and Children  3 Units
Advisory: ENGRD 116 or ESLR 320, ESLL 320, 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 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 432  Art for Children Practicum  2-4 Units
Prerequisite: ART 431 or 320; ART 300; and one Art History (ARTH) course.
Course Transferable to CSU
Hours: 18-36 hours LEC; 54-108 hours LAB
This practicum class provides students with the opportunity to participate in preschools, elementary or junior high schools and to work with credential lead teachers as “art tutors.”
ART 440  Artists’ Materials and Techniques  3 Units
Advisory: ENGWR 102 or 103, ESLL 320 or ESLR 320 or ESLW 320 or placement through assessment process
General Education: AA/AS Area I
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course focuses on developing and analyzing media used in the creation of paintings and drawings. Information about the various materials, their relationship to personal imagery and style, in both traditional and contemporary painting and drawing is emphasized. Study in the composition of pigments, paints, oil mediums, inks, dyes, pastel, crayon, fresco and other artists’ materials (egg tempera, silver point, encaustic) are fundamental to the course. Included are the use of tools and materials in constructing painting supports and carriers, and techniques of matting and framing art work.

ART 442  Art Gallery Operations  2 Units
Prerequisite: Two college art courses.
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers gallery preparation and maintenance for students grounded in fundamentals of the visual arts. It involves experience in planning and installing exhibitions.

ART 444  Art Gallery and Portfolio Preparation  3 Units
Prerequisite: ART 442 with a grade of “C” or better.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course offers study in both sides of the business world of art, including gaining entrance into galleries as an artist and finding, installing, and advertising professional gallery exhibitions (portfolio management). Emphasis is on the selection of exhibitions, announcements, and receptions in addition to photographing art and preparing artists’ statements and resumes. Field trips to galleries and museums are required. This course may be taken twice for credit.

ART 494  Topics in Art  3-4 Units
Course Transferable to CSU
Hours: 6-36 hours LEC; 9-54 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, ESEW 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 is recommended for all students seeking a basis for understanding art. 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, graphic art, painting and sculpture of European cultures from the Proto-Renaissance to the Post-Impressionist period. 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 evolvement 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 Oceana. The time period covered is from the stone age to the eighteenth century. Field trips and/or individual visitations to various art galleries and museums are required.

ARTH 333  Introduction to Islamic Art  3 Units
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. AA/AS area 3B

ARTH 334  International Contemporary Art  3 Units
Prerequisite: ART 300, ART 310, or HUM 310 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: 36 hours LEC; 54 hours LAB
This course is a worldwide survey of trends in art and architecture since 1980, with an emphasis on the diversity of contemporary global cultures. New art mediums, such as video, computer, and performance art are highlighted. Social and political concerns in art are another primary focus. A field trip to a local art exhibition is also required.
ARTH 480 Honors Introduction to Art 3 Units
Prerequisite: GPA of 3.0 or above; ENGRW 300 or 480 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a 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; ENGRW 300 with a grade of “C” or better or ENGRW 480 with a grade of “C” or better.
Corequisite: ARTH 302
Corequisite: ARTH 308
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; ENGRW 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.

ARTH 483 Honors Art History of the Non-Western World 1 Unit
Prerequisite: Cumulative GPA of 3.0 or above; ENGRW 300 or 480 with a grade of “C” or better.
Corequisite: ART 322
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC
This honors course, a supplement to ARTH 322, will directly address specific items of art cultures of the non-western world. It is an intensely focused study of the art 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.

ARTPH 300 Basic Art Photography 3 Units
Advisory: ENGRW 102 or 103, ESLR 320 or ESLR 320 or ESLW 320 or placement through assessment process
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course consists of a structured examination of the formal and technical aspects of 35mm photography. Topics include critiques of major movements in the history of photography and contemporary silver process artists. A problem-solving approach is utilized to explore compositional ideas. Camera operation, black and white film developing, and printmaking are covered. Digital photography concepts are introduced. A 35mm single lens reflex (SLR) camera as well as darkroom and portfolio supplies are required. Processing chemicals are provided.

ARTPH 305 Digital Photography 3 Units
Advisory: ARTNM 302
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This is a course in basic digital photography. Topics include digital camera functions, exposure systems using f-stop and shutter speed combinations, digital shooting practices, photographic composition and aesthetics, editing tools and software, and print portfolio development. It also includes issues in contemporary photography and the history of photography. Digital cameras with adjustable f-stops and shutter speeds, camera memory cards, re-writable CD’s and memory devices 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 3 Units
Prerequisite: ARTPH 300 or 305 with a grade of “C” or better
Course Transferable to 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 Historical Processes in Photography 3 Units
Advisory: ENGRW 102 or 103, ESLR 320 or ESLR 320 or ESLW 320 or placement through assessment process
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the history of photographic processes from daguerreotype to the digital age with emphasis on photography as an art medium and its evolution as a visual tool. It includes the production of cyanotypes, Van Dyke brown prints, kaltyypes, and color gum bichromate prints. Darkroom supplies, portfolio supplies and related instructional materials are required. No camera is required. Field trips are 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. Film developing, printing and digital processing are emphasized. A portfolio including an extensive photo essay or documentary project is required. A 35mm single lens reflex (SLR) camera or a digital camera 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, basic portraiture, advertising, choice of camera formats and film, white balance adjustments, and color temperature. It also includes study of the history of studio photography. Black and white, color, and digital processes are included. A 35mm single lens reflex (SLR) or digital camera with manual option as well as darkroom and portfolio supplies are required. Field trips are 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 495.
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course offers additional lab hours to more fully develop creative vision and technical skills. It provides additional assistance in assignments and portfolio development. 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>ART 300</td>
<td>Elementary Drawing and Composition</td>
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<tr>
<td>ART 320</td>
<td>Design: Fundamentals (5)</td>
<td>3</td>
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<tr>
<td>or ARTNM 310</td>
<td>Design: Fundamentals (5)</td>
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<tr>
<td>ART 323</td>
<td>Design: Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 310</td>
<td>Modern Art</td>
<td>3</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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And a minimum of 24 units from the following: 24

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<tr>
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<th>Units</th>
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<tbody>
<tr>
<td>ART 306</td>
<td>Facial Expression and Anatomy</td>
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<td>or ARTNM 320</td>
<td>Facial Expression and Anatomy</td>
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<tr>
<td>ARTNM 303</td>
<td>Graphic Design: Typography</td>
<td>(3)</td>
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<td>ARTNM 324</td>
<td>Digital Design</td>
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<td>ARTNM 325</td>
<td>Intermediate Digital Design</td>
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<td>ARTNM 326</td>
<td>Digital Painting</td>
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<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 332</td>
<td>Digital Video</td>
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<td>Design for Publication</td>
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<td>ARTNM 336</td>
<td>Digital Prepress</td>
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<td>ARTNM 338</td>
<td>Advanced Projects in Graphic Design</td>
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<td>ARTNM 350</td>
<td>College Magazine: Art Selection and Editing</td>
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<td>ARTNM 351</td>
<td>College Magazine: Design and Production</td>
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<td>ARTNM 370</td>
<td>Introduction to Illustration</td>
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<td>ARTNM 401</td>
<td>Introduction to Web Development and Design</td>
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<td>or CISW 307</td>
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<td>ARTNM 402</td>
<td>Intermediate Web Design</td>
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<td>ARTNM 404</td>
<td>Interactive Multimedia Basics</td>
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<td>ARTNM 405</td>
<td>Digital 2D Animation</td>
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<td>ARTNM 410</td>
<td>Interactive Multimedia Projects (4)</td>
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<td>ARTNM 420</td>
<td>Introduction to Digital 3D Modeling</td>
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<td>ARTNM 421</td>
<td>3D Character Modeling and Riggin</td>
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<td>ARTNM 422</td>
<td>3D Character Animation</td>
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<td>ARTNM 423</td>
<td>Special Effects and Texturing in 3D Animation</td>
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<td>ARTNM 425</td>
<td>Short Film in 3D Animation</td>
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<td>ARTNM 450</td>
<td>Portfolio for Art New Media</td>
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<td>ARTNM 496</td>
<td>Teaching Assistant in Art New Media</td>
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<td>ARTNM 497</td>
<td>Internship in Art New Media</td>
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<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
<td>(3)</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 continue 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

<table>
<thead>
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<td>ARTNM 305</td>
<td>History of Graphic Design</td>
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<td>ARTNM 310</td>
<td>Design: Fundamentals (5)</td>
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<td>or ART 320</td>
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<td>ARTNM 324</td>
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<td>Digital Photo Imagery - Photoshop Basics</td>
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<tr>
<td>ARTNM 497</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>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 300</td>
<td>Elementary Drawing and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ART 304</td>
<td>Figure Drawing and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ART 323</td>
<td>Design: Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>ART 327</td>
<td>Painting</td>
<td>3</td>
</tr>
<tr>
<td>or ART 336</td>
<td>Watercolor Painting</td>
<td></td>
</tr>
<tr>
<td>ARTH 310</td>
<td>Modern Art</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 302</td>
<td>Digital Basics for Art New Media</td>
<td>1.5</td>
</tr>
<tr>
<td>ARTNM 310</td>
<td>Design: Fundamentals (5)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 320</td>
<td>Design: Fundamentals (5)</td>
<td></td>
</tr>
</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 43.5-46.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 300</td>
<td>Elementary Drawing and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ART 304</td>
<td>Figure Drawing and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ART 375</td>
<td>Figure Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>ART 411</td>
<td>Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 420</td>
<td>Film Making</td>
<td>2</td>
</tr>
<tr>
<td>ARTNM 302</td>
<td>Digital Basics for Art New Media</td>
<td>1.5</td>
</tr>
<tr>
<td>ARTNM 320</td>
<td>Facial Expression and Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>or ART 306</td>
<td>Facial Expression and Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 326</td>
<td>Digital Painting</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 328</td>
<td>Digital Photo Imagery - PhotoShop Basics</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 420</td>
<td>Introduction to Digital 3D Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 421</td>
<td>3D Character Modeling and Rigging</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 422</td>
<td>3D Character Animation</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 423</td>
<td>Special Effects and Texturing in 3D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 425</td>
<td>Short Film in 3D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 450</td>
<td>Portfolio for Art New Media</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 497</td>
<td>Internship in Art New Media</td>
<td>1 - 4</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTNM 324</td>
<td>Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 326</td>
<td>Digital Painting</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 370</td>
<td>Introduction to Illustration (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 314</td>
<td>Introduction to Illustration (3)</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 404</td>
<td>Interactive Multimedia Basics</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 405</td>
<td>Digital 2D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 450</td>
<td>Portfolio for Art New Media</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 470</td>
<td>Portfolio for Art New Media</td>
<td>3</td>
</tr>
</tbody>
</table>

Technical Communication Degree

Requirements for Degree 42.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals (3)</td>
<td>3</td>
</tr>
<tr>
<td>ART 325</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>CIS 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CIS 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>ENGWR 342</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGWR 344</td>
<td>Technical/Professional Communication: Writing Reports (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGWR 348</td>
<td>Technical/Professional Communication: Plain English (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGWR 350</td>
<td>Technical/Professional Communication: Proposal Writing (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>ENGR 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 6 units from the following:

- ENGWR 340 College Literary Magazine (3)
- ENGWR 330 Writing for Publication (3)
- ENGWR 331 Writing for Publication (3)
- ENGWR 354 Introduction to Careers in Technical Communication (1)
- ENGWR 356 Writing Formal Reports (1)
- ENGWR 358 Writing Training Materials (1)
- JOUR 300 Newswriting and Reporting (3)
- JOUR 401 College Newspaper Production (2)
- SPEECH 321 Interpersonal Communication (3)
- or SPEECH 331 Group Discussion (3)

And a minimum of 12 units from the following:

- ARTNM 324 Digital Design (3)
- ARTNM 328 Digital Photo Imagery - PhotoShop Basics (3)
- ARTNM 330 Intermediate Digital Photo Imagery (3)
- ARTNM 352 Design for Publication (3)
- or CISA 330 Desktop Publishing (2)
- or CISA 331 Intermediate Desktop Publishing (2)
- ARTNM 354 Digital Prepress (3)
- ARTNM 402 Intermediate Web Design (3)
- ARTNM 404 Interactive Multimedia Basics (3)
- GISA 315 Introduction to Electronic Spreadsheets (2)
- GISA 340 Presentation Graphics (2)
- CISW 310 Advanced Web Publishing (2)

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>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTNM 352</td>
<td>Design for Publication (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CISA 330</td>
<td>Desktop Publishing (2)</td>
<td>2</td>
</tr>
<tr>
<td>and CISA 331</td>
<td>Intermediate Desktop Publishing (2)</td>
<td>2</td>
</tr>
<tr>
<td>GISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>GISA 306</td>
<td>Intermediate Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>ENGWR 342</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGWR 344</td>
<td>Technical/Professional Communication: Writing Reports (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGWR 348</td>
<td>Technical/Professional Communication: Plain English (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGWR 350</td>
<td>Technical/Professional Communication: Proposal Writing (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>ENGR 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
</tr>
</tbody>
</table>
ARTNM 302  Digital Basics for Art New Media  1.5 Units
Course Transferable to CSU  Hours: 18 hours LEC; 27 hours LAB
This course is an introduction to the digital environment for Art New Media. Topics 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  3 Units
Course Transferable to CSU  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: ENGWR 102 or 103, and 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: ART 300 or 320 and CISC 300 (Macintosh) and 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 is an introduction to computer based design using the basic operating principals of Adobe Illustrator. Design skills and the tools of the software application will be applied to produce individual portfolio quality projects. A field trip is required. 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), ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; or ESLR 320, ESL 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 for credit on a different version.

ARTNM 330  Intermediate Digital Photo Imagery  3 Units
Prerequisite: ART 419 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 imagery. 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: Art New Media 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 Unit
Advisory: ARTH 300 and ARTNM 302.
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course provides the production techniques for art submissions for a college level magazine. Techniques for print quality photography of art are demonstrated. Criteria for the selection of artwork is 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 files are used as visual content for the American River Review. This course may be taken two times 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 esthetic 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 class 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 TA 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: 18 hours LEC; 60-240 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 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 astrotopography. 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:
- Chosen as a T-TEN facility
- 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.

**T-TEN Program**

American River College (in partnership with Toyota Motor Sales) offers a dealership technician training program known as the Toyota Technical Education Network (T-TEN). Toyota technology is folded into automotive classes as students learn on state-of-the-art Toyota vehicles. Students work in a dealership while attending school, receive tool scholarships, and earn advanced standing in Toyota's Master Technician Certification. T-TEN students need to take the following classes in order to receive Toyota Motor Sales industry certification: AT 100, 105, 106, 110, 130, 180, 310, 311, 312, 313, 314, and 322 or 320. Paid word experience is a requirement for each semester enrolled as an ARC T-TEN student (AT 298 for 8.5 units - 640 hours). For more information contact the T-TEN Coordinator, Mike Sipes, at (916) 484-8354.

**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 L1 along with the California Enhanced Area (EA) Smog Check License.

**Career Opportunities**

Automotive Technician; Smog Check Technician

<table>
<thead>
<tr>
<th>Requirements for Degree or Certificate</th>
<th>52 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Semester</td>
<td></td>
</tr>
<tr>
<td>AT 100  Technical Basics for the Automotive Professional</td>
<td>2</td>
</tr>
<tr>
<td>AT 105  Mathematics for Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AT 180  Automotive Data Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>2nd Semester</td>
<td></td>
</tr>
<tr>
<td>AT 110  Automotive Brakes</td>
<td>4</td>
</tr>
<tr>
<td>AT 311  Suspension and Steering Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 312  Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>3rd Semester</td>
<td></td>
</tr>
<tr>
<td>AT 130  Manual Drive Trains and Axles</td>
<td>4</td>
</tr>
<tr>
<td>AT 313  Automatic Transmission and Transaxles</td>
<td>4</td>
</tr>
<tr>
<td>AT 314  Automotive Engine Repair</td>
<td>4</td>
</tr>
<tr>
<td>4th Semester</td>
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<tr>
<td>AT 310  Heating and Air-Conditioning Systems</td>
<td>4</td>
</tr>
<tr>
<td>AT 322  Engine Performance and Electronic Engine Controls</td>
<td>6</td>
</tr>
<tr>
<td>Final Semester</td>
<td></td>
</tr>
<tr>
<td>AT 315  Advanced Engine/Chassis Electrical</td>
<td>4</td>
</tr>
<tr>
<td>AT 323  Clean Air Car Course</td>
<td>6</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 121</td>
<td>Automotive Collision - Removal and Replacement of Non-Structural Components and Damage Analysis</td>
<td>2.5</td>
</tr>
<tr>
<td>AT 122</td>
<td>Automotive Collision - Non-Structural Repairs</td>
<td>2.5</td>
</tr>
<tr>
<td>AT 123</td>
<td>Automotive Collision - Structural Panel &amp; Component Repairs</td>
<td>2.5</td>
</tr>
<tr>
<td>AT 124</td>
<td>Automotive Refinishing Technology</td>
<td>2.5</td>
</tr>
<tr>
<td>AT 126</td>
<td>Automotive Collision Estimating</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>AT 312</td>
<td>Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>WELD 103</td>
<td>Gas Metal Arc Welding of Sheet Steel</td>
<td>1.5</td>
</tr>
</tbody>
</table>

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 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

<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 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>
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</tr>
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<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 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>
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<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100</td>
<td>Technical Basics for the Automotive Professional</td>
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<td>AT 110</td>
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<tr>
<td>AT 130</td>
<td>Manual Drive Trains and Axles</td>
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<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>
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<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>
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<tr>
<td>AT 314</td>
<td>Automotive Engine Repair</td>
<td>4</td>
</tr>
<tr>
<td>AT 320</td>
<td>Engine Performance Technology</td>
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<td>AT 321</td>
<td>Engine Performance Technology</td>
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</table>

Requirements for Certificate  21 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>
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<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>
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<tr>
<td>AT 312</td>
<td>Electrical Systems</td>
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</tr>
<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses</td>
<td>1</td>
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<tr>
<td>BUS 218</td>
<td>Management Skills for the Small Business</td>
<td>1</td>
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<tr>
<td>BUS 224</td>
<td>Customer Service</td>
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<tr>
<td>BUS 300</td>
<td>Beginning Keyboarding/Applications (1 - 3)</td>
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Automotive Collision Estimator Certificate

Requirements for Certificate  16 Units

<table>
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<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>
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</table>

Requirements for Certificate  21 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 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>

And a minimum of 1 unit from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSTEC 300</td>
<td>Beginning Keyboarding/Applications (1 - 3)</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, Heat-

**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.

### Requirements for Certificate 36 Units

- **AT 100** Technical Basics for the Automotive Professional 2
- **AT 105** Mathematics for Automotive Technology 3
- **AT 110** Automotive Brakes 4
- **AT 130** Manual Drive Trains and Axles 4
- **AT 180** Automotive Data Acquisition 3
- **AT 310** Heating and Air-Conditioning Systems 4
- **AT 311** Suspension and Steering Systems 4
- **AT 312** Electrical Systems 4
- **AT 313** Automatic Transmission and Transaxles 4
- **AT 314** Automotive Engine Repair 4

### 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

- **AT 100** Technical Basics for the Automotive Professional 2
- **AT 105** Mathematics for Automotive Technology 3
- **AT 107** Employability Skills for Technical Careers 2
- **AT 143** Automotive Parts and Service Advising 3
- **AT 180** Automotive Data Acquisition 3
- **BUS 100** English for the Professional 3
- **And a minimum of 1 unit from the following:** 1
  - **AT 298** Work Experience in Automotive Technology (1 - 4)

### 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

- **AT 100** Technical Basics for the Automotive Professional 2
- **AT 105** Mathematics for Automotive Technology 3
- **AT 130** Manual Drive Trains and Axles 4
- **AT 140** Advanced Automotive Skill and Speed Development 4
- **AT 180** Automotive Data Acquisition 3
- **AT 210** Advanced Automatic Transmission and Transaxle 4
- **AT 312** Electrical Systems 4
- **AT 313** Automatic Transmission and Transaxles 4

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

### Requirements for Certificate: 17 Units

- **AT 100** Technical Basics for the Automotive Professional 2
- **AT 110** Automotive Brakes 4
- **AT 145** Automotive Exhaust System 4
- **AT 180** Automotive Data Acquisition 3
- **AT 311** Suspension and Steering Systems 4

### AT 10 General Automotive Maintenance 2 Units
**Hours:** 18 hours LEC; 54 hours LAB
Familiarization with hand tools, safety and the proper maintenance procedures for today's high tech automobiles. Topics covered are oil changing, belt replacement and tension, hose replacement, fluid level checks, brake inspection, tire changing, jump starting, minor tune-up, and emergency road repair operations.

### 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.  
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 are 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, color adjustment 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.  
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 meets 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 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 I/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 Diagnostic (OBD) systems. Instruction will include a history of OBD systems, computer diagnostics, government and Society of Automotive Engineers (SAE) regulations, OBDII diagnostics, monitors and reference information. This is a Bureau of Automotive Repair approved course.

AT 176  Bureau of Automotive Repair (BAR) Emissions Update .5-1.5 Units
Prerequisite: AT 321 or 324 with a grade of “C” or better; Current California State smog license.
Hours: 9-27 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  Computerized Auto Shop Technical Manuals 3 Units
Hours: 54 hours LEC
This course covers all aspects of automotive data retrieval and usage including location and using online technical manuals, CDROM-based technical manuals, and text-based technical manuals. Computer-based repair order generation, usage, and technical writing skills as well as computerized automotive shop management systems are included.

AT 190  Advanced Student Projects 2 Units
Prerequisite: Must have a grade of “C” or better in the Automotive Technology major.
Hours: 108 hours LAB
Opportunity for students to pursue advanced projects which are selected by the department. May be taken twice for credit.

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.
<table>
<thead>
<tr>
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<th>Course Title &amp; Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 203</td>
<td>ASE A-3 Manual Drive Trains and Axles Test Preparation</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>AT 204</td>
<td>ASE A-4 Suspension and Steering Test Preparation</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>AT 205</td>
<td>ASE A-5 Brakes Test Preparation</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>AT 206</td>
<td>ASE A-6 Electrical/Electronic Systems Test Preparation</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>AT 207</td>
<td>ASE A-7 Heating &amp; Air Conditioning Test Preparation</td>
<td>.5</td>
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<td></td>
<td>This nine-hour course will help prepare students for the ASE (Automotive Service Excellence) A-7 Heating &amp; Air Conditioning examination by reviewing ASE-style test questions and heating &amp; air conditioning information. Credit/No Credit only. This course may be taken four times.</td>
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<tr>
<td>AT 208</td>
<td>ASE A-8 Engine Performance Test Preparation</td>
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<td></td>
<td>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.</td>
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<tr>
<td>AT 209</td>
<td>ASE L-1 Advanced Engine Performance Specialist Test Preparation</td>
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<td>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.</td>
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<tr>
<td>AT 210</td>
<td>Advanced Automatic Transmission and Transaxle</td>
<td>4</td>
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<td></td>
<td>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, troubleshooting, and repair of vibration problems, advanced scan tool operation, and dynamometer testing.</td>
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<tr>
<td>AT 251</td>
<td>Automotive Electronic Accessories and Installation</td>
<td>2</td>
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<td></td>
<td>Same As: ET 251 Hours: 27 hours LEC; 27 hours LAB This course covers the electrical principles and processes involved in the installation of stereo sound, alarm and other entertainment, electrical and electronic systems and components. Installation safety, circuit diagrams, inspection, and wiring techniques are covered along with installation techniques of fiber optics, Global Positioning (GPS), and other related systems. Steps for acquiring the Mobile Electronics Certified Professional (MECP) certification are covered to complete the course content. A field trip is required. This course is not open to students who have taken the ET 251 course.</td>
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<tr>
<td>AT 294</td>
<td>Topics in Automotive Technology - New and Emerging Occupations</td>
<td>.5-5</td>
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<td></td>
<td>Prerequisite: To be determined for each topic. Hours: 9-90 hours LEC; 27-270 hours LAB Individualized course developed in cooperation with industry to meet specialized training needs.</td>
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<tr>
<td>AT 298</td>
<td>Work Experience in Automotive Technology</td>
<td>1-4</td>
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<td></td>
<td>Hours: 18-72 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.</td>
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<tr>
<td>AT 301</td>
<td>Small Gas Engines</td>
<td>2</td>
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<td></td>
<td>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 small gas engines as they pertain to the automotive and horticulture industries. This course is not open to students who have taken HORT 330.</td>
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<tr>
<td>AT 310</td>
<td>Heating and Air-Conditioning Systems</td>
<td>4</td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
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</tbody>
</table>
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 fundamentals 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 a grade of “C” or better.  
Course Transferable to CSU  
Hours: 108 hours LEC; 324 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. Also included is extensive troubleshooting with use of hand-held test equipment, lab oscilloscopes, scanners, digital storage oscilloscopes (DSO) and 4- and 5-gas analyzers. It meets Automotive Service Excellence (ASE) A8 and completes 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: 108 hours LEC; 324 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. Course includes Bureau of Automotive Repair (BAR) Basic Area Clean Air Course, Enhanced Area Clean Air Course, and BAR Update Courses.

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.

AT 324 Enhanced Area Clean Air Car 2 Units  
Prerequisite: AT 323 or a Basic Technician Smog Check License.  
Course Transferable to CSU  
Hours: 36 hours LEC  
This course covers advanced emission testing, service, and repairs for Enhanced Areas of the state of California. Instruction will include the latest in automotive technologies that may affect emissions testing, diagnosis, or repair such as NOX, Digital Storage Oscilloscopes (DSO) usage, sensor waveforms, diagnostic flowcharts, and catalytic converters. Also included are the 8 hours of training required by the Bureau of Automotive Repair (BAR) for transition to loaded mode testing for enhanced emission control areas (BAR 97). All smog check technicians who wish to obtain the Enhanced Emission Specialist license must complete this training.
**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**

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<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
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<td>BIOL 310</td>
<td>General Biology</td>
<td>4 - 5</td>
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<td>or BIOL 400</td>
<td>Principles of Biology</td>
<td>4</td>
</tr>
<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>
</tr>
<tr>
<td>BIOT 307</td>
<td>Biotechnology and Society</td>
<td>2</td>
</tr>
<tr>
<td>BIOT 315</td>
<td>Methods in Biotechnology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry</td>
<td>5</td>
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<td>5</td>
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<tr>
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<tr>
<td>or CHEM 401</td>
<td>General Chemistry</td>
<td>5</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</td>
<td>3</td>
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<tr>
<td>ENGWR 301</td>
<td>College Composition and Literature</td>
<td>3</td>
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<tr>
<td>or ENGWR 302</td>
<td>Advanced Composition and Critical Thinking</td>
<td>1</td>
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<tr>
<td>or ENGWR 342</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
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<tr>
<td>STAT 301</td>
<td>Introduction to Probability and Statistics</td>
<td>3</td>
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<tr>
<td>And a minimum of 2 units from the following:</td>
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<td>2</td>
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<tr>
<td>BIOT 498</td>
<td>Work Experience in Biotechnology (1 - 4)</td>
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<tr>
<td>and BIOT 305</td>
<td>Introduction to Bioinformatics (1)</td>
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<tr>
<td>or BIOT 310</td>
<td>Polymerase Chain Reaction (PCR) Methods</td>
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**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**

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</tr>
<tr>
<td>MATH 120</td>
<td>Intermediate Algebra</td>
<td>5</td>
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And a minimum of 1 unit from the following:

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<td>Introduction to Bioinformatics</td>
<td>1</td>
</tr>
<tr>
<td>BIOT 307</td>
<td>Biotechnology and Society</td>
<td>1</td>
</tr>
<tr>
<td>BIOT 498</td>
<td>Work Experience in Biotechnology (1 - 4)</td>
<td></td>
</tr>
</tbody>
</table>

**BiO102 Introduction to Concepts of Human Anatomy and Physiology**

**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.

**BiO115 Basic Anatomy and Physiology**

**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. BIOL 115 and 116 compose a complete study of the basic anatomy and physiology of the human body.

**BiO116 Basic Anatomy and Physiology**

**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 technologies. It covers body organization, basic chemistry, cells, and tissues. In addition, BIOL 116 covers respiratory, digestive, urinary, endocrine, and
reproductive systems. Either BIOL 115 OR 116 may be taken first, however, both courses are necessary for a complete study of human anatomy and physiology

**BIOL 117  Basic Anatomy and Physiology Lab  1 Unit**
Corequisite: BIOL 115.
Hours: 54 hours LAB
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 technicians. This course is not acceptable in registered nursing and respiratory care programs.

**BIOL 118  Basic Anatomy and Physiology Laboratory  1 Unit**
Corequisite: BIOL 116.
Hours: 54 hours LAB
This course is an optional 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 technologies. It is not acceptable in most nursing and respiratory care programs.

**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 sanitization, 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 included are 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 native vascular plants of California. Plant keys and principles of taxonomy are stressed to develop proficiency in identification of plant species. This course covers some of society's historical uses of native plants. Frequent field trips and a plant collection are required.

**BIOL 322  Ethnobotany  3 Units**
General Education: AA/AS Area VI
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
The focus of this introductory course is the multicultural use of plants. Emphasis is on the identification and use of plants from several cultures including the American Indians, Europeans, South Americans, and Chinese. Topics include the use of plants for food, medicine, basketry, technology, shelter, and music. Sight recognition and plant use will be emphasized. An analysis of ethnicity and ethnocentrism is included.

**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 332  Introduction to Ornithology  2 Units**
Course Transferable to CSU
Hours: 18 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 family traits and common local species is accomplished by means of taxonomy and field study.
BIOL 342  The New Plagues: New and Ancient Infectious Diseases Threatening World Health  3 Units
General Education: CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the biology, epidemiology, and pathology of selected pathogens such as prions, viruses, bacteria, protozoa, and helminthes that threaten public health on a global scale. It explores the interaction between human behavior and disease agents on the emergence of new infectious agents and the re-emergence of ancient plagues.

BIOL 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  .5-4 Units
Course Transferable to CSU
Hours: 3-24 hours LEC; 18-144 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: ENGLR 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 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 or two field trips per semester are 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
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.
BION 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; 108 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.

BION 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.

BION 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.

BION 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 physique 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.

BION 480 Biology/Chemistry Honors Seminar 1 Unit
Same As: CHEM 482
Prerequisite: Cumulative GPA of 3.0 or above; CHEM 400 and BION 400 with a grade of “C” or better; ENGR 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.

BION 482 Honors Introduction to Marine Environment 4 Units
Prerequisite: Cumulative GPA of 3.0 or above; ENGR 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 BION 370.

BION 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: BION 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: BION 310 or 400 with a grade of “C” or better.
Advisory: BIOT 300 and CISC 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 application 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.*  
*Course Transferable to CSU*  
*Hours: 9 hours LEC; 27-60 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.

Requirements for Degree 37 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 301 Fundamentals of College Accounting</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or ACCT 301 Fundamentals of College Accounting</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or BUS 300 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 330 Business Law (3)</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 345 Law and Society (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 305 Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 315 Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>ECON 302 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 304 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 340 Calculus for Business and Economics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 342 Modern Business Mathematics (3)</td>
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<tr>
<td>STAT 301 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>Units</th>
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</thead>
<tbody>
<tr>
<td>ACCT 334 Computer Spreadsheet Applications for Accounting (2)</td>
<td></td>
</tr>
<tr>
<td>or ACCT 341 Accounting on the Microcomputer (2)</td>
<td></td>
</tr>
<tr>
<td>or BUS 320 Concepts in Personal Finance (3)</td>
<td></td>
</tr>
<tr>
<td>BUS 330 Managing Diversity in the Workplace (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 318 Exploring Spreadsheet Software (1)</td>
<td></td>
</tr>
<tr>
<td>CISA 320 Introduction to Database Management (1)</td>
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</tr>
<tr>
<td>CISA 330 Desktop Publishing (2)</td>
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</tr>
<tr>
<td>CIS C 308 Exploring Computer Environments and the Internet (1)</td>
<td></td>
</tr>
<tr>
<td>CIS C 350 Introduction to Data Communications (1)</td>
<td></td>
</tr>
<tr>
<td>or CISC 305 Introduction to the Internet (1)</td>
<td></td>
</tr>
<tr>
<td>MGMT 304 Introduction to Management Functions (3)</td>
<td></td>
</tr>
<tr>
<td>or MGMT 300 Introduction to Modern Management (3)</td>
<td></td>
</tr>
<tr>
<td>MKT 300 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.

Requirements for Certificate 24-25 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101 Fundamentals of College Accounting</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or ACCT 301 Fundamentals of College Accounting</td>
<td>3 - 4</td>
</tr>
<tr>
<td>BUS 105 Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 110 Business Economics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 302 Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>BUS 300 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 330 Managing Diversity in the Workplace</td>
<td></td>
</tr>
<tr>
<td>BUS 340 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 345 Law and Society (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 305 Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 315 Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>MGMT 304 Introduction to Management Functions</td>
<td>3</td>
</tr>
<tr>
<td>or MKT 300 Principles of Marketing</td>
<td></td>
</tr>
</tbody>
</table>

And a minimum of 9 units from the following: 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS courses not used to fulfill other requirements for the degree</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>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101 Fundamentals of College Accounting</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or ACCT 301 Fundamentals of College Accounting</td>
<td>3 - 4</td>
</tr>
<tr>
<td>BUS 105 Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 110 Business Economics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 302 Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>BUS 300 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 330 Managing Diversity in the Workplace</td>
<td></td>
</tr>
<tr>
<td>BUS 340 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 345 Law and Society (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 305 Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 315 Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>MGMT 304 Introduction to Management Functions</td>
<td>3</td>
</tr>
<tr>
<td>or MKT 300 Principles of Marketing</td>
<td></td>
</tr>
</tbody>
</table>

And a minimum of 5 units from the following: 5

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 210 The Business Plan (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 212 Marketing for Small Businesses (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 214 Financing a Small Business (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 216 Essential Records for the Small Business (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 218 Management Skills for the Small Business (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 224 Customer Service (1)</td>
<td></td>
</tr>
<tr>
<td>BUS 330 Managing Diversity in the Workplace</td>
<td></td>
</tr>
<tr>
<td>BUS 350 Small Business Management/Entrepreneurship (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 305 Beginning Word Processing (2)</td>
<td></td>
</tr>
</tbody>
</table>
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>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>3</td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Mathematics</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 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</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 362</td>
<td>Techniques of Management</td>
<td>3</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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 341</td>
<td>Accounting on the Microcomputer</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 343</td>
<td>Computer Spreadsheet Applications for Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 305</td>
<td>Introduction to Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>

One or more Computer Information Science courses

And a minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 210</td>
<td>The Business Plan</td>
<td>3</td>
</tr>
<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses</td>
<td>1</td>
</tr>
<tr>
<td>BUS 214</td>
<td>Finacing 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 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 224</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>BUS 226</td>
<td>Loss Prevention and Security</td>
<td>1</td>
</tr>
<tr>
<td>BUS 228</td>
<td>Selling Techniques for the Small Business</td>
<td>1</td>
</tr>
</tbody>
</table>

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>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>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>
<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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 121</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 341</td>
<td>Accounting on the Microcomputer</td>
<td>2</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 224</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>BUS 226</td>
<td>Loss Prevention and Security</td>
<td>1</td>
</tr>
<tr>
<td>BUS 228</td>
<td>Selling Techniques for the Small Business</td>
<td>1</td>
</tr>
<tr>
<td>MKT 312</td>
<td>Retailing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 314</td>
<td>Advertising</td>
<td>3</td>
</tr>
</tbody>
</table>

Any CIS course
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 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 226  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 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® for Small Business  1 Unit
Same As: ACCT 141.
Advisory: ENGWR 102 or ENGRD 116 or ESLR 320 and ESLW 320; BUS 350.
Hours: 18 hours LEC
This class will emphasize the use of QuickBooks® to aid the small business operator 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 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 294  Topics in Business  .5-4 Units  
Advisory: ENGWR 51 and ENGRD 15, or ESLR 310 and ESLW 310. 
Hours: 0-54 hours LEC; 0-108 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 III(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 experience/perspectives related to gender, age, ethnicity, and disability. Workplace issues related to the diversity of the American consumer and global consumer impact on the United States are analyzed.

BUS 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 viewpoint through analysis of selected cases and reading materials. Not to be taken in place of BUS 340 (Business Law) where required. 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. 
Course Transferable to CSU 
Hours: 18-72 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>Degree</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Assistant</td>
<td>37-38 Units</td>
</tr>
</tbody>
</table>

<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>
<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>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 126</td>
<td>Outlook: Basics (1)</td>
<td>1</td>
</tr>
<tr>
<td>or CISA 126</td>
<td>Outlook: Basics (1)</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 127</td>
<td>Outlook: Tools (1)</td>
<td>1</td>
</tr>
<tr>
<td>or CISA 127</td>
<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 322</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>or 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></td>
<td></td>
</tr>
<tr>
<td>BUSTEC 301</td>
<td>Intermediate Keyboarding/Application</td>
<td>1 - 3</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td></td>
<td></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 Administrative Assistant Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

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.

Requirements for Certificate

<table>
<thead>
<tr>
<th>Certificate</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Assistant</td>
<td>20-22 Units</td>
</tr>
</tbody>
</table>

<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>
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<td></td>
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<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>1</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</td>
<td>2</td>
</tr>
<tr>
<td>or CISA 320</td>
<td>Introduction to Database Management</td>
<td>1 - 2</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></td>
<td></td>
</tr>
<tr>
<td>BUSTEC 301</td>
<td>Intermediate Keyboarding/Application</td>
<td>1 - 3</td>
</tr>
<tr>
<td>And a minimum of 2 units from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSTEC 310</td>
<td>Introduction to Word/Information Processing</td>
<td>1 - 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>Certificate</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law Office Assistant</td>
<td>12-16 Units</td>
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</tbody>
</table>

<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>BUS 100</td>
<td>Keyboarding Skills</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>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.

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
ACCT 101  Fundamentals of College Accounting (3)  3 - 4  
or ACCT 301  Financial Accounting (4) 
BUS 300  Introduction to Business  3  
BUS 310  Business Communications  3  
BUSTEC 101  Computer Keyboarding: 10-Key  1  
BUSTEC 110  Business Procedures for Professional Success  3  
BUSTEC 126  Outlook: Basics (1)  1  
or CISA 126  Outlook: Basics (1)  1  
BUSTEC 127  Outlook: Tools (1)  1  
or CISA 127  Outlook: Tools (1)  1  
BUSTEC 305  Introduction to Office Technology  1  
BUSTEC 313  Presentations for the Business Professional  2  
BUSTEC 332  Integrated Business Projects  3  
And a minimum of 2 units from the following:  2  
BUSTEC 300  Beginning Keyboarding/Applications (1 - 3) 
And a minimum of 3 units from the following:  3  
BUSTEC 301  Intermediate Keyboarding/Application (1 - 3) 
And a minimum of 3 units from the following:  3  
BUSTEC 310  Introduction to Word/Information Processing (1 - 3) 

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

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
ACCT 101  Fundamentals of College Accounting (3)  3 - 4  
or ACCT 301  Financial Accounting (4)  
BUS 101  English for the Professional  3  
BUSTEC 101  Computer Keyboarding: 10-Key  1  
BUSTEC 105  Introduction to Office Technology  1  
or CISA 105  Introduction to Office Technology  1  
BUSTEC 110  Business Procedures for Professional Success  3  
BUSTEC 122  Workplace Behavior and Communication Technologies  3  
BUSTEC 126  Outlook: Basics (1)  1  
or CISA 126  Outlook: Basics (1)  1  
BUSTEC 127  Outlook: Tools (1)  1  
or CISA 127  Outlook: Tools (1)  1  
BUSTEC 305  Introduction to Office Technology  1  
BUSTEC 310  Introduction to Word/Information Processing (1 - 3) 
And a minimum of 2 units from the following:  2  
BUSTEC 300  Beginning Keyboarding/Applications (1 - 3) 
And a minimum of 3 units from the following:  3  
BUSTEC 301  Intermediate Keyboarding/Application (1 - 3) 
And a minimum of 3 units from the following:  3  
BUSTEC 310  Introduction to Word/Information Processing (1 - 3) 

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
BUSTEC 125  Office Assistant Training  7  

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 associate, office clerk, office manager, and office support.

Requirements for Certificate  23 Units
BUS 100  English for the Professional  3  
BUSTEC 101  Computer Keyboarding: 10-Key  1  
BUSTEC 122  Workplace Behavior and Communication Technologies  3  
BUSTEC 126  Outlook: Basics (1)  1  
or CISA 126  Outlook: Basics (1)  1  
BUSTEC 305  Introduction to Office Technology  1  
BUSTEC 330  Introduction to Business (1 - 3) 
And a minimum of 3 units from the following:  3  
BUSTEC 300  Beginning Keyboarding/Applications (1 - 3) 
And a minimum of 2 units from the following:  2  
BUSTEC 310  Introduction to Word/Information Processing (1 - 3) 
CISA 305  Beginning Word Processing (2)  
And a minimum of 4 units from the following:  4  
BUSTEC 100  Keyboarding Skills (1 - 3) 
BUSTEC 127  Outlook: Tools (1)  
or CISA 127  Outlook: Tools (1)  
CISA 315  Introduction to Electronic Spreadsheets (2)  
CISA 320  Introduction to Database Management (1)  
CISA 340  Presentation Graphics (2)  
CISC 305  Introduction to the Internet (1)  
CISC 320  Operating Systems (1)  

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.
BUS 100 English for the Professional (3)   3
requires evidence of completion of the CPS or CAP certification.

Certified Administrative Professional (CAP) may receive credit for this option with

1 Unit

BUSTEC 300  Beginning Keyboarding/Applications    1 - 3
BUSTEC 110  Business Procedures for Professional Success  3
BUSTEC 126  Outlook: Basics (1)  1
or CISA 126  Outlook: Basics (1)
BUSTEC 127  Outlook: Tools (1)  1
or CISA 127  Outlook: Tools (1)
BUSTEC 305  Introduction to Office Technology
BUSTEC 332  Integrated Business Projects  3
And a minimum of 2 units from the following:
BUSTEC 300  Beginning Keyboarding/Applications (1 - 3)
And a minimum of 3 units from the following:
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
BUS 100  English for the Professional (3)
BUSTEC 110  Business Procedures for Professional Success (3)
or CISA 122  Workplace Behavior and Communication Technologies (3)
BUSTEC 127  Outlook: Tools (1)
or CISA 127  Outlook: Tools (1)
BUSTEC 300  Beginning Keyboarding/Applications 1 - 3
BUSTEC 350  Virtual Office Careers and Technologies  3
BUSTEC 332  Integrated Business Projects  3
CISA 320  Introduction to Database Management (1)
or CISC 306  Introduction to Web Page Creation (1)

1Individuals 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.

BUSTEC 100 Keyboarding Skills 1-3 Units
Advisory: BUSTEC 300; or ability to touch type.

Hours: 12-36 hours LEC; 18-54 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. Ten-key certification testing is completed at the end of the course.

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 ENGWR 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 Assistant Training 7 Units
Advisory: ENGWR 102 or ENGRD 103 and ENGRD 116 or ESLR 320 and ESLW 320.

Hours: 96 hours LEC; 90 hours LAB
This course combines the skills needed for office assistant positions into one program. The content includes computer keyboarding, word processing, and spreadsheet programs; alphabetic filing; 10-key skill development to 10,000+ keystrokes/hour; office procedures and communications, including telephone, mail, e-mail, and Internet; human relations; and employment resources. This course may be offered as a short-term, fast-track program. Certificates are granted upon successful completion of all course segments.
BUSTEC 126  Outlook: Basics  
1 Unit  
Same As: CISA 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, BUSTEC 126/CISA 126 and BUSTEC 127/CISA 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 CISA 126.

BUSTEC 127  Outlook: Tools  
1 Unit  
Same As: CISA 127  
Advisory: BUSTEC 300  
Hours: 18 hours LEC  
This Outlook course presents the communication tools beyond basic email. Topics include calendar and scheduling, recording 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. Additionally, BUSTEC 126/CISA 126 and BUSTEC 127/CISA 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 CISA 127.

BUSTEC 300  Beginning Keyboarding/Applications  
1-3 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 CSU  
Hours: 12-36 hours LEC; 18-54 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 301  Intermediate Keyboarding/Application  
1-3 Units  
Prerequisite: BUSTEC 300 with a grade of “C” or better.  
Course Transferable to CSU  
Hours: 12-36 hours LEC; 18-54 hours LAB  
This course develops computer keyboarding, word processing, and document production skills. Formatting applications include business correspondence and reports, tables and charts, form templates, flyers, newsletters, and in-basket projects. Students may enroll up to the twelfth week. Credit is based on the number of modules 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: 12-36 hours LEC; 18-54 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 311  Advanced Word/Information Processing  
3 Units  
Prerequisite: BUSTEC 305 and 310 (3 units) with a grade of “C” or better.  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
Provides training on advanced word/information processing functions. Stresses improvement of skill in organizing and producing correspondence, manuscripts, reports, and tabulations. Strengthens formatting, language arts, composition, and decision-making skills using the microcomputer.

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.

**CHEM 130  Chemistry for Funeral Services  4 Units**
Prerequisite: MATH 100 with a grade of “C” or better
Advisory: ENGRD 116 or ESLW 330 with a grade of “C” or better; OR placement through assessment process.
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
This course is a survey of the basic principles of chemistry as they relate to Funeral Services. Especially stressed are the chemical principles involved in sanitation, disinfection, public health and embalming practices. The development and use of personal, professional and community sanitation practices are covered as well as use and precautions related to potentially harmful chemicals that are currently used in the field of funeral services.

**CHEM 305  Introduction to Chemistry  5 Units**
Prerequisite: MATH 100 with a grade of “C” or better
Advisory: ENGRD 116 or ESLW 330 with a grade of “C” or better; OR placement through assessment process.
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 general principles of chemistry such as unit analysis, atomic structure, nomenclature, mole concept, stoichiometry and gases. A brief introduction of organic chemistry and biochemistry is provided. It is primarily designed for most general education and allied health majors.

**CHEM 306  Introduction to Chemistry  5 Units**
Prerequisite: CHEM 305 with a grade of “C” or better.
Advisory: ENGRD 116 or ESLW 330 with a grade of “C” or better; OR placement through assessment process.
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
This course is a continuation of CHEM 305. It covers the organic functional groups and reactions involved in the chemistry of life (biochemistry), as applied to the health sciences. (CAN CHEM 8); (CHEM SEQ B Sum of CHEM 305 and 306).

**CHEM 309  Survey of General, Organic, and Biological Chemistry  5 Units**
Prerequisite: MATH 100 with a grade of “C” or better
Advisory: ENGRD 116, ENGRD 102, ESLR 320, ESLW 330, and MATH 120; or placement through the assessment process.
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3
Course Transferable to UC/CSU
Hours: 72 hours LEC; 54 hours LAB
This course is a one-semester survey of general, organic, and biological chemistry for nursing majors and other health-related fields. Topics include general chemistry, organic chemistry, and biological chemistry as they apply to chemistry of the human body. This course satisfies the requirements of those health-career programs which require one semester of chemistry.

**CHEM 310  Chemical Calculations  4 Units**
Prerequisite: MATH 100 with a grade of “C” or better
Corequisite: MATH 120
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an introduction to chemical calculations, terminology, chemical concepts and laboratory techniques. It is designed for those who will take CHEM 400 and need intensive preparation in problem solving.

**CHEM 320  Environmental Chemistry  4 Units**
Prerequisite: MATH 32 with a grade of “C” or better.
Corequisite: ENGRD 116 or ESLR 320; or placement through assessment process.
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers some basic principles of chemistry and their applications to our environment. It includes topics related to the chemistry of water, air, consumer products, and living systems. The laboratory is designed to familiarize students with the methods of science while investigating the presence and interactions of chemicals in the environment.

**CHEM 325  Pollution, Poisons, and Planet Earth  4 Units**
Advisory: MATH 32; ENGRD 116 or ESLR 320
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3
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 334  Chemistry in the Kitchen  3 Units**
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.
**CHEM 400 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: 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 B1; CSU Area B3; IGETC Area 5A  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 108 hours LAB  
This course covers the basic principles of chemistry with an emphasis on chemical calculations, chemical reactions including balancing of complicated redox reactions, stoichiometry, gas laws, thermochemistry, atomic structure and bonding theories, ionic equations, solutions, intermolecular forces and phases of matter and acid/base chemistry including titrations and pH. Laboratory work is devoted to investigations of the theoretical work discussed in lecture.

**CHEM 401 General Chemistry 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 420 or 423.  
Advisory: CHEM 420 or 423.  
Course Transferable to UC/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, thermochemistry, electrophilic and nucleophilic substitutions, complexes, and spectroscopy.

**CHEM 480 Honors General Chemistry 1 Unit**  
Prerequisite: CHEM 400 with a grade of “C” or better; ENGW 300 with a grade of “C” or better or honors placement on the ENGW assessment; GPA of 3.0 or better.  
Corequisite: CHEM 401.  
Course Transferable to UC/CSU  
Hours: 18 hours LEC  
This honors course provides advanced studies for general chemistry students. It involves in-depth discussion and analysis of recent scientific articles in terms of general chemical principles.

**CHEM 482 Biology/Chemistry Honors Seminar 1 Unit**  
Same As: BIOL 480  
Prerequisite: Cumulative GPA of 3.0 or above; CHEM 400 and BIOL 400 with a grade of “C” or better; ENGW 300 or 480 with a grade of “C” or better.  
Course Transferable to UC  
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 BIOL 480. May be taken two times for credit.
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 coursework in mathematics as is required by most university computer science programs.

Requirements for Degree 36 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
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<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 track:

- Microsoft Windows networking concentration, focusing on preparing for the Microsoft Certified Systems Engineer (MCSE) and/or the Microsoft Certified Systems Administrator (MCSE) 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</th>
<th>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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<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
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<tr>
<td>or BUS 300</td>
<td>Introduction to Business (3)</td>
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</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGWR 300</td>
<td>College Composition (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>CISC 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CISC 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 350</td>
<td>Introduction to Data Communications</td>
<td>1</td>
</tr>
<tr>
<td>CISC 361</td>
<td>Microcomputer Support and Repair</td>
<td>3</td>
</tr>
<tr>
<td>CISS 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 1 unit from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSTEC 300</td>
<td>Beginning Keyboarding/Applications (1 - 3)</td>
<td>1</td>
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</table>

And a minimum of 5 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<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></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></td>
</tr>
<tr>
<td>CISA 160</td>
<td>Project Management Techniques and Software (3)</td>
<td>3</td>
</tr>
</tbody>
</table>
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 (MCSE) 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**
- CIS 323 Linux Operating System
- CIS 350 Introduction to Data Communications
- CIS 361 Microcomputer Support And Repair
- CIS 310 Network Security Fundamentals

**CISCO Concentration**

**21 Units**
- CIS 324 Intermediate Linux Operating System
- CISN 110 Networking Technologies - Preparation for N+ Certification
- CISN 111 Intermediate Networking Technologies - Preparation for N+ Certification
- CISN 119 TCP/IP Protocols
- CISN 140 Cisco Networking Academy (CCNA): Data Communication and Networking Fundamentals
- CISN 141 Cisco Networking Academy (CCNA): Networking Theory and Routing Technologies
- CISN 142 Cisco Networking Academy (CCNA): Advanced Routing and Switching
- CISN 143 Cisco Networking Academy (CCNA): Wide Area Network and Project-Based Learning

**And a minimum of 3 units from the following:**
- CISA 405 Scripting for Applications
- CISP 453 Introduction to Systems Programming in UNIX
- CISS 325 Network Security and Firewalls

**LINUX Concentration**

**23 Units**
- CIS 324 Intermediate Linux Operating System
- CISN 300 Network Systems Administration
- CISN 302 Intermediate Network Systems Administration
- CISN 307 Windows Active Directory Services
- CISN 308 Internetworking with TCP/IP
- or CISN 119 TCP/IP Protocols

**And a minimum of 3 units from the following:**
- CISP 400 Object Oriented Programming with C++
- CISP 453 Introduction to Systems Programming in UNIX
- CISS 342 Implementing Linux Operating System Security

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 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

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science</td>
</tr>
<tr>
<td>CISP 453</td>
<td>Introduction to Systems Programming in UNIX</td>
</tr>
<tr>
<td>or CISA 321</td>
<td>Intermediate Database Management (1)</td>
</tr>
<tr>
<td>and CISP 350</td>
<td>Database Programming (3)</td>
</tr>
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</table>

C++ Concentration

<table>
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<tr>
<th>Requirement</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
</tr>
<tr>
<td>CISP 360</td>
<td>Introduction to Structured Programming</td>
</tr>
<tr>
<td>CISP 400</td>
<td>Object Oriented Programming with C++</td>
</tr>
<tr>
<td>CISP 430</td>
<td>Data Structures</td>
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Cobol Concentration

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<tr>
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<th>Units</th>
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<tbody>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
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<tr>
<td>CISP 320</td>
<td>COBOL Programming</td>
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<tr>
<td>CISP 321</td>
<td>Advanced COBOL Programming</td>
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<tr>
<td>CISP 457</td>
<td>Computer Systems Analysis and Design</td>
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</table>

Java Concentration

<table>
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<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
</tr>
<tr>
<td>CISP 360</td>
<td>Introduction to Structured Programming</td>
</tr>
<tr>
<td>CISP 401</td>
<td>Object Oriented Programming with Java</td>
</tr>
<tr>
<td>CISP 457</td>
<td>Computer Systems Analysis and Design</td>
</tr>
</tbody>
</table>

Visual Basic Concentration

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<th>Requirement</th>
<th>Units</th>
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<tbody>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
</tr>
<tr>
<td>CISP 370</td>
<td>Beginning Visual Basic</td>
</tr>
<tr>
<td>CISP 371</td>
<td>Intermediate Visual Basic</td>
</tr>
<tr>
<td>CISP 457</td>
<td>Computer Systems Analysis and Design</td>
</tr>
</tbody>
</table>

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, electronic spreadsheets and a variety of introductory business courses.

Requirements for Degree

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
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<tbody>
<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</td>
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<tr>
<td>BUS 110</td>
<td>Business Economics (3)</td>
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<tr>
<td>or ECON 302</td>
<td>Principles of Macroeconomics (3)</td>
</tr>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications (3)</td>
</tr>
<tr>
<td>or ENGWR 300</td>
<td>College Composition (3)</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management</td>
</tr>
<tr>
<td>CISA 321</td>
<td>Intermediate Database Management</td>
</tr>
<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science</td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
</tr>
<tr>
<td>CISP 350</td>
<td>Database Programming</td>
</tr>
<tr>
<td>CISP 370</td>
<td>Beginning Visual Basic</td>
</tr>
<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
</tr>
<tr>
<td>CISW 410</td>
<td>Middleware Web Scripting</td>
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</table>

Requirements for Certificate

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management</td>
</tr>
<tr>
<td>CISA 321</td>
<td>Intermediate Database Management</td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
</tr>
<tr>
<td>CISP 350</td>
<td>Database Programming</td>
</tr>
<tr>
<td>CISP 370</td>
<td>Beginning Visual Basic</td>
</tr>
<tr>
<td>CISW 300</td>
<td>Web Publishing</td>
</tr>
<tr>
<td>CISW 410</td>
<td>Middleware Web Scripting</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
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<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
</tr>
<tr>
<td>CISA 306</td>
<td>Intermediate Word Processing</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
</tr>
<tr>
<td>CISA 316</td>
<td>Intermediate Electronic Spreadsheets</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management</td>
</tr>
<tr>
<td>CISA 321</td>
<td>Intermediate Database Management</td>
</tr>
<tr>
<td>CISA 330</td>
<td>Desktop Publishing</td>
</tr>
</tbody>
</table>
### CIS: Microcomputer Applications Certificate

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

<table>
<thead>
<tr>
<th>Requirements for Certificate</th>
<th>24 Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 330</td>
<td>Business Communications 3</td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing 2</td>
</tr>
<tr>
<td>CISA 306</td>
<td>Intermediate Word Processing 2</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets 2</td>
</tr>
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<td>CISA 316</td>
<td>Intermediate Electronic Spreadsheets 2</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management 1</td>
</tr>
<tr>
<td>CISA 321</td>
<td>Intermediate Database Management 1</td>
</tr>
<tr>
<td>CISA 330</td>
<td>Desktop Publishing 2</td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics 2</td>
</tr>
<tr>
<td>CISA 395</td>
<td>Introduction to the Internet 1</td>
</tr>
<tr>
<td>CISA 366</td>
<td>Introduction to Web Page Creation 1</td>
</tr>
<tr>
<td>CISA 370</td>
<td>Introduction to Computer Information Science 3</td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems 1</td>
</tr>
<tr>
<td>CISC 350</td>
<td>Introduction to Data Communications 1</td>
</tr>
</tbody>
</table>

*Taken on the Windows operating system.

### 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 components, 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 | 24 Units
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 310</td>
<td>Business Communications 3</td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing 2</td>
</tr>
<tr>
<td>CISA 310</td>
<td>Introduction to Computer Information Science 3</td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems 1</td>
</tr>
<tr>
<td>CISC 350</td>
<td>Introduction to Data Communications 1</td>
</tr>
<tr>
<td>CISC 351</td>
<td>Introduction to Local Area Networks 1</td>
</tr>
<tr>
<td>CISC 361</td>
<td>Microcomputer Support And Repair 3</td>
</tr>
<tr>
<td>CISC 362</td>
<td>Microcomputer and Applications Support 2</td>
</tr>
<tr>
<td>CISC 363</td>
<td>Advanced Microcomputer Support and Repair 2</td>
</tr>
<tr>
<td>CISW 301</td>
<td>Ethical Hacking 2</td>
</tr>
</tbody>
</table>

*Taken on the Windows operating system.

### CIS: PC Support Management Degree

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

### Requirements for Degree | 30 Units
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 300</td>
<td>Introduction to Business 3</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications 3</td>
</tr>
<tr>
<td>CISA 160</td>
<td>Project Management Techniques and Software 3</td>
</tr>
<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science 3</td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems 1</td>
</tr>
<tr>
<td>CISC 350</td>
<td>Introduction to Data Communications 1</td>
</tr>
<tr>
<td>CISC 351</td>
<td>Introduction to Local Area Networks 1</td>
</tr>
<tr>
<td>CISC 361</td>
<td>Microcomputer Support And Repair 3</td>
</tr>
<tr>
<td>CISC 362</td>
<td>Microcomputer and Applications Support 2</td>
</tr>
<tr>
<td>CISC 363</td>
<td>Advanced Microcomputer Support and Repair 2</td>
</tr>
<tr>
<td>CISW 301</td>
<td>Ethical Hacking 2</td>
</tr>
</tbody>
</table>

*Taken 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.

### 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.
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 several 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>CISP 110</td>
<td>Networking Technologies - Preparation for N+ Certification</td>
<td>2</td>
</tr>
<tr>
<td>CISP 111</td>
<td>Intermediate Networking Technologies - Preparation for N+ Certification</td>
<td>2</td>
</tr>
<tr>
<td>CISP 300</td>
<td>Network Systems Administration</td>
<td>3</td>
</tr>
<tr>
<td>CISP 302</td>
<td>Intermediate Network Systems Administration</td>
<td>3</td>
</tr>
<tr>
<td>CISP 307</td>
<td>Windows Active Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>CISP 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CISP 325</td>
<td>Network Security and Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CISP 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CISP 342</td>
<td>Implementing Linux Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>CISP 350</td>
<td>Disaster Recovery</td>
<td>3</td>
</tr>
<tr>
<td>CISP 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>CISP 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISP 324</td>
<td>Intermediate Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISP 300</td>
<td>Network Systems Administration</td>
<td>3</td>
</tr>
<tr>
<td>CISP 302</td>
<td>Intermediate Network Systems Administration</td>
<td>3</td>
</tr>
<tr>
<td>CISP 307</td>
<td>Windows Active Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>CISP 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CISP 325</td>
<td>Network Security and Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CISP 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CISP 342</td>
<td>Implementing Linux Operating System Security (3)</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>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 110</td>
<td>Networking Technologies - Preparation for N+ Certification (2)</td>
<td>2</td>
</tr>
<tr>
<td>CISP 111</td>
<td>Intermediate Networking Technologies - Preparation for N+ Certification (2)</td>
<td>2</td>
</tr>
<tr>
<td>CISP 140</td>
<td>CISCO Networking Academy (CCNA): Data Communication and Networking Fundamentals (3)</td>
<td>3</td>
</tr>
<tr>
<td>CISP 301</td>
<td>Ethical Hacking (2)</td>
<td>2</td>
</tr>
</tbody>
</table>

CIS: 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 7 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 310</td>
<td>Introduction to Computer Information Science</td>
<td>3</td>
</tr>
<tr>
<td>CISP 320</td>
<td>Operating Systems</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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
<td>3</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>
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</tbody>
</table>

Java Concentration Requirements 18 Units

Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
<td>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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 321</td>
<td>Intermediate Database Management</td>
<td>1</td>
</tr>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
<td>3</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>CISP 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CISP 325</td>
<td>Network Security and Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CISP 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CISP 342</td>
<td>Implementing Linux Operating System Security (3)</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>CISP 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CISP 325</td>
<td>Network Security and Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CISP 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CISP 342</td>
<td>Implementing Linux Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>CISP 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 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 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CISC 332</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 342</td>
<td>Intermediate Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISW 350</td>
<td>Database Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISW 370</td>
<td>Beginning Visual Basic</td>
<td>4</td>
</tr>
<tr>
<td>CISW 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>3-4</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 (3)</td>
<td></td>
</tr>
<tr>
<td>CISW 370</td>
<td>Designing Accessible Web Sites</td>
<td>1</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>
<tr>
<td>And a minimum of 4 units from the following:</td>
<td></td>
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<tr>
<td>CISW 405</td>
<td>ActionScript for Flash</td>
<td>3</td>
</tr>
<tr>
<td>CISW 410</td>
<td>Middleware Web 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>

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 20 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 320</td>
<td>Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CISC 332</td>
<td>Linux Operating System</td>
<td>1</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>3-4</td>
</tr>
<tr>
<td>or ARTNM 400</td>
<td>Imaging For The Web</td>
<td>1</td>
</tr>
<tr>
<td>CISW 370</td>
<td>Designing Accessible Web Sites</td>
<td>1</td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td></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>or CISW 365</td>
<td>Interactive Multimedia Basics</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 410</td>
<td>Interactive Multimedia Projects</td>
<td>4</td>
</tr>
<tr>
<td>or CISW 471</td>
<td>Interactive Multimedia Projects</td>
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</table>

Technical Communication Certificate

Requirements for Certificate 20.5-21.5 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISW 355</td>
<td>Web Imaging Projects</td>
<td>2</td>
</tr>
<tr>
<td>CISW 385</td>
<td>E-Commerce</td>
<td>3</td>
</tr>
<tr>
<td>CISW 442</td>
<td>Web Publishing with XML</td>
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<tr>
<td>or TAKEN on the Windows operating system</td>
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</table>

Technical Communication Degree

Requirements for Degree 35 Units

<table>
<thead>
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<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 (3)</td>
<td></td>
</tr>
<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>
<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>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>ENGWR 342</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGWR 344</td>
<td>Technical/Professional Communication: Writing Reports (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGWR 348</td>
<td>Technical/Professional Communication: Plain English (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGWR 350</td>
<td>Technical/Professional Communication: Proposal Writing (1.5)</td>
<td></td>
</tr>
<tr>
<td>ENGWR 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 6 units from the following:</td>
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</tr>
<tr>
<td>ENGWR 450</td>
<td>College Literary Magazine</td>
<td>3</td>
</tr>
<tr>
<td>ENGWR 330</td>
<td>Writing for Publication</td>
<td>3</td>
</tr>
<tr>
<td>ENGWR 331</td>
<td>Writing for Publication</td>
<td>3</td>
</tr>
<tr>
<td>ENGWR 354</td>
<td>Introduction to Careers in Technical Communication</td>
<td>1</td>
</tr>
<tr>
<td>ENGWR 356</td>
<td>Writing Formal Reports</td>
<td>1</td>
</tr>
<tr>
<td>ENGWR 358</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>
</tr>
<tr>
<td>And a minimum of 12 units from the following:</td>
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<td>12</td>
</tr>
<tr>
<td>ARTNM 324</td>
<td>Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 328</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>or 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>
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<tr>
<td>CISA 301</td>
<td>Advanced Web Publishing</td>
<td>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.
And a minimum of 6 units from the following:

- ARTNM 324 Digital Design (3)
- ARTNM 328 Digital Photo Imagery - Photoshop Basics (3)
- ARTNM 330 Intermediate Digital Photo Imagery (3)
- ARTNM 402 Intermediate Web Design (3)
- ARTNM 404 Interactive Multimedia Basics (3)
- CISA 340 Presentation Graphics (2)
- CISW 300 Web Publishing (3)
- CISW 310 Advanced Web Publishing (4)

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, 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: ENGRWR 102 or 103; and ENGRD 116; or ESLR 320 and ESLW 320; CIS 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: 9-72 hours LEC, 0-54 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.

CISA 405  Scripting for Applications  3 Units
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is an introduction to the application scripting via object oriented programming concepts. Topics covered include the OS environment; office suites; scripting languages; user interface; creating application macros and scripts; using application objects; properties and methods; customizing applications; linking application data; buttons; boxes; graphics; data handling; error handling; control; and form handling. This course may be taken four times with a different scripting language.

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: 9-72 hours LEC; 0-54 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 on different hardware platforms.
CISC 305  Introduction to the Internet  1 Unit
Advisory: CISC 300.
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
This course is an introduction to how the Internet works, how to connect, and how to use the basic services. Topics will include E-mail, the World Wide Web, newsgroups, mailing lists, Telnet, and FTP.

CISC 306  Introduction to Web Page Creation  1 Unit
Advisory: CISC 305.
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
This course covers the production of web pages, including design, layout, construction, and presentation. A web authoring tool is used to format a web page and Extensible HyperText Markup Language (XHTML) is introduced. This course may be taken four times for credit on a different software package or version.

CISC 308  Exploring Computer Environments and the Internet  1 Unit
Course Transferable to CSU
Hours: 18 hours LEC
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.

CISC 309  Applied Applications Lab  .5 Unit
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
Hours: 27 hours LAB
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.

CISC 310  Introduction to Computer Information Science  3 Units
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

CISC 320  Operating Systems  1 Unit
Advisory: CISC 300 and ability to touch type.
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
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.

CISC 322  Linux Operating System  1 Unit
Advisory: CISC 300 and ability to touch type.
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
This course introduces the Linux operating system for microcomputers. Concepts include kernels, file structures, daemons, shells, GUIs, procedures for installing software, creation of user accounts, shell commands, scripts, and file security.

CISC 324  Intermediate Linux Operating System  1 Unit
Prerequisite: CISC 323 with a grade of ”C” or better.
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
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.

CISC 350  Introduction to Data Communications  1 Unit
Advisory: CISC 300 and ability to touch type.
Course Transferable to CSU
Hours: 18 hours LEC
This course introduces business data communication concepts, systems, technology, protocols, theory, and basic terminology. Specific topics include analog and digital data encoding and transmission, media, interfaces, packet, circuit and broadcast networks, and data multiplexing.

CISC 351  Introduction to Local Area Networks  1 Unit
Advisory: CISC 320 and 350.
Course Transferable to CSU
Hours: 18 hours LEC; 18 hours LAB
This course introduces local area networks (LAN) and provides hands-on training in LAN applications and network administration. Topics include planning, installing, and maintaining a LAN, responsibilities of the system administrator, and basic network security principles. The course may be taken for credit four times on a different Windows operating system.

CISC 361  Microcomputer Support And Repair  3 Units
Advisory: CISC 310, 320, and 350.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers hardware repair for stand-alone personal computers. It includes training to troubleshoot hardware to a field replaceable component. Desktop 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 provides a foundation for the Computing Technology Industry Association (CompTIA) A+ certification.

CISC 362  Microcomputer and Applications Support  2 Units
Prerequisite: CISA 305, 315, and 320 with grades of ”C” or better.
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
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.
CISC 363  Advanced Microcomputer Support and Repair  2 Units
Prerequisite: CISC 361 with a grade of “C” or better.
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course provides 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 is a preparation for the Computing Technology Industry Association (CompTIA) A+ Certification exam.

CISC 498  Work Experience in Computer Information Science  1-4 Units
Corequisite: Must be enrolled in a minimum of 7 units including work experience.
Course Transferable to CSU
Hours: 18 hours LEC; 75-300 hours LAB
This course is supervised work experience in Computer Information Science for the purpose of increasing the understanding of the nature and scope of the operation of business, government or service agencies. This course requires that students be employed in a paid or volunteer work experience environment. May be taken twice for a maximum of 8 units.

CISN 110  Networking Technologies - Preparation for N+ Certification  2 Units
Corequisite: CISC 350.
Advisory: CISC 361.
Hours: 27 hours LEC; 27 hours LAB
This course is an introductory, hands-on course in networking software and hardware. Topics covered include modems, communication protocols, local and wide area networks, intra and inter networks, network architectures, topologies, and the Open Systems Interconnect (OSI) model. CISN 110 and CISN 111 are preparation for industry N+ certification test.

CISN 111  Intermediate Networking Technologies - Preparation for N+ Certification  2 Units
Prerequisite: CISN 110 with a grade of “C” or better.
Advisory: CISC 361.
Hours: 27 hours LEC; 27 hours LAB
This course is an intermediate, hands-on course in networking software and hardware. Topics covered will include network operating systems setup, analyzing network performance, diagnosing, repairing of network problems, and network security techniques. CISN 110 and CISN 111 are preparation for industry N+ certification test.

CISN 119  TCP/IP Protocols  3 Units
Advisory: CISC 350.
Hours: 54 hours LEC
This course covers the TCP/IP protocol suite for the Internet. Information to support and manage TCP/IP is provided.

CISN 120  Beginning Network Administration with Linux  3 Units
Prerequisite: CISC 323 with a grade of “C” or better.
Advisory: CISC 324.
Hours: 45 hours LEC; 27 hours LAB
This course covers the basics of installation and administration of the Linux Network Operating System. Topics include installation of the Linux server, connecting to a network, utilizing network utilities, administering and maintaining network printing, protecting network data, and installing network applications. This course also covers planning, accessing, and managing file systems, planning and implementing login and file system security, administering and maintaining user accounts, upgrading the kernel, and backing up servers.

CISN 121  Network Administration with Linux: LAN Services  2 Units
Prerequisite: CISN 120 with a grade of “C” or better.
Advisory: CISN 119.
Hours: 27 hours LEC; 27 hours LAB
This course covers Linux network administration of local area network (LAN) services. Topics focus on server and LAN services including the network file system (NFS), share resources between Linux and Microsoft Windows using Server Message Block (SMBs), network information service (NIS), virtual network computing (VNC), remote network access, the secure shell (SSH) vs. telnet, X-windows as a network service, and dynamic host configuration protocol (DHCP). The course also covers the command scheduler (cron), monitoring and logging system activities and system events (syslog), as well as installing and configuring MySQL Structured Query Language (SQL) database management service.

CISN 122  Network Administration with Linux: Internet Services  2 Units
Prerequisite: CISN 120 with a grade of “C” or better.
Advisory: CISN 119.
Hours: 27 hours LEC; 27 hours LAB
This course covers Linux network administration of Internet services. Topics focus on server and TCP/IP services including the Internet services daemon (XINETD), file transfer protocol (FTP), email, domain name service (DNS), firewall, secure shell, and proxy services. Installing and configuring the Apache Web Server and Webmin (the Linux web based administration tool) are introduced.

CISN 140  Cisco Networking Academy (CCNA)®: Data Communication and Networking Fundamentals  3 Units
Advisory: CISC 310, OR CISC 300 and 320.
Hours: 54 hours LEC; 18 hours LAB
This course introduces data communication and networking fundamentals. It surveys data communication hardware and software components and basic networking concepts. Topics include data communication, the OSI Model, IP addressing, routing concepts, and network management and analyses. This is the first course in preparation for Cisco CCNA certification examination. ARC is a certified Cisco Networking Academy and all courses are taught by Cisco Certified Academy Instructors (CCAI).

CISN 141  Cisco Networking Academy (CCNA)®: Networking Theory and Routing Technologies  3 Units
Prerequisite: CISN 140 with a grade of “C” or better.
Hours: 54 hours LEC; 18 hours LAB
This course provides an introduction to networking theory and routing technologies, including OSI Model, beginning router configurations, routed and routing protocols. This is the second course in preparation for Cisco CCNA certification examination. ARC is a certified Cisco Networking Academy and all courses are taught by Cisco Certified Academy Instructors (CCAI).
CISN 142  CISCO Networking Academy (CCNA)®: Advanced Routing and Switching  3 Units  
Prerequisite: CISN 141 with a grade of “C” or better.  
Hours: 54 hours LEC; 18 hours LAB  
This course provides advanced routing and switching technologies. Topics include advanced router configurations, network management, advanced network design, LAN switching, and VLANs. This is the third course in preparation for Cisco CCNA certification examination. ARC is a certified Cisco Networking Academy and all courses are taught by Cisco Certified Academy Instructors (CCAI).

CISN 143  CISCO Networking Academy (CCNA)®: 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 200  Designing Windows 2000 Network Security  3 Units  
Prerequisite: CISN 102 with a grade of “C” or better.  
Advisory: CISN 105 and 108.  
Hours: 45 hours LEC; 27 hours LAB  
This course is an introduction to designing and implementation of network strategy in an enterprise network environment. Topics include user authentication, encryption, internal and external risks, Trojans, worms, and viruses. Types of hardware and software attacks on networks, use and configuration of firewalls, file system security, logging, and auditing will be examined. It also covers security consideration for Windows 2000 servers, administrative tools, security tools, security between LAN's and WAN's, and security policy management.

CISN 300  Network Systems Administration  3 Units  
Advisory: CISN 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.

CISN 308  Internetworking with TCP/IP  3 Units  
Prerequisite: CISN 302 with a grade of “C” or better.  
Course Transferable to CSU  
Hours: 45 hours LEC; 27 hours LAB  
This course covers 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 Naming Service (WINS), Internet Information Server (IIS), Public Key Infrastructure (PKI) and certificate service, Internet protocol security (IPSec), Network Address Translation (NAT), and remote access. It also covers configuring Windows as a network router, Virtual Private Network (VPN) connectivity and managing a Windows deployment using Remote Installation Services (RIS). This course may be taken four times on different Windows operating system versions.

CISN 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.

CISN 374  Messaging Server Administration  3 Units  
Prerequisite: CISN 302 with a grade of “C” or better.  
Course Transferable to CSU  
Hours: 45 hours LEC; 27 hours LAB  
This course 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.
CIS 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 317   Computer Organization and Assembly Language Programming  4 Units
Prerequisite: CISP 300 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 internal organization of a computer. Topics include learning to program in assembly language, implementing high level logic such as loops and subroutines, and performing low level hardware access.

CISP 319   Advanced Assembly Programming  4 Units
Prerequisite: CISP 317 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC, 54 hours LAB
This course is an extension of the language and techniques studied in CISP 317. Topics include stacks, call frames, arrays and structures in assembly language. Hardware related topics such as interrupts, pre-emption and multitasking are also introduced.

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 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 321   Advanced COBOL Programming  4 Units
Prerequisite: CISP 320 with a grade of “C” or better.
Course Transferable to UC/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 340   FORTRAN Programming  3 Units
Advisory: CISC 310, CISP 300, and MATH 120
General Education: AA/AS Area II(b)
Course Transferable to UC/CSU
Hours: 36 hours LEC, 54 hours LAB
This course is an introduction to the computer solution of problems by programming in FORTRAN. The emphasis is on learning the language and structured programming techniques. Emphasis is placed on solving problems in engineering and the physical sciences. Appropriate for all majors in engineering, science, and mathematics.

CISP 350   Database Programming  3 Units
Advisory: CISA 320, CISA 321, CISC 310, and CISP 300
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This is an introductory course to programming in database. The topics include analysis and design, modular programming, screen displays and menus, and multiple databases.
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 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 on 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: CISC 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.
CIS - Security

CISS 300 Introduction to Information Systems Security 1 Unit
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 340 Implementing UNIX/Linux Operating System Security 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 presents in-depth explanations of the UNIX/Linux operating system security features as well as step-by-step configuration guides for proper operating system configuration. Topics include data and system integrity, authenticity, availability, and privacy of data.

CISS 341 Implementing Microsoft Windows Operating Systems Security 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 provides in-depth explanations of Microsoft Windows operating system security features as well as step-by-step configuration guides for proper operating system security configuration. The knowledge and skills needed in order to maintain the integrity, authenticity, availability, and privacy of data are covered.

CISS 342 Implementing UNIX/Linux Operating System Security 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 provides in-depth explanations of the UNIX/Linux operating system security features as well as step-by-step configuration guides for proper operating system configuration. Topics include data and system integrity, authenticity, availability, and privacy of data.

CISS 350 Disaster Recovery 3 Units
Prerequisite: CISS 310 with a grade of “C” or better.
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course provides methods for identifying vulnerabilities and implementing countermeasures to prevent and mitigate failure risks for the business enterprise. Topics include disaster recovery, development of a disaster recovery plan, and development and implementation of disaster recovery policies and procedures.

CISS 360 Computer Forensics and Investigation 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 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, technical writing, ethics, and a review of standard computer forensics tools. The course topics map to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification.

CISW - Web

CISS 300 Web Publishing 3 Units
Advisory: CISC 300 and CISC 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.

CISS 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 310  Advanced Web Publishing  4 Units
Prerequisite: CISW 300.
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, dynamics HTML, forms, client-side programming with JavaScript, CGI scripting with Perl, and web-database interactivity.

CISW 350  Imaging for the Web  3 Units
Same As: ARTNM 400
Prerequisite: CISW 300 or ARTNM 402 or ARTNM 404 with a grade of “C” or better.
Course Transferable to CSU
Hours: 36 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 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 software package. Not open to students who have completed ARTNM 400.

CISW 355  Web Imaging Projects  2 Units
Prerequisite: CISW 350 or ARTNM 402 or ARTNM 404 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. 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 software package. Not open to students who have completed ARTNM 400.

CISW 365  Interactive Multimedia Basics  3 Units
Same As: ARTNM 404
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 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: CISW 300 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 personalization 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: CISW 310 and CISP 300.
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 windows and frames, functions, and form validation. May be taken twice on 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 Macromedia 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: CISW 310 and CISP 300.
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 ASP. Topics include core features of the middleware scripting language, embedding server commands in HTML pages, control structures, functions, arrays, form validations, cookies, environmental variables, email applications, and database-driven web applications. May be taken twice in a 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: CISW 310 and CISP 300.
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 structures, functions, arrays, form validation, regular expressions, cookies, environmental variables, email applications, and database-driven web applications. May be taken twice with 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: 36 hours LEC, 54 hours LAB
This course describes how to create well-formed and valid Extensible 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, 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 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</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESIGN 100</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 102</td>
<td>Intermediate Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 300</td>
<td>Introduction to Design Resources</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 308</td>
<td>Three Dimensional Design-Solids Modeling</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 310</td>
<td>Graphic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 320</td>
<td>Three Dimensional Graphics and Design</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 330</td>
<td>Machine Design</td>
<td>4</td>
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<tr>
<td>DESIGN 340</td>
<td>Architecture and Construction</td>
<td>5</td>
</tr>
<tr>
<td>DESIGN 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>DESIGN 360</td>
<td>Commercial Engineering Design and Drafting</td>
<td>5</td>
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<td>DESIGN 308</td>
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<td>or ENGR 312</td>
<td>Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 330</td>
<td>Machine Design</td>
<td>4</td>
</tr>
<tr>
<td>or ENGR 320</td>
<td>Manufacturing Processes</td>
<td>3</td>
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<tr>
<td>DESIGN 340</td>
<td>Architecture and Construction</td>
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</tr>
<tr>
<td>or ENGR 360</td>
<td>Commercial Engineering Design and Drafting</td>
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<td>4</td>
</tr>
<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>
<tr>
<td>or PHYS 350</td>
<td>General Physics</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), chemical, 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 Certificate 41-44 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry (5)</td>
<td>4-5</td>
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<tr>
<td>or CHEM 310</td>
<td>Chemical Calculations (4)</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>DESIGN 100</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 102</td>
<td>Intermediate Computer Aided Drafting and Design (CADD)</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 300</td>
<td>Introduction to Design Resources (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 307</td>
<td>Industrial Materials Testing (3)</td>
<td>3</td>
</tr>
<tr>
<td>DESIGN 308</td>
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</tr>
<tr>
<td>or ENGR 312</td>
<td>Engineering Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

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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. By 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.

Construction Management Option 70-71.5 Units

- ACCT 301  Financial Accounting 4
- ACCT 311  Managerial Accounting 4
- BIOL 303  Survey of Biology 4
- BUS 340  Business Law 3
- CISA 305  Beginning Word Processing 2
- CISA 315  Introduction to Electronic Spreadsheets 2
- CISC 320  Operating Systems 1
- DESGN 100  Introduction to Computer Aided Drafting and Design (CADD) 3
- DESGN 102  Intermediate Computer Aided Drafting and Design (CADD) 3
- DESGN 310  Graphic Analysis 3
- DESGN 340  Architecture and Construction (5) 5
- DESGN 350  Surveying and Construction Measurement Techniques (4) 4
- ENGR 310  Engineering Survey Measurements (4)
- ENGR 320  Manufacturing Processes 3
- MATH 350  Calculus for the Life and Social Sciences I 3
- MATH 351  Calculus for the Life and Social Sciences II 3
- PHYS 350  General Physics 4
- PHYS 360  General Physics 4
- STAT 301  Introduction to Probability and Statistics 3

And a minimum of 3 units from the following:

One or more transfer level Humanities course (numbered 300-499)
And a minimum of 3 units from the following:

One or more transfer level Language and Rationality course (numbered 300-499)
And a minimum of 6 units from the following:

Transfer level Social Science courses (numbered 300-499)

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 110  Drafting for Design Majors 1 Unit

Hours: 9 hours LEC; 27 hours LAB

Basic drafting techniques for interior design and theatre arts majors. Not recommended for drafting or engineering majors.

DESGN 300  Introduction to Design Resources 3 Units

Advisory: ENGW 102 or 103, and ENGRD 116; or ESLW 320 and ESLW 320.
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.

DESGN 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: ENGW 102 or 103, and ENGRD 116; or ESLW 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.

**DESGN 310 Graphic Analysis**  
*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.

**DESGN 320 Three Dimensional Graphics and Design**  
*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.

**DESGN 330 Machine Design**  
*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.

**DESGN 340 Architecture and Construction**  
*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.

**DESGN 350 Surveying and Construction Measurement Techniques**  
*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.

**DESGN 360 Commercial Engineering Design and Drafting**  
*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.

**DESGN 405 Advanced Computer-Aided Drafting and Design (CADD)**  
*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>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 300</td>
<td>3</td>
</tr>
<tr>
<td>ECE 312</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td></td>
</tr>
<tr>
<td>ECE 314</td>
<td>3</td>
</tr>
<tr>
<td>ECE 320</td>
<td>4</td>
</tr>
<tr>
<td>ECE 321</td>
<td>4</td>
</tr>
<tr>
<td>ECE 331</td>
<td>3</td>
</tr>
<tr>
<td>ECE 410</td>
<td>1</td>
</tr>
<tr>
<td>ECE 420</td>
<td>2-5</td>
</tr>
<tr>
<td>or ECE 424</td>
<td></td>
</tr>
<tr>
<td>Learning Setting</td>
<td>(2)</td>
</tr>
<tr>
<td>ECE 450</td>
<td>3</td>
</tr>
<tr>
<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>6</td>
</tr>
<tr>
<td>ECE 305</td>
<td></td>
</tr>
<tr>
<td>ECE 316</td>
<td></td>
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<tr>
<td>ECE 325</td>
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<td>ECE 330</td>
<td></td>
</tr>
<tr>
<td>ECE 350</td>
<td></td>
</tr>
<tr>
<td>ECE 356</td>
<td></td>
</tr>
</tbody>
</table>

32-33 Units

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>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 300</td>
<td>3</td>
</tr>
<tr>
<td>ECE 312</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td></td>
</tr>
</tbody>
</table>

6 Units
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 assistant or associate teacher in a publicly funded (Title 5) early care and education program.

Requirements for Certificate 13 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>
<td>3</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td>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>
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<td>ECE 312</td>
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<td>Child Development (3)</td>
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<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.

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>
<td>Introduction to Early Childhood Education</td>
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<tr>
<td>ECE 312</td>
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<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>
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</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>
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</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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ECE 361</td>
<td>Introducing Young Children to Visual Arts</td>
<td>3</td>
</tr>
<tr>
<td>ART 320</td>
<td>Design: Fundamentals (3)</td>
<td>3</td>
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<tr>
<td>ART 432</td>
<td>Art for Children Practicum (2 - 4)</td>
<td>3</td>
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<tr>
<td>ARTH 300</td>
<td>Introduction to Art (3)</td>
<td>3</td>
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</table>

Children’s Health, Safety and Nutrition 48 Units

Core Requirements 42

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 415</td>
<td>Children’s Health, Safety and Nutrition (3)</td>
<td>3</td>
</tr>
<tr>
<td>or NUTRI 320</td>
<td>Children’s Health, Safety and Nutrition (3)</td>
<td>3</td>
</tr>
<tr>
<td>NUTRI 300</td>
<td>Nutrition</td>
<td>3</td>
</tr>
</tbody>
</table>
## Core Requirements 42 Units
- ECE 404  Children with Special Needs  3

### Culture and Diversity 48 Units
- Core Requirements 42
- ECE 452  Leadership in Diversity  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 (5)

### Infant Care 48 Units
- Core Requirements 42
- ECE 350  Infant Development  3
- Any course from Area VI of the ARC GE graduation requirements, with the exception of ECE 430.

### Music with Children 48 Units
- Core Requirements 42
- ECE 363  Music and Movement with Young Children  3
- Any course from Area VI of the ARC GE graduation requirements, with the exception of ECE 430.

### School-Age Care 48 Units
- Core Requirements 42
- ECE 358  Activities for the School-Age Child (Six to Fourteen Years)  3
- Any course from Area VI of the ARC GE graduation requirements, with the exception of ECE 430.

### Special Needs 48 Units
- Core Requirements 42
- ECE 404  Children with Special Needs  3
- Any course from Area VI of the ARC GE graduation requirements, with the exception of ECE 430.

### Site Supervisor Certificate
Administration of early care and education programs is the main focus of this certificate. Topics include administration, supervision and coordination of staff in early childhood settings. Additionally, it provides the educational coursework that serves as the core curriculum for the early childhood education field. Along with documented experience, this certificate leads to the Site Supervisor Permit issued by the California Commission on Teacher Credentialing and is required of those individuals supervising a publicly funded early childhood education site.

### Career Opportunities
Upon completion of this certificate, the student exceeds the minimum requirements to work as a director/site supervisor in a privately funded early care and education program. With documented experience supervising staff, the student also meets the requirements to work as a director/site supervisor in a publicly funded early care and education program.

### Requirements for Certificate 60 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 321  Advanced Principles and Practices in Early Childhood Education  4
- ECE 331  Education and Care of Infants in Group Settings  3
- ECE 410  Health and Safety in Child Care Settings  1
- ECE 420  Administration of Child Development Centers  3
- ECE 422  Advanced Coordination/Supervision Child Development Programs  3
- ECE 424  Adult Supervision: Mentoring in a Collaborative Learning Setting  2
- ECE 430  Culture and Diversity in Early Childhood Education  3
- or NUTRI 320  Children's Health, Safety and Nutrition (3)  3
- ECE 432  Leadership in Diversity (3)

And a minimum of 22 units from the following: 22

Course list to fulfill ARC General Education requirements.

The Early Childhood Education Department is also authorized to recommend students to the Commission on Teacher Credentialing for the Child Development Assistant Permit and for the Program Director Permit. Students who wish to be recommended for the Child Development Assistant

Permit must have completed ECE 312/PSYC 372, and ECE 300 for a total of six units. Students who wish to be recommended for the Child Development Program Director Permit must verify completion of a BA degree, possess the Child Development Teacher Certificate, and complete ECE 420, 422 and 424. This permit is required for those supervising multiple publicly-funded early childhood education sites.

Specialist Certificates
The following certificates are designed for students who seek courses which will prepare them to work with a specific age group or program type. The following certificates meet the minimum requirements for teaching in or administering privately-funded early care and education.

Culture & Diversity Specialist Certificate
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 offers a specialization in culture and diversity issues dealing with young children and their families.

Career Opportunities
Upon completion of this specialization certificate, the individual is eligible to be a teacher in a publicly funded (Title 5) early care and education program and/or an associate teacher in a privately funded (Title 22) early care and education program, serving infants through preschool-age children.

Requirements for Certificate 20 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>
<td>3</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td>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 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>
<tr>
<td>ECE 432</td>
<td>Leadership in Diversity</td>
<td>3</td>
</tr>
</tbody>
</table>

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 12 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 305</td>
<td>Introduction to Family Child Care</td>
<td>1</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
</tr>
<tr>
<td>ECE 410</td>
<td>Health and Safety in Child Care Settings</td>
<td>1</td>
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</tbody>
</table>

And a minimum of 4 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ECE 498</td>
<td>Work Experience in Early Childhood Education (1 - 4)</td>
<td>4</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
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</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 430</td>
<td>Culture and Diversity in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 440</td>
<td>Intro to Family Support Services in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>HSER 300</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

Career Opportunities
Upon completion of this certificate, the student exceeds the minimum requirements to be a teacher of infants and toddlers in privately funded early childhood education programs (as required by Title 22 of the California Social Services Code of Regulations). Additionally, the student qualifies as an associate teacher of infants and toddlers in publicly funded early childhood education programs (as required by Title 5 California Education Code of Regulations).

Requirements for Certificate 21 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
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<tr>
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<td>Introduction to Early Childhood Education</td>
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<tr>
<td>ECE 312</td>
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<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 330</td>
<td>Infant Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE 331</td>
<td>Education and Care of Infants in Group Settings</td>
<td>3</td>
</tr>
<tr>
<td>ECE 334</td>
<td>Laboratory with Infants and Toddlers</td>
<td>1</td>
</tr>
<tr>
<td>ECE 410</td>
<td>Health and Safety in Child Care Settings</td>
<td>1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
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<tr>
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<td>Health and Safety in Child Care Settings</td>
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<tr>
<td>ECE 420</td>
<td>Administration of Child Development Centers</td>
<td>3</td>
</tr>
<tr>
<td>ECE 422</td>
<td>Advanced Coordination/Supervision of Child Development Programs</td>
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</tr>
<tr>
<td>ECE 424</td>
<td>Adult Supervision: Mentoring in a Collaborative Learning Setting</td>
<td>2</td>
</tr>
<tr>
<td>ECE 498</td>
<td>Work Experience in Early Childhood Education</td>
<td>1-4</td>
</tr>
</tbody>
</table>

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ECE 294 Topics in Early Childhood Education .5-4 Units

Hours: 9-72 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.

ECE 300 Introduction to Early Childhood Education 3 Units

Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to early childhood education, including an overview of the history of the field, current curriculum approaches, and programs serving children from infancy through the school-age years. It reviews the current status of education for young children, with a focus on integrated education. Techniques for observing, documenting, and interpreting the behavior of young children and opportunities to observe in a variety of early childhood education settings will be included.

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

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</tr>
<tr>
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<td>3</td>
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</tr>
<tr>
<td>ECE 320</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>4</td>
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<tr>
<td>ECE 410</td>
<td>Health and Safety in Child Care Settings</td>
<td>1</td>
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<td>ECE 420</td>
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ECE 120 Effective Discipline for Foster Parents 1 Unit

Hours: 18 hour 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.

ECE 122 Competence in Diversity 1 Unit

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.
### ECE 316  Mass Media and Young Children  1 Unit

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.

### ECE 320  Principles and Practices in Early Childhood Education  4 Units

Prerequisite: ECE 300 and either ECE 312 or PSYC 372 with a grade of “C” or better.  
Enrollment Limitation: Current tuberculosis clearance.  
Course Transferable to CSU  
Hours: 36 hours LEC; 108 hours LAB  
This course provides supervised experience working with children in an early childhood setting. Topics include principles of curriculum development, classroom design, and child guidance, with 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” or 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 the developmental needs of infants, from conception to three years of age, preparing both parents and health, education, and social service professionals with strategies for care that are based on research in infant development.

### 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

Prerequisite: Current tuberculosis clearance.  
Corequisite: ECE 330 or 331.  
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 Early Childhood Education 330 or 331. The course requires participation for a designated three hours per week with infants and/or toddlers under the supervision of experienced teachers in a supervised infant - toddler care setting. This course may be taken twice for credit.

### ECE 335  Field Experience  3 Units

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 336  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 337  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 338  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 are required.

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: 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: 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: 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 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. The course 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.

ECE 498  Work Experience in Early Childhood Education 1-4 Units
Prerequisite: Current tuberculosis clearance.
Corequisite: Student must be enrolled in a minimum of 7 units, including this course.
Course Transferable to CSU
Hours: 18 hours LEC; 60-300 hours LAB
This course provides work experience in early childhood settings - primarily child care and development centers - with opportunities to work with children from infancy through the school-age years. By combining volunteer or paid work experience with college training, jobs are used as learning settings and together with the employer and the college instructor establish learning objectives for the semester. Enrollment is dependent on employment or on availability of voluntary work placement. Instructor may assist in locating voluntary work placement. Course may be taken four times for a maximum of eight units.
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; 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 microcontrollers.

Career Opportunities

This degree or certificate provides students with the knowledge to successfully enter a variety of electronics and telecommunications 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.

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<td>ET 302 Principles of Electricity and Electronics</td>
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<tr>
<td>ET 307 High Tech Soldering and Fabrication Techniques</td>
<td>2</td>
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<tr>
<td>ET 310 Mathematics for DC Circuit Fundamentals, Part I</td>
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<tr>
<td>ET 311 Mathematics for AC Circuit Fundamentals, Part I</td>
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<tr>
<td>ET 322 Semiconductor Devices and Applications</td>
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<td>ET 335 Integrated Circuits with Computer Applications</td>
<td>5</td>
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<tr>
<td>ET 380 Introduction to Electronic Communications</td>
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<td>ET 420 Microcontrollers and Digital Signal Processors</td>
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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.

Electronic Systems Technology Degree and Certificate

- A.S. - Electronic Systems Technology
- A.S. - Mechtronics
- Advanced Electronic Assembly and Repair
- Basic Electronic Assembly and Repair
- CMOS Mask Design
- Digital Repair & Upgrade Technician
- Electronic Systems Technology
- Fiber Optics
- Mechtronics
- Robotics

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electronics technology

Requirements for Degree or Certificate  36 Units
1st Semester
ET 302  Principles of Electricity and Electronics  4
DESIGN 100  Introduction to Computer Aided Drafting and Design (CADD)  3
WELD 300  Introduction to Welding  3

Other Semesters
DESIGN 102  Intermediate Computer Aided Drafting and Design (CADD)  3
ENGR 307  Industrial Materials Testing  3
ET 143  Computer Upgrade, Repair, and Assembly  2
ET 192  Introduction to Robotics  2
ET 194  Intermediate Robotics  2
ET 195  Electrical and Mechanical Power and Control Systems  3
MATH 100  Elementary Algebra  5
MGMT 360  Management Communication  5
PHYS 310  Conceptual Physics  3

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

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.

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.

Requirements for Certificate  10 Units
ET 115  Fiber Optics and Telecommunications Cabling  4
ET 302  Principles of Electricity and Electronics  4
ET 307  High Tech Soldering and Fabrication Techniques  2

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.

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.

Requirements for Certificate  17 Units
1st Semester
ET 115  Fiber Optics and Telecommunications Cabling  4
ET 302  Principles of Electricity and Electronics  4
ET 307  High Tech Soldering and Fabrication Techniques  2

Other Semesters
ET 143  Computer Upgrade, Repair, and Assembly  2
ET 322  Semiconductor Devices and Applications  5

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.

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.

Requirements for Certificate  12 Units
CISC 320  Operating Systems  1
ET 205  CMOS Mask Design I  3
ET 206  CMOS Mask Design II  3
ET 355  Integrated Circuits with Computer Applications  5

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.

Career Opportunities

The Digital Repair and Upgrade Technician certificate prepares the student for a wide variety of jobs in the computer industry such as network communication cable installer, interface troubleshooter, and fiber optic installer.

Requirements for Certificate  11-14 Units
CISC 320  Operating Systems  1
CISC 361  Microcomputer Support And Repair  3
CISC 363  Advanced Microcomputer Support and Repair  2
ET 143  Computer Upgrade, Repair, and Assembly  2
ET 298  Work Experience in Electronics Technology  1 - 4
ET 307  High Tech Soldering and Fabrication Techniques  2
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.

Career Opportunities
The Fiber Optic certificate prepares the student to obtain entry level employment in a wide variety of positions in the telecommunication and fiber optic industry. It is also valuable for people working in the industry to upgrade their skill level to include the newest advancements in fiber technology.

Requirements for Certificate 17 Units
ET 115 Fiber Optics and Telecommunication Cabling 4
ET 302 Principles of Electricity and Electronics 4
ET 380 Introduction to Electronic Communications 4
ET 386 Fiber Optic Splicing, Connectivity and Testing 3
ET 387 Advanced Fiber Optics 2

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

ET 102 Advanced Telecommunication Systems 3 Units
Prerequisite: ET 100 with a grade of “C” or better, or Telecommunications Industry Experience.
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 114 Basic Electricity and Electronics for Installation Specialists 5 Units
Advisory: 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 180  Circuit Review and Application  3 Units
Prerequisite: ET 330 with a grade of "C" or better.
Hours: 54 hours LEC
This course is a thorough review of electronics theory and devices with emphasis on circuit analysis and troubleshooting techniques. Commercial schematics are used in the review of DC/AC fundamentals, digital systems, analog circuits (bipolar and field effect transistors as well as op amps) and non-linear devices such as SCR's and triacs. This course is helpful in preparing for job interviews and is also a refresher course for technicians currently employed in the field of electronics. This course may be taken twice for credit.

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 (PLC’s), 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 / 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. PLC’s 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, STIKS 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: 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 technologically-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  2 Units

Same As: AT 251
Hours: 27 hours LEC, 27 hours LAB
This course covers the electrical principles and processes involved in the installation of stereo sound, alarm and other entertainment, electrical and electronic systems and components. Installation safety, circuit diagrams, inspection, and wiring techniques are covered along with installation techniques of fiber optics, Global Positioning (GPS), and other related systems. Steps for acquiring the Mobile Electronics Certified Professional (MECP) certification are covered to complete the course content. A field trip is required. This course is not open to students who have taken the AT 251 course.

ET 294  Topics in Electronics Technology  .5-5 Units
Prerequisite: To be determined for each topic.
Hours: 9-90 hours LEC, 27-270 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
Corequisite: Maintain a minimum of 7 units.
Hours: 9-90 hours LEC, 27-270 LAB
This course gives practical experience to students who are training for careers in the electronics industry by providing actual supervised work at various electronics firms within the Sacramento area.

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)  1.5 Units
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
Advisory: ET 301
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 27 hours LEC
This course covers the application of algebra and trigonometry for the mathematical analysis of AC concepts involving resistances and/ or reactances in series, parallel and combination circuits. Computer aided learning software including MultiSim 2001 (Electronic WorkBench) will be used to assist in applying mathematical equations to electronic circuitry.

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 (ICs) 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 Reflectometer (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 electro-optical test equipment such as the Optical Time Domain Reflectometer (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 330 with a grade of "C" or better.  
**Course Transferable to CSU**  
**Hours:** 108 hours LAB  
This course provides an opportunity for students to pursue advanced projects selected by the Electronics department. This course may be taken twice for credit.
ARC’s program provides the foundation in mathematics, physics, and engineering necessary to transfer to a four-year institution and complete a bachelor’s degree in engineering. Students should consult the institution to which they wish to transfer for the specific lower division requirements.

Most lower division engineering programs require the following ARC courses: Mathematics 400, 401, 402, 420; Physics 410, 421, 431; Chemistry 400, and Engineering 401, 413, 420, 430. See also Design & Engineering Technology.

ENGR 300 Introduction to Engineering 1 Unit
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLW 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 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, concretes, 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) 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. (CAN ENGR 2)

ENGR 320 Manufacturing Processes 3 Units
Prerequisite: ENGR 312 or DESGN 310; ENGWR 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 in intended to provide a solid foundation for upper division engineering courses. (CAN ENGR 6)

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 ESLR 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. (CAN ENGR 4)
ENGR 420 Statics 3 Units
Prerequisite: MATH 401 and PHYS 410 with grades of “C” or better.
Advisory: ENGR 305 or DESGN 300, and MATH 410.
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the study of bodies in equilibrium with emphasis on force systems, structures, distributed loads, friction and virtual work. In this course, analytical rather than graphical methods of problem solving will be emphasized. (CAN ENGR 8)

ENGR 428 Engineering Mechanics 3 Units
Prerequisite: Physics 410 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the study of bodies in equilibrium with emphasis on structures and friction, including methods to calculate centroids and moments of inertia. It also includes the fundamental principles of kinematics and kinetics, and the study of motion and force analysis of particles and rigid bodies.

ENGR 430 Dynamics 3 Units
Prerequisite: ENGR 420 and MATH 402 with a grade of “C” or better.
Advisory: MATH 420; ENGWR 300 or ESLW 340.
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the basic fundamentals of dynamics for engineers. Topics include kinematics and kinetics of particles, systems of particles and rigid bodies; systems with fixed and rotating axes; and the equations of motion, energy and momentum.
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>
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<tr>
<td>ENGW 300</td>
<td>College Composition</td>
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<td>or ENGW 480</td>
<td>Honors College Composition</td>
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<tr>
<td>ENGW 301</td>
<td>College Composition and Literature</td>
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<tr>
<td>or ENGW 481</td>
<td>Honors College Composition and Literature</td>
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<tr>
<td>or ENGW 302</td>
<td>Advanced Composition and Critical Thinking</td>
<td>3</td>
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<tr>
<td>or ENGW 482</td>
<td>Honors Advanced Composition and Critical Thinking</td>
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<td>ENGLT 310</td>
<td>English Literature</td>
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<tr>
<td>ENGLT 311</td>
<td>English Literature</td>
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<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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And a minimum of 6 units from the following:

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<th>Course Code</th>
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<th>Units</th>
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<tr>
<td>ENGW 400</td>
<td>Creative Writing</td>
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<tr>
<td>ENGW 410</td>
<td>Fiction Writing Workshop</td>
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<td>ENGW 420</td>
<td>Poetry Writing Workshop</td>
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<td>ENGW 421</td>
<td>A Short Course in Poetry Writing</td>
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<td>ENGW 430</td>
<td>Creative Non-Fiction Writing Workshop</td>
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<td>ENGW 440</td>
<td>Screenwriting Workshop</td>
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<td>ENGW 441</td>
<td>Advanced Screenwriting Workshop</td>
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<td>ENGW 450</td>
<td>College Literary Magazine</td>
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<td>ENGED 305</td>
<td>Structure of English</td>
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<tr>
<td>ENGED 320</td>
<td>Service Learning: Tutoring Elementary Students in Reading</td>
<td>3</td>
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<td>ENGED 322</td>
<td>Peer Tutoring in English and Reading</td>
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<tr>
<td>ENGLT 300</td>
<td>Introduction to Fiction</td>
<td>3</td>
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<tr>
<td>ENGLT 304</td>
<td>Introduction to Poetry</td>
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<td>ENGLT 327</td>
<td>Literature of California</td>
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<td>ENGLT 333</td>
<td>African-American Dramatic Literature</td>
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<td>ENGLT 334</td>
<td>Asian-American Literature</td>
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<td>Other American Literatures</td>
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<td>ENGLT 338</td>
<td>Native American Literature</td>
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<td>ENGLT 340</td>
<td>World Literature</td>
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<td>World Literature</td>
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<td>ENGLT 345</td>
<td>Mythologies of the World</td>
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<td>ENGLT 360</td>
<td>Women in Literature</td>
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<td>ENGLT 370</td>
<td>Children and Literature</td>
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<td>ENGLT 372</td>
<td>Children and Literature: Storytelling</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</td>
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<td>ENGLT 378</td>
<td>Young People’s Literary Classics</td>
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<td>ENGLT 380</td>
<td>Introduction to Shakespeare</td>
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<td>ENGLT 382</td>
<td>Literary Themes in Dramatic Literature</td>
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<td>ENGLT 390</td>
<td>Mystery and Detective Fiction</td>
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<td>ENGLT 392</td>
<td>Science Fiction and Fantasy</td>
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<td>ENGLT 493</td>
<td>Short Literary Topics</td>
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<td>ENGLT 494</td>
<td>Topics in Literature</td>
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<td>ENGRD 310</td>
<td>Prose Analysis and Interpretation</td>
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<tr>
<td>ENGRD 312</td>
<td>Academic Textbook Reading</td>
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<tr>
<td>ENGW 330</td>
<td>Writing for Publication</td>
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<tr>
<td>ENGW 331</td>
<td>Writing for Publication</td>
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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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<th>Course Code</th>
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<tr>
<td>ART 320</td>
<td>Design: Fundamentals</td>
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<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: Typographical Design</td>
<td>3</td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>CISA 306</td>
<td>Intermediate Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>CISC 320</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CISM 300</td>
<td>Web Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ENGW 334</td>
<td>Introduction to Technical/Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGW 344</td>
<td>Technical/Professional Communication: Writing Reports (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGW 348</td>
<td>Technical/Professional Communication: Plain English (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>or ENGW 350</td>
<td>Technical/Professional Communication: Proposal Writing (1.5)</td>
<td>1.5</td>
</tr>
<tr>
<td>ENGW 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals</td>
<td>3</td>
</tr>
<tr>
<td>or SPEECH 331</td>
<td>Group Discussion</td>
<td>3</td>
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And a minimum of 6 units from the following:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENGW 450</td>
<td>College Literary Magazine</td>
<td>3</td>
</tr>
<tr>
<td>ENGW 330</td>
<td>Writing for Publication</td>
<td>3</td>
</tr>
<tr>
<td>ENGW 331</td>
<td>Writing for Publication</td>
<td>3</td>
</tr>
<tr>
<td>ENGRD 334</td>
<td>Introduction to Careers in Technical Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGW 336</td>
<td>Writing Formal Reports</td>
<td>3</td>
</tr>
<tr>
<td>ENGRD 338</td>
<td>Writing Training Materials</td>
<td>3</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>3</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>
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And a minimum of 12 units from the following:

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>ARTNM 324</td>
<td>Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 328</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>
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<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>3</td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CISM 310</td>
<td>Advanced Web Publishing</td>
<td>3</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 Certificate

Requirements for Certificate  20.5-21.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ARTNM 352</td>
<td>Design for Publication (3)</td>
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<td>or CISA 331</td>
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<tr>
<td>and CISA 331</td>
<td>Intermediate Desktop Publishing (2)</td>
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<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>ENGW 342</td>
<td>Introduction to Technical/Professional Communication (1.5)</td>
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</tr>
<tr>
<td>ENGW 352</td>
<td>Technical/Professional Communication: Writing Technical Manuals (3)</td>
<td>3</td>
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<td>And a minimum of 6 units from the following:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>ARTNM 324</td>
<td>Digital Design (3)</td>
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<tr>
<td>ARTNM 328</td>
<td>Digital Photo Imagery - Photoshop Basics (3)</td>
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<tr>
<td>ARTNM 330</td>
<td>Intermediate Digital Photo Imagery (3)</td>
<td>3</td>
</tr>
<tr>
<td>ARTNM 402</td>
<td>Intermediate Web Design (3)</td>
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</tr>
<tr>
<td>ARTNM 404</td>
<td>Interactive Multimedia Basics (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics (2)</td>
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<tr>
<td>CISW 300</td>
<td>Web Publishing (3)</td>
<td></td>
</tr>
<tr>
<td>CISW 310</td>
<td>Advanced Web Publishing (4)</td>
<td></td>
</tr>
</tbody>
</table>

**English - Creative Writing**

**ENGCW 400  Creative Writing**  3 Units

Prerequisite: ENGW 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, autobiography, 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**  3 Units

Advisory: ENGW 300 or ENGCW 400 with a grade of “C” or better.

Course Transferable to 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**  3 Units

Advisory: ENGW 300 or ENGCW 400 with a grade of “C” or better.

Course Transferable to 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.

**ENGCW 421  A Short Course in Poetry Writing**  1 Unit

Advisory: ENGCW 400.

Course Transferable to CSU

Hours: 18 hours LEC

This course is designed for students writing poetry. Focuses on the analysis of poetry written by students in the class. Study of literary devices in modern and contemporary poetry and practice in revising and editing. Review of publication sources, including the Internet.

**ENGCW 430  Creative Non-Fiction Writing Workshop**  3 Units

Advisory: ENGCW 400 and ENGW 300

General Education: AA/AS Area II(b)

Course Transferable to CSU

Hours: 54 hours LEC

This is a creative writing course concentrating on the literary essay. The course will include creative approaches to various kinds of essay writing, which may include memoir, autobiography, reflective nature writing, prose with poetic elements (prose-poetry), and other fact-based or philosophical writing with a definite literary, stylistic component. In addition, there will be an emphasis on the importance of factual detail and research; on critical examination of published examples of creative nonfiction in the areas of voice, context, and point of view; and on production of several works of creative nonfiction.

**ENGCW 440  Screenwriting Workshop**  3 Units

Advisory: ENGW 300 with a grade of “C” or better.

Course Transferable to CSU

Hours: 54 hours LEC

This is an introductory writer’s workshop in three areas of screenwriting: experimental, documentary, and dramatic film. It includes preparation of three short scripts in those areas plus the viewing and analysis of films representing the three fields. This course introduces career paths in screenwriting, including local government and commercial sources preparing and utilizing film.

**ENGCW 441  Advanced Screenwriting Workshop**  3 Units

Advisory: ENGCW 400 or 440.

Course Transferable to CSU

Hours: 54 hours LEC

This course instructs students in the writing of a full-length feature or documentary film. Includes three proposals for projects, one of which will be developed through the first act in official screen format (approximately thirty pages), plus scene descriptions for major scenes, character sketches, and plot outlines. Several classic features and documentaries will be shown and analyzed for their writing strengths. Prepares students to finish a full film script using the skills learned in this class.
### ENGED 305  Structure of English 3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a study of the structure of English grammar, both descriptive and prescriptive. It includes the study and practice of traditional grammar and standard usage, with emphasis on the relationship to writing (2000 word writing requirement) and the teaching of language arts; it also includes an introduction to the history of the English language and selected issues of language acquisition among the culturally diverse population in California schools. It is designed for those who plan to teach or who are especially interested in grammar as it relates to writing.

### ENGED 320  Service Learning: Tutoring Elementary Students in Reading 3 Units
Prerequisite: ENGRD 116 with a grade of “C” or better; or placement through the assessment process.
General Education: AA/AS Area III(b)
Enrollment Limitation: TB and Fingerprint Clearance
Course Transferable to CSU
Hours: 37 hours LEC; 40 hours LAB
This class 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 experiences 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; 27-108 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: ENGWR 301 or 302.
Advisory: Working knowledge of Macintosh or PC.
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 work will integrate such presentational technologies as PowerPoint, and web-based presentational 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: ENGWR 301 or 302.
Advisory: Working knowledge of Macintosh or PC.
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 work 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 software package or version.

### ENGED 342  Technology in the English Classroom: Internet Tools .5 Units
Prerequisite: ENGWR 301 or 302.
Advisory: Working knowledge of Macintosh or PC.
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 work 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 software package or version.

### ENGED 350  Technology in the English Classroom: Creation of Web Documents .5 Units
Prerequisite: ENGWR 301 or 302.
Advisory: Working knowledge of Macintosh or PC.
Course Transferable to CSU
Hours: 6 hours LEC; 9 hours LAB
The course offers reading and writing instructors the opportunity to experience editing software and technologies and to create their own instructional web documents. The course will 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 such 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 software package or version.

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ENGLT 300 Introduction to 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 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 301 English 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 representative works in English literature from the Anglo-Saxon period to the eighteenth century.

ENGLT 302 Introduction to the Novel 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 303 Introduction to the Short Story 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 investigates African-American drama between 1800 and 1865, with emphasis on what makes the California experience unique. Poetry includes the many movements from turn-of-the-century to contemporary.

ENGLT 304 Introduction to Poetry 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 examines the literature of California in the context of its ethnic, social, political, geographical and intellectual history. The course will examine a wide range of fiction, critically analyzing plot, setting, character, theme, and style. The course includes British and American works, as well as fiction in translation.
studied in their entirety. A range of genres is represented and, whenever possible, works are literature; in addition to Greek and Latin masterpieces, the early world to the early seventeenth century. Emphasis is on Western Course Transferable to UC/CSU General Education: AA/AS Area I; CSU Area C; IGETC Area 3B

ENGLT 340 World Literature 3 Units
Prerequisite: ENGR 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 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 literacy 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, Paretsky, 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
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.
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: 18-36 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
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.
Counselor
Student's placement in a specific level class is determined through consultation with a counselor or by meeting course pre-requisite.

Referral
Instructors may refer a student, or student may self-refer.

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

Referral
Instructors may refer a student, or student may self-refer.
composition courses with corresponding reading courses

**Readiness for college-level writing**

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

- **ENGWR 53** (Formerly English 254)
  - Writing Center: Basic Writing Skills
  - 5-2 units
  - Individualized writing modules.
  - Open entry/exit
  - Corresponding Reading Center: ENGRD12

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

- **ENGWR 103** (Formerly English 60)
  - 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

- **ENGWR 300** (Formerly English 1A)
  - College Composition
  - 3 units
  - lecture/discussion or individualized
  - Corresponding reading levels: ENGRD310/ENGRD 312

**Transfer Level** (Transfers to CSU & UC)

- **ENGWR 301** (Formerly English 1B)
  - College Composition & Literature

- **ENGWR 302** (Formerly English 1C)
  - Advanced Composition & Critical Thinking

**Counselor**

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

- **ENGWR 104** (Formerly English 54)
  - Writing Center: Writing Skills
  - 5-2 units
  - Individualized writing modules.
  - Open entry/exit
  - Corresponding Reading Center: ENGRD117

- **ENGWR 301** (Formerly English 1B)
  - College Composition & Literature

- **ENGWR 302** (Formerly English 1C)
  - Advanced Composition & Critical Thinking

**ENGWR 300** (Formerly English 1A)
- College Composition
  - 3 units
  - lecture/discussion or individualized
  - Corresponding reading levels: ENGRD310/ENGRD 312

* Fulfills writing competency requirement for AA/AS degree.

** Pre-requisite for ENGRD300
ENGRD 12  Reading Center: Basic Reading Skills  .5-2 Units
Prerequisite: Placement through assessment process or completion of ESLR 50 with a grade of "C" or better.
Hours: 27-108 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: ENGRD 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 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 assessment.
Advisory: Concurrent enrollment in ENGWR 102 or 103.
Hours: 54 hours LEC
This course analyzes expository and argumentative essays, textbooks and literature in preparation for ENGRD 310 or 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. It will also focus on applying study strategies for comprehending and retaining information from textbooks in preparation for test. Individual work in the Learning Resource Center, Writing Across the Curriculum Program or Reading Across the Disciplines Program may be required. This course may be taken twice for credit.

ENGRD 117  Reading Center: Reading Skills  .5-2 Units
Prerequisite: Placement through assessment process.
Advisory: ENGRD 12.
Hours: 27-108 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 12th week of the semester. Units are awarded upon the successful completion of modules. May be taken four times for 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 ENGWR 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 ENGWR 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: 27-54 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, annotated reading, 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.
ENGWR 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.

ENGWR 51  Developmental Writing  4 Units  
Prerequisite: One or more units of ENGWR 53 with "credit" grade, or placement through assessment.  
Advisory: Concurrent enrollment in ENGRD 15.  
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 ENGWR 102 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.

ENGWR 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 ESLW 50 and ESLW 51 with a grade of "C" or better.  
Advisory: BUSTEC 300 or CISC 300.  
Hours: 27-108 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 courses. Registration is open through the twelfth week of the semester. Credit/No Credit only. May be taken three times.

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: AA/AS 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: 27-108 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 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 106  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: AA/AS 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 judgements. 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: Writing Technical Manuals  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 102 or 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 335  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  Technical/Professional Communication: Writing Technical Manuals  3 Units
Advisory: ENGWR 342.
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed for professionals in design technology, computer science, engineering, and communications. This course explains how to design and write technical manuals for the users, technical support staff, and developers of technical products. The course offers strategies for audience and task analysis, product learning, document design, drafting, procedure writing, and revision. Desktop publishing tools are used to produce a portfolio-quality 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: AA/AS 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.

**ENGWR 482  Honors Advanced Composition and Critical Thinking  3 Units**

Prerequisite: Cumulative GPA of 3.0 or higher; ENGWR 300 or 480 with a grade of “C” or better.
Advisory: ENGRD 310 or 312
General Education: AA/AS Area II(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is a course in critical reasoning, reading, and writing requiring a high level of competence in English composition. Complex texts (essay and book-length works) reflecting a variety of cultural, historical, and philosophical perspectives will be read, discussed, and analyzed. The course includes inductive and deductive reasoning, fallacious reasoning, and use of persuasive language. The minimum word requirement of 6,500 words will be divided among at least four formal essays, ranging from 1,000-3,000 words each, two of which will include primary and secondary research and MLA format. Several group and individual class presentations will 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: ESL 20, ESLR 20, and ESLW 20 with grades of “C” or better, or placement through the assessment process.
Hours: 27-54 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: ESLLL 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: 27-81 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.

**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 50  Intermediate-Mid Grammar**  4 Units
Prerequisite: ESLW 40 with a grade of “C” or better, or placement through the assessment process.
Advisory: Concurrent enrollment in an ESL Reading 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.

**ESL 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.

**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 levels 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.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ESLL 30</td>
<td>Novice-High Listening and Speaking</td>
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<td>Prerequisite: Placement through assessment.</td>
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<td>Advisory: Concurrent enrollment in an ESL Reading and/or Writing course at the student's assessed level.</td>
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<td>Hours: 72 hours LEC</td>
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<td>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.</td>
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<tr>
<td>ESLL 40</td>
<td>Intermediate-Low Listening and Speaking</td>
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<td>Prerequisite: ESLL 30 with a grade of “C” or better, or placement through assessment.</td>
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<td>Advisory: Concurrent enrollment in an ESL Reading and Writing course at the student’s assessed level.</td>
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<td>Hours: 72 hours LEC</td>
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<td>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.</td>
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<tr>
<td>ESLL 50</td>
<td>Intermediate-Mid Listening and Speaking</td>
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<td>Prerequisite: ESLL 40 with a grade of “C” or better or placement through assessment.</td>
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<td>Hours: 72 hours LEC</td>
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<td></td>
<td>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.</td>
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<tr>
<td>ESLL 97</td>
<td>ESL Center: Listening Skills in ESL</td>
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<td>Prerequisite: ESLL 20, ESLLR 20, and ESLW 20 with grade of “C” or better, or placement through the assessment process.</td>
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<td>Hours: 27-54 hours LAB</td>
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<td>This laboratory course enables English as a Second Language students placed at the novice-high through high-intermediate levels 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.</td>
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<tr>
<td>ESLL 310</td>
<td>Intermediate-High Listening and Speaking</td>
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<td>Advisory: concurrent enrollment in an ESL Reading and Writing course at the student's assessed level.</td>
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<td>Course Transferable to CSU</td>
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<td>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.</td>
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<td>ESLL 320</td>
<td>Advanced-Low Listening and Speaking</td>
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<td>Prerequisite: ESLL 310 with a grade of “C” or better or placement through assessment.</td>
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<td>Advisory: Concurrent enrollment in an ESL Reading and Writing skill course at the student's assessed level.</td>
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<td>Course Transferable to CSU</td>
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<td>Hours: 72 hours LEC</td>
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<td>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.</td>
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<td>ESLR 20</td>
<td>Novice Reading</td>
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<td>Advisory: One year of adult school and concurrent enrollment in ESL Reading and Writing/Speaking courses at the student's assessed levels are highly recommended.</td>
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<td>Hours: 72 hours LEC</td>
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<td>This course focuses on literal understanding of readings including basic vocabulary. There will be a focus on expanding basic vocabulary through readings, word parts, and word form activities. The concepts of using context and giving personal reactions to readings will be introduced. Credit/no credit grading only. Maybe taken twice for credit.</td>
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<tr>
<td>ESLR 30</td>
<td>Novice-High Reading</td>
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<td>Prerequisite: Placement through assessment.</td>
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<td>Hours: 72 hours LEC</td>
<td></td>
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<tr>
<td></td>
<td>This course is an introduction to reading words, phrases, and sentences in short texts for non-native speakers who plan to take college courses. It will cover core vocabulary, literal comprehension, and grammar necessary to understand short readings. Credit/no credit grading only. May be taken twice for credit.</td>
<td></td>
</tr>
<tr>
<td>ESLR 40</td>
<td>Intermediate-Low Reading</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: ESLL 30 with a grade of “C” or better or placement through assessment.</td>
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<tr>
<td></td>
<td>Advisory: Concurrent enrollment in an ESL Reading and Writing course at the student’s assessed level.</td>
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<tr>
<td></td>
<td>Hours: 72 hours LEC</td>
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<tr>
<td></td>
<td>This course focuses on developing reading skills with an emphasis on building vocabulary, literal comprehension, and fluency. Students will discuss and write about readings.</td>
<td></td>
</tr>
<tr>
<td>ESLR 50</td>
<td>Intermediate-Mid Reading</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: ESLL 40 with a grade of “C” or better, or placement through assessment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advisory: Concurrent enrollment in an ESL Listening and Speaking and Writing course at the student’s assessed level.</td>
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<tr>
<td></td>
<td>Hours: 72 hours LEC</td>
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<tr>
<td></td>
<td>This course focuses on the introduction of academic reading skills, with an emphasis on vocabulary development, literal comprehension, and dictionary skills. Course activities will include understanding, analyzing, discussing and writing responses to ideas expressed in readings.</td>
<td></td>
</tr>
</tbody>
</table>

Source: American River College Catalog 2007-2008
ESLR 97  ESL Center: Reading Skills in ESL  .5-1 Units
Prerequisite: ESL 20, ESLR 20, and ESLW 20 with grade of “C” or better, or placement through the assessment process.
Hours: 27-54 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 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 310  Intermediate-High Reading  4 Units
Prerequisite: ESLR 30 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 metaphoric themes, as applied in various cultures.

ESLW 20  Novice Writing  4 Units
Prerequisite: ESLR 30; or placement through the assessment process.
Advisory: Concurrent enrollment in ESLR 40.
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.

ESLW 30  Novice-High Writing  4 Units
Prerequisite: ESLR 30; or placement through the assessment process.
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.

ESLW 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 covers techniques essential to essay writing. Control of sentence structure in longer pieces of writing will continue to be developed.

ESLW 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 intermediate mid-level writing in English for non-native speakers who plan to take college courses. It provides instruction and practice in writing focused paragraphs with a clear beginning, middle and end. Critical thinking skills and correct grammar in writing will be stressed.

ESLW 60  Intermediate-High Writing  4 Units
Prerequisite: ESLR 50 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 high-level intermediate writing in English for non-native speakers who plan to take college courses. It provides instruction and practice in writing focused paragraphs with a clear beginning, middle and end. Critical thinking skills and correct grammar in writing will be stressed.

ESLW 86  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.

ESLW 97  ESL Center: Writing Skills in ESL  .5-1 Units
Prerequisite: ESLR 20, ESLW 20, and ESLW 20 with grades of “C” or better, or placement through the assessment process.
Hours: 27-54 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 placement through the assessment process.  
Advisory: Concurrent enrollment in an ESL Reading and 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 applies critical thinking skills to writing. Writing assignments include expository and argumentative prose (8,500 words minimum) based on analysis of a variety of readings. Students will refine summarizing and paraphrasing skills. The course requires writing a research paper with citations and bibliography.
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, historic and current fashion trends, hand and computer illustration and an internship in a fashion-related field.

Requirements for Degree 35 Units
FASHN 151  Basic Industry Sewing  2
FASHN 300  Introduction to the Fashion Industry  3
FASHN 310  Fashion Analysis/Clothing Selection  3
FASHN 320  Textiles  3
FASHN 330  History of Western World Fashion  3
FASHN 342  Fashion Illustration  3
FASHN 344  Apparel Line Development  3
FASHN 374  Pattern Making and Design  3
FASHN 378  Advanced Pattern Making and Design  3
FASHN 380  Computer Patternmaking  3
FASHN 382  Collection Design and Production  3
FASHN 497  Internship in Fashion  3

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

Fashion Design Certificate

The certificate in Fashion Design develops the skills necessary to coordinate original design concepts with manufacturing, marketing and merchandising practices. Course work concentrates on basic industry sewing, pattern drafting, historic and current fashion trends, hand and computer illustration, and textiles as they relate to the fashion industry.

Requirements for Certificate 26 Units
FASHN 151  Basic Industry Sewing  2
FASHN 300  Introduction to the Fashion Industry  3
FASHN 310  Fashion Analysis/Clothing Selection  3
FASHN 320  Textiles  3
FASHN 342  Fashion Illustration  3
FASHN 344  Apparel Line Development  3
FASHN 374  Pattern Making and Design  3
FASHN 378  Advanced Pattern Making and Design  3
FASHN 382  Collection Design and Production  3

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.

Requirements for Degree 32 Units
FASHN 300  Introduction to the Fashion Industry  3
FASHN 310  Fashion Analysis/Clothing Selection  3
FASHN 320  Textiles  3
FASHN 330  History of Western World Fashion  3
FASHN 342  Fashion Illustration  3
FASHN 395  Visual Merchandising  2
FASHN 397  Business Practices for Fashion  3
FASHN 497  Internship in Fashion  3
MGMT 362  Techniques of Management  3
MKT 300  Principles of Marketing  3

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

Fashion Merchandising Certificate

The certificate in Fashion Merchandising develops the skills necessary for jobs in the retail market. Course work concentrates on fashion coordination, promotion, visual presentation, management, merchandising and retail buying.

Requirements for Certificate 20 Units
FASHN 300  Introduction to the Fashion Industry  3
FASHN 310  Fashion Analysis/Clothing Selection  3
FASHN 320  Textiles  3
FASHN 395  Visual Merchandising  2
FASHN 397  Business Practices for Fashion  3
MKT 300  Principles of Marketing  3
FASHN 151  Basic Industry Sewing  2 Units
Hours: 18 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: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESIW 320, or placement through assessment.
Hours: 9-72 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.
Hours: 18-72 hours LEC; 60-300 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: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESIW 320, or placement through assessment.
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 provides an overview of fashion design, production, distribution, and merchandising and will give an understanding of the fashion industry as a whole. Field trips are required.

FASHN 310  Fashion Analysis  3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESIW 320, or placement through assessment.
Course Transferable to CSU
Hours: 54 hours LEC
In this course influences on fashion (social, political, cultural, technological and environmental) will be analyzed and compared with current fashion trends. The function, aesthetics and attitude of dress including image projection, perceptions and gender roles will be explored as a form of silent communication. A generational approach to consumer buying behavior and response towards fashion will be examined. Other aspects of fashion analysis will include identifying apparel details, styles and elements of design.

FASHN 320  Textiles  3 Units
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; or ESLR 320 and ESIW 320 with a grade of "C" or better; or placement through assessment process.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a study of natural and man-made fibers, methods of fabrication and finishes. Topics include the selection, use and care of modern fabrics as they relate to clothing and home furnishings. (CAN FCS 6)

FASHN 329  Work Experience in Fashion  1-4 Units
Prerequisite: Current employment or voluntary position.
Hours: 18-72 hours LEC; 60-300 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 330  History of Western World Fashion  3 Units
Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESIW 320 with a grade of "C" or better; OR placement through assessment process.
General Education: AA/AS Area I; CSU Area C1
Course Transferable to CSU
Hours: 54 hours LEC
This course provides a comprehensive survey of how fashion has been influenced by major world historical events. Selected eras of history are viewed within a cultural, political, and 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 342  Fashion Illustration  3 Units
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 344  Apparel Line Development  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 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 374  Pattern Making and Design  3 Units
Prerequisite: FASHN 151 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, ESLL 320, and ESIW 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 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.

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FASHN 378  
Advanced Pattern Making and Design  
3 Units
Prerequisite: FASHN 374.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course includes advanced pattern-making techniques to include: drafting, draping and grading. It focuses on industry methods of duplicating ready-to-wear apparel. Industry fit specifications and construction techniques will be refined. A field trip will be required.

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 342 and 374 with grades of "C" or better.
Course: 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 showcased on the runway in a fashion show.

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  
Business Practices for Fashion  
3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course addresses the practical and business aspects of the fashion industry. Topics include developing a fashion retail business, analyzing the target market and product, researching the industry, selecting a business entity and creating a buying plan. Career opportunities in retail buying and merchandising are also explored.

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>FT 200</td>
<td>Emergency Medical Technician I (5)</td>
<td>5</td>
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<tr>
<td>or PMED 100</td>
<td>Emergency Medical Technician - Basic (5)</td>
<td>5</td>
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<tr>
<td>FT 300</td>
<td>Fire Protection Organization</td>
<td>3</td>
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<tr>
<td>FT 301</td>
<td>Fire Prevention Technology</td>
<td>3</td>
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<tr>
<td>FT 302</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
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<tr>
<td>FT 303</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
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<tr>
<td>FT 304</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
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<tr>
<td>And a minimum of 15 units from the following:</td>
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<td>15</td>
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<tr>
<td>FT 110</td>
<td>Fire Apparatus</td>
<td>3</td>
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<tr>
<td>FT 130</td>
<td>Fire Company Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>FT 132</td>
<td>Fire Service Records and Reports</td>
<td>3</td>
</tr>
<tr>
<td>FT 140</td>
<td>Related Codes and Ordinances</td>
<td>3</td>
</tr>
<tr>
<td>FT 170</td>
<td>Fire Investigation</td>
<td>3</td>
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<tr>
<td>FT 180</td>
<td>Rescue Practices</td>
<td>3</td>
</tr>
<tr>
<td>FT 190</td>
<td>Fire Tactics and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>FT 192</td>
<td>Wildland Fire Control</td>
<td>3</td>
</tr>
<tr>
<td>FT 310</td>
<td>Fire Service Hydraulics</td>
<td>3</td>
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<tr>
<td>FT 320</td>
<td>Hazardous Materials</td>
<td>3</td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 110</td>
<td>Fire Apparatus</td>
<td>3</td>
</tr>
<tr>
<td>Advisory: FT 300 or FIRE 1090. Hours: 54 hours LEC</td>
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<tr>
<td>This course covers fire apparatus design, specifications and performance capabilities. It also includes the effective utilization of apparatus in fire service emergencies.</td>
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<tr>
<td>FT 130</td>
<td>Fire Company Organization and Management</td>
<td>3</td>
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<tr>
<td>Advisory: FT 300 or FIRE 1090. Hours: 54 hours LEC</td>
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<tr>
<td>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.</td>
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<tr>
<td>FT 132</td>
<td>Fire Service Records and Reports</td>
<td>3</td>
</tr>
<tr>
<td>Advisory: FT 300 or FIRE 1090. Hours: 54 hours LEC</td>
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<tr>
<td>This course covers fire department records systems, principles of report writing, applications in the area of pre-fire survey, and post-fire reporting.</td>
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<tr>
<td>FT 140</td>
<td>Related Codes and Ordinances</td>
<td>3</td>
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<tr>
<td>Advisory: FT 300 or FIRE 1090. Hours: 54 hours LEC</td>
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<tr>
<td>This course includes familiarization and interpretation of national, state and local codes, ordinances and laws which influence the field of fire prevention.</td>
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<tr>
<td>FT 170</td>
<td>Fire Investigation</td>
<td>3</td>
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<tr>
<td>Advisory: FT 300 or FIRE 1090. Hours: 54 hours LEC</td>
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<tr>
<td>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.</td>
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<tr>
<td>FT 180</td>
<td>Rescue Practices</td>
<td>3</td>
</tr>
<tr>
<td>Advisory: FT 300 or FIRE 1090. Hours: 54 hours LEC</td>
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<tr>
<td>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.</td>
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<tr>
<td>FT 190</td>
<td>Fire Tactics and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>Advisory: FT 300 or FIRE 1090. Hours: 54 hours LEC</td>
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<tr>
<td>This course includes principles of fire control through the utilization of manpower, equipment, and extinguishing agents on the fireground.</td>
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</tbody>
</table>
**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). "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 305 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.
### Foreign Languages

**Area:** Humanities  
**Dean:** Lisa Aguilera Lawrenson  
**Phone:** (916) 484-8653  
**Counseling:** (916) 484-8572

#### 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 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; IGETC Area 6  
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 411 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; review of French grammar; reading of varied texts and further study of historical and cultural background.

**FREN 412 Intermediate French**  
**4 Units**  
Prerequisite: FREN 412 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 continues development of the four basic skills through reading and interpreting various works of French literature, writing, summaries, reports and short compositions, and studying the historical and cultural background of the French-speaking world.

#### 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 of German cultural awareness.
ITAL 411 Intermediate Italian 4 Units
Prerequisite: ITAL 402 with a grade of "C" or better
General Education: AA/AS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is a continuation of ITAL 402. It includes grammar essentials, further practice in conversation and composition, and a continued study of Italian culture.

ITAL 412 Intermediate Italian 4 Units
Prerequisite: ITAL 401 with a grade of "C" or better
General Education: AA/AS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is a further development of the four basic skills: listening, speaking, reading and writing. It is a continued study of pronunciation, fundamentals of Italian grammar and Italian culture.

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 introduces basic essentials of elementary grammar, sentence structure, and conversation. It also introduces Italian character, tradition, and culture. Reading of simple prose will be included.

ITAL 402 Elementary 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 for students at the elementary or 401 level in high school Italian. Emphasis will include oral proficiency and development of Italian through conversations and discussions, both controlled and spontaneous. Students will continue the development of oral-aural skills in Italian. Conversations and discussions, both controlled and spontaneous. Emphasis will include oral proficiency and development of Italian 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 designed for students at the elementary or 401 level in high school Italian. Emphasis will include oral proficiency and development of Italian through conversations and discussions, both controlled and spontaneous. Students will continue the development of oral-aural skills in Italian. 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.

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
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.

GERM 402 Elementary German 4 Units
Prerequisite: GERM 401 with a grade of "C" or better or three years of high school German.
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 development of the four basic skills: listening, speaking, reading and writing. It is a continued study of pronunciation, fundamentals of German grammar and German culture.

GERM 411 Intermediate German 4 Units
Prerequisite: GERM 402 with a grade of "C" or better or three years of high school German.
General Education: AA/AS Area I; CSU Area 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; review of German grammar; reading of varied texts and further study of historical and cultural background.

GERM 412 Intermediate German 4 Units
Prerequisite: GERM 411 with a grade of "C" or better or four years of high school German.
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course continues development of the four basic skills through reading and interpreting various works of German literature, continue writing summaries, reports and short compositions, and studying the historical and cultural background of the German speaking world.

JAPAN 101 Conversational Japanese, Elementary 3 Units
Hours: 54 hours LEC
This class teaches pronunciation, intonation, basic vocabulary, idioms, and grammar of spoken Japanese. The grammar emphasizes word order, postpositions and some conjugation in simple sentences. The course includes introduction to Japanese culture. This course may be repeated once for credit.

JAPAN 405 Japanese Writing 1 Unit
Prerequisite: Japanese 401.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This is a course in the study of written scripts in the Japanese language. Fundamentals of the Japanese written language will be taught with an emphasis on reading and writing (Hiragana, Katakana, and Kanji) common in daily usage. This course may be taken twice.

JAPAN 101 Conversational Japanese, Elementary 3 Units
Prerequisite: JAPAN 401 with a grade of "C" or better
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is designed for students at the elementary or 401 level in Japanese. Discussions on Japanese culture continue. Students are required to learn Hiragana script. The course includes introduction to Japanese culture. This course may be repeated once for credit.

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 class teaches pronunciation, intonation, basic vocabulary and grammar of spoken Japanese. The grammar emphasis is word order, postposition and some conjunction in simple sentences. Students are required to learn Hiragana script. The course includes introduction to Japanese culture.

JAPAN 402 Elementary Japanese 4 Units
Prerequisite: JAPAN 401 with grade of "C" or better
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 72 hours LEC
Japanese 402 continues teaching vocabulary, idioms, and grammar including more complex subordinate phrases and clauses. In addition to Hiragana, students are required to learn Katakana and simple Kanji ideographs. Discussions on Japanese culture continue.
**Mandarin**

**MAND 101**  
**Conversational Mandarin, Elementary**  
3 Units

*Hours: 54 hour 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 hour 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/AS Area I; IGETC Area 6*

*Course Transferable to UC/CSU*

*Hours: 72 hours LEC*

This beginning course in Mandarin Chinese emphasizes pronunciation, 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/AS 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/AS Area I; IGETC Area 3B*

*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/AS 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/AS 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/AS 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: 27-54 hour 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 401  Elementary Spanish I Multimedia Enhancement  2 Units
Course Transferable to CSU
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. 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. Opportunities to practice and speak Spanish in both small and large group formats will be provided in the course. Credit/no credit only.

SPAN 410  Elementary Spanish II Multimedia Enhancement  2 Units
Course Transferable to CSU
Corequisite: SPAN 401.
Course Transferable to CSU
Advisory: SPAN 402.
Course Transferable to UC/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. Credit/no credit only.

SPAN 411  Intermediate Spanish I Multimedia Enhancement  2 Units
Prerequisite: SPAN 402 with grade of "C" or better or three years of high school Spanish
Course Transferable to UC/CSU
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 72 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 the course. Credit/no credit only.

SPAN 412  Intermediate Spanish II Multimedia Enhancement  2 Units
Prerequisite: SPAN 402 with grade of "C" or better or three years of high school Spanish
Course Transferable to UC/CSU
General Education: AA/AS Area I; CSU Area C; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 72 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 the course. Credit/no credit only.

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 the course. 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.

SPAN 437  Spanish for Professionals, Intermediate  
3 Units
Prerequisite: SPAN 411 with a grade of “C” or better or four years of high school Spanish.
Course Transferable to CSU
Hours: 54 hours LEC
This is an intermediate course designed for persons in law enforce-ment, business and finance, social services and medical person-nel. The emphasis of the course is on acquiring verbal facility in interviewing, collecting and analyzing data, giving instructions, and general courtesies. The course will help students to acquire language proficiency while reviewing and broadening the grammar foundation attained in elementary Spanish. It will introduce specific vocabulary necessary for professionals to successfully communicate in a profes-sional situation, such as an interview. Cultural and behavioral atti-tudes appropriate for relating to persons of Hispanic heritage will be compared with other cultures. This course may be taken twice.
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.

NOTE: All courses require a grade of “C” or better and the National Board Examination must be completed before graduation.

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 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  57.5-58.5 Units

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<td>Introduction to Funeral Service</td>
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<td>BIOL 102</td>
<td>Introduction to Concepts of Human Anatomy and Physiology</td>
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<th>1st Semester</th>
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<td>Funeral Service Law and Ethics</td>
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### 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

Advisory: BUS 310 or ENGWR 103; 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.

### FSE 111 Funeral Directing II 2 Units

Prerequisite: FSE 110 with a grade of “C” or better.  

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.

### 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.  

Hours: 36 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 130.  

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: FSE 110 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 introduces law and the judicial system as they pertain to the embalming or restorative art process are emphasized.

### FSE 150 Funeral Service Management 3 Units

Prerequisite: FSE 111 with a grade of “C” or better.  

Hours: 54 hours LEC  

This course is designed to introduce the general practices of funeral 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.

### FSE 155 Merchandising in the Funeral Service Industry 3 Units

Prerequisite: FSE 110 with a grade of “C” or better.  

Corequisite: FSE 111.  

Hours: 54 hours LEC  

This course introduces the student to merchandising as it applies to the funeral 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.

### FSE 160 Funeral Service Law and Ethics 3 Units

Corequisite: FSE 110.  

Advisory: BUS 310 or ENGWR 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: 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.

**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 an 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.
The General Education Transfer degree is designed for students planning to transfer to a California State University (CSU) or University of California (UC) campus. Completion of this degree ensures that the student has met the requirements to certify either the CSU General Education Pattern or the Intersegmental General Education Transfer Curriculum (IGETC).

Student must complete a minimum of 39 units required to satisfy either the CSU general education requirements or IGETC general education requirements. See the CSU and IGETC lists in the ARC general catalog or consult with a counselor.

**Associate Degree Requirements:** The General Education: 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.
Geometry 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 19-20 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>GEOG 300 1</td>
<td>Physical Geography: Exploring Earth’s Environmental Systems (3)</td>
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<td>GEOG 301 1</td>
<td>Physical Geography Laboratory</td>
<td>1</td>
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<tr>
<td>GEOG 310 3</td>
<td>Human Geography: Exploring Earth’s Cultural Landscapes (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 330 3</td>
<td>Introduction to Geographic Information Systems (3)</td>
<td>3</td>
</tr>
<tr>
<td>or GEOG 334 4</td>
<td>Introduction to Desktop GIS (4)</td>
<td></td>
</tr>
<tr>
<td>or CISC 310 3</td>
<td>Introduction to Computer Information Science (3)</td>
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<tr>
<td>PSYC 330 3</td>
<td>Introductory Statistics for the Behavioral Sciences (3)</td>
<td>3</td>
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<tr>
<td>or STAT 301 3</td>
<td>Introduction to Probability and Statistics (3)</td>
<td>3</td>
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<tr>
<td>And a minimum of 6 units from the following:</td>
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<tr>
<td>ANTH 310 3</td>
<td>Cultural Anthropology (3)</td>
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<tr>
<td>BIOL 352 3</td>
<td>Conservation Biology (3)</td>
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<tr>
<td>or BIOL 310 4</td>
<td>General Biology (4)</td>
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<tr>
<td>or BIOL 305 4</td>
<td>Natural History (4)</td>
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<tr>
<td>ECON 304 3</td>
<td>Principles of Microeconomics (3)</td>
<td>3</td>
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<tr>
<td>or ECON 302 3</td>
<td>Principles of Macroeconomics (3)</td>
<td>3</td>
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<tr>
<td>GEOG 306 3</td>
<td>Weather and Climate (3)</td>
<td>3</td>
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<tr>
<td>GEOG 312 3</td>
<td>Geography of California (3)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 310 3</td>
<td>Field Studies in Geography (0.5 - 4)</td>
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<td>GEOL 330 3</td>
<td>Physical Geology (3)</td>
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<td>GEOL 301 3</td>
<td>Physical Geology Laboratory (1)</td>
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<tr>
<td>GEOL 350 3</td>
<td>Introduction to Oceanography (3)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 331 2</td>
<td>Introduction to Oceanography Lab (1)</td>
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</tr>
<tr>
<td>HIST 300 3</td>
<td>History of Western Civilization (3)</td>
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<tr>
<td>or HIST 302 3</td>
<td>History of Western Civilization (3)</td>
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<tr>
<td>or HIST 327 3</td>
<td>History of the Chicano/Mexican American (3)</td>
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<tr>
<td>or HIST 325 3</td>
<td>History of Asian/Pacific Americas (3)</td>
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<tr>
<td>or HIST 320 3</td>
<td>History of the United States: African-American Emphasis (3)</td>
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<tr>
<td>or HIST 311 3</td>
<td>History of the United States (3)</td>
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<tr>
<td>or HIST 310 3</td>
<td>History of the United States (3)</td>
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<tr>
<td>HUM 320 3</td>
<td>Asian Humanities (3)</td>
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<tr>
<td>PHIL 350 3</td>
<td>Philosophy of Religion (3)</td>
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<tr>
<td>POLS 310 3</td>
<td>Introduction to International Relations (3)</td>
<td>3</td>
</tr>
<tr>
<td>SOC 300 3</td>
<td>Introductory Sociology (3)</td>
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</tbody>
</table>

1A 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) is a technology used to capture, sort, transform, manage, analyze, model, and display spatial information. This technology has a wide range of applications in planning and management decisions by government agencies, business, and industry. The Associate of Science degree in GIS combines technical GIS coursework with courses in subject areas to which GIS is commonly applied such as biology, natural resources, marketing, and real estate. Refer to the department web site (http://www.arc.losrios.edu/~earthsci/GIS/GISindex.html) for a suggested sequence of courses.

Career Opportunities

According to an Environmental Sciences 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 in GIS include 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.

Requirements for Degree 37-40 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GEOG 330 4</td>
<td>Introduction to Geographic Information Systems (3)</td>
<td>3</td>
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<tr>
<td>GEOG 334 4</td>
<td>Introduction to Desktop GIS</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 340 3</td>
<td>Cartographic Design for GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 344 3</td>
<td>Spatial Analysis and Modeling in GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 350 3</td>
<td>Data Acquisition in GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 354 4</td>
<td>Introduction to the Global Positioning System (GPS)</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 360 3</td>
<td>Database Design and Management in GIS</td>
<td>3</td>
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<tr>
<td>GEOG 362 3</td>
<td>Advanced Database Design and Management in GIS (3)</td>
<td>3</td>
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<tr>
<td>or GEOG 386 4</td>
<td>Using GIS for Disaster Management (3)</td>
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<tr>
<td>GEOG 375 4</td>
<td>Introduction to GIS Programming (4)</td>
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<tr>
<td>or GEOG 376 3</td>
<td>Intermediate GIS Programming (3)</td>
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<tr>
<td>GEOG 380 4</td>
<td>Advanced Desktop GIS</td>
<td>4</td>
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<tr>
<td>GEOG 498 6</td>
<td>Work Experience in Geography (1 - 4)</td>
<td>6</td>
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</tbody>
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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 320 3</td>
<td>Introduction to Archaeology and World Prehistory (3)</td>
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<tr>
<td>BIOL 300 3</td>
<td>The Foundations of Biology (3)</td>
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<tr>
<td>BIOL 303 4</td>
<td>Survey of Biology (4)</td>
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<tr>
<td>BIOL 310 4</td>
<td>General Biology (4)</td>
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<td>BIOL 352 3</td>
<td>Conservation Biology (3)</td>
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<td>BUS 110 3</td>
<td>Business Economics (3)</td>
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<td>CHEM 320 3</td>
<td>Environmental Chemistry (4)</td>
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<tr>
<td>FT 300 3</td>
<td>Fire Protection Organization (3)</td>
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<tr>
<td>GEOG 300 3</td>
<td>Physical Geography: Exploring Earth’s Environmental Systems (3)</td>
<td>3</td>
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<tr>
<td>GEOG 308 3</td>
<td>Introduction to Oceanography (3)</td>
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<tr>
<td>GEOG 310 3</td>
<td>Human Geography: Exploring Earth’s Cultural Landscapes (3)</td>
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<tr>
<td>GEOL 300 3</td>
<td>Physical Geology (3)</td>
<td>3</td>
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<tr>
<td>GEOL 305 3</td>
<td>Earth Science (3)</td>
<td></td>
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<tr>
<td>GEOL 330 4</td>
<td>Introduction to Oceanography (3)</td>
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<tr>
<td>MKT 300 3</td>
<td>Principles of Marketing (3)</td>
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</table>
Geographic Information Systems (GIS) - Interdisciplinary Applications Certificate

Geographic Information Systems (GIS) is a powerful technology used to capture, sort, transform, manage, analyze, and display spatial information. This technology has a wide range of applications in planning and management decisions by government agencies, business, and industry. The certificate provides a solid technical background in GIS concepts, including spatial analysis, database design, the global positioning system (GPS), and cartography. Completion of the certificate requires an internship in GIS. Refer to the department web site (http://www.arc.losrios.edu/~earthsci/GIS/GISIndex.html) for a suggested sequence of classes.

Career Opportunities

According to an Environmental Sciences 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 to meet a 60-unit total. See ARC graduation requirements.

Requirements for Certificate

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>GEOG 330</td>
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<td>GEOG 334</td>
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<td>GEOG 340</td>
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<td>GEOG 344</td>
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<td>GEOG 350</td>
<td>3</td>
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<td>GEOG 354</td>
<td>3</td>
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<td>GEOG 360</td>
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<td>GEOG 362</td>
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<td>or GEOG 376</td>
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<tr>
<td>GEOG 380</td>
<td>4</td>
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<tr>
<td>GEOG 498</td>
<td>1-4</td>
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</table>

As a suggested sequence of classes, the certificate requires an internship in GIS. Refer to the department web site (http://www.arc.losrios.edu/~earthsci/GIS/GISIndex.html) for a suggested sequence of classes.
GEOL 309 Introduction to Oceanography Lab 1 Unit
Same As: GEO 331
Corequisite: GEO 308 or GEO 330
Advisory: GEO 300 or GEO 300
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 GEO 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/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4E
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course 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/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4E
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a global survey of the world's 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/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4C; 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/AS 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 Desktop GIS 4 Units
Advisory: CISC 300.
Course Transferable to CSU
Hours: 60 hours LEC; 36 hour LAB
This course provides the foundation for and experience with using desktop geographic information system software. It also provides the conceptual overview and practice needed to take advantage of the software's display and attribute querying functions. Emphasis is placed on basic GIS software functionality, getting database construction, spatial analysis/querying, cartographic presentation, and management. Software capabilities for spatial analysis and network analysis are explored. 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 hour 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 information systems 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. Applications of such methods will be presented using empirical data.

GEOG 350 Data Acquisition in GIS 3 Units
Prerequisite: GEOG 330 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to the techniques, theory, and practical experience necessary to acquire, convert, and create spatial data. Topics include acquisition of existing GIS data, metadata, formatting and format conversion of digital GIS data, creating digital data utilizing digital cameras and scanners, the utilization of remotely sensed data, and use of the Global Positioning System.

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 356 Database Design and Management in GIS 3 Units
Prerequisite: GEOG 330 with a grade of “C” or better.
Advisory: CISC 300, CISA 320, CISA 321.
Course Transferable to CSU
Hours: 54 hours LEC
This course examines the principles of database management and design including conversion fundamentals, modeling techniques and strategic planning. The needs, alternatives, and pitfalls of database development and conversion are discussed. In addition, this course also includes the examination of various types of data applicable to GIS and examines relevant issues including hardware and software requirements. Particular attention is paid to determining the appropriate methodology, developing a conversion plan, and data quality assurance. This course includes hands-on practical exercises in database management skills.

GEOG 375 Introduction to GIS Programming 4 Units
Prerequisite: GEOG 330 with a grade of “C” or better.
General Education: AA/AS Area II(a)
Course Transferable to CSU
Hours: 60 hours LEC, 36 hours LAB
This course is an introduction to 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 380 Intermediate Desktop GIS with Applications 4 Units
Prerequisite: GEOG 330 and one course from the following: GEOG 340, 344, 350, or 360 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course provides an overview of a full-feature, powerful desktop GIS software (such as ArcGIS 8.x). Software will be used to apply reprocessing concepts to solving geographic problems. Emphasis is placed on the software’s topological data model, geodatabase model, creating and editing spatial data to produce map displays, working with attribute data, and the basics of grid processing. This course may be taken four times on a different software package or version.

GEOG 383 Introduction to Web Based GIS Application Development 4 Units
Prerequisite: GEOG 330 and CJSW 300.
Advisory: CISCW 310.
Course Transferable to CSU
Hours: 63 hours LEC; 27 hours LAB
This course introduces the development of web-based GIS solutions. Web-authoring tools and Internet map servers (such as ArcIMS) will be used to teach the techniques of Internet mapping and interactive user interface design for GIS applications. Focus will be on the theories and principles behind Internet mapping to perform spatial analysis, on GIS application development, and on web design for Internet mapping systems.

GEOG 385 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: 3-24 hours LEC; 18-144 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 Geographic Information Systems 1-3 Units**

*Prerequisite: Placement in an agency, private business, non-profit organization, or other entity.*

*Corequisite: GEOG 330 and student must be enrolled in a minimum of 7 units, including this course.*

*Course Transferable to CSU*

*Hours: 18 hours LEC; 75-225 hours LAB*

This course is a directed field study program that provides students with an opportunity to apply classroom instruction in geographic information systems to real-world GIS projects in the community. Students will be under the supervision of an advisor from the college while participating in a short-term work experience program in business or government agency.
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, ENGWR 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, ENGWR 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
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; availability and exploitation of natural resources, waste disposal and global climate change. Humans as a force in environmental change will be emphasized. The course is designed to address interests in geology, engineering, environmental studies, geography, and science education. One field trip is required. Not open to students who have competed GEOG 307.

**GEOL 330 Introduction to Oceanography 3 Units**
Same As: GEOG 308
Advisory: GEOL 300 or 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 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 sea-floor 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 volca-
nism, plutonism, deformation, sedimentation, glaciation, and fluvial
activity will be studied as displayed in our western parks and monu-
ments. One field trip is required.

GEOL 345 Geology of California  3 Units
General Education: AA/AS Area IV; CSU Area B1
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 econom-
ics majors. One field trip is required.

GEOL 390 Field Studies in Geology  .5-4 Units
Same As: GEOG 390
Course Transferable to CSU
Hours: 3-24 hours LEC; 18-144 hours LAB
This course involves field trips to selected locations of geologic inter-
est. Course content varies according to field trip destination but may
include topics in physical geology, environmental geology, economic
geology, and/or introduction to tools and techniques used for geosci-
cences 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 destina-
tions.
The Gerontology program at American River College offers continuing education courses for RNs, LVNs, CNAs, RCFC 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)**

<table>
<thead>
<tr>
<th>Core Requirements for Degree or Certificate</th>
<th>30 Units</th>
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<tbody>
<tr>
<td>BUS 310 Business Communications (3)</td>
<td>3</td>
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<tr>
<td>or ENGWR 103 Practical Communication (3)</td>
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<tr>
<td>or ENGWR 390 College Composition (3)</td>
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<tr>
<td>GERON 300 Sociology of Aging (3)</td>
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<tr>
<td>or SOC 335 Sociology of Aging (3)</td>
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<tr>
<td>GERON 302 Psychology of Aging: Adult Development and Aging (3)</td>
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<td>or PSYC 374 Psychology of Aging: Adult Development and Aging (3)</td>
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<tr>
<td>GERON 311 Social Services Designee: Legal Issues and End-of-Life Decisions</td>
<td>1</td>
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<tr>
<td>GERON 320 Techniques for Communicating with and Validating Older Adults</td>
<td>3</td>
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<td>GERON 334 Reminiscence Therapy (3)</td>
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<tr>
<td>or PSYC 379 Reminiscence Therapy (3)</td>
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<tr>
<td>GERON 335 Wellness for Older Adults</td>
<td>3</td>
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<tr>
<td>GERON 340 Nutrition for Healthy Aging (3)</td>
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<td>or NUTRI 304 Nutrition for Healthy Aging (3)</td>
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<td>GERON 360 Ethnic Diversity and Aging</td>
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<td>GERON 362 Biology of Aging</td>
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<td>GERON 366 Coping with Death and Related Bereavement</td>
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<td>GERON 368 Mental Health and Aging</td>
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<tr>
<td>And a minimum of 6 units from the following:</td>
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<tr>
<td>GERON 490 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.

**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 goods and services to senior adults

**Gerontology: Business Degree Requirements**

<table>
<thead>
<tr>
<th>Gerontology: Business Degree Requirements</th>
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<tbody>
<tr>
<td>Core Requirements</td>
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<tr>
<td>And a minimum of 9 units from the following:</td>
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<tr>
<td>ACCT 101 Fundamentals of College Accounting (3)</td>
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<tr>
<td>or ACCT 301 Financial Accounting (4)</td>
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<tr>
<td>BUS 105 Business Mathematics (3)</td>
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<tr>
<td>or BUS 110 Business Economics (3)</td>
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<tr>
<td>BUS 230 Concepts in Personal Finance (3)</td>
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<td>or ECON 320 Concepts in Personal Finance (3)</td>
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<tr>
<td>BUS 340 Managing Diversity in the Workplace (3)</td>
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<tr>
<td>GERON 304 Ethical Issues and Client’s Rights (3)</td>
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<tr>
<td>or HSER 310 Ethical Issues and Client’s Rights (3)</td>
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<tr>
<td>MGMT 340 Introduction to Modern Management (3)</td>
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<tr>
<td>or MGMT 362 Techniques of Management (3)</td>
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<td>MGMT 340 Introduction to Management Functions (3)</td>
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**Case Management/Social Services Degree Requirements**

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<tr>
<td>GERON 310 Social Service Designee: Role and Responsibility (2.5)</td>
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<td>GERON 312 Social Service Designee: Fieldwork (1)</td>
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<td>HSER 300 Introduction to Human Services (3)</td>
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<td>HSER 310 Ethical Issues and Client’s Rights (3)</td>
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<tr>
<td>or GERON 304 Ethical Issues and Client’s Rights (3)</td>
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<td>HSER 330 Issues of Diverse Populations (3)</td>
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<tr>
<td>or PSYC 365 Issues of Diverse Populations (3)</td>
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</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

- ART 320 Design: Fundamentals (3)
- IDES 300 Fundamentals of Interior Design (3)
- IDES 350 Beginning Interior Design Studio (3)
- IDES 354 Interior Environment and Space Planning (3)

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

- AH 110 Medical Language for Health-Care Providers (3)
- AH 120 Introduction to Concepts of Human Anatomy and Physiology (4)
- 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: 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: Social Policy/Advocacy Degree Requirements 39 Units

Core Requirements 30

And a minimum of 9 units from the following: 9

- GERON 430 Introduction to Activity Coordinator (0.5)
- GERON 450 Interviewing and Counseling Techniques with Elderly (0.5)
- GERON 454 Hearing and Speech - Age Changes (0.5)
- GERON 456 Documentation: State and Federal Regulations Part I (0.5)
- GERON 458 Documentation: State and Federal Regulations Part II (0.5)
- GERON 460 Etiology of Illness in Later Life (0.5)
- GERON 462 Social and Psychological Forces of Aging (0.5)
- GERON 464 Dementia: Behaviors and Activity (0.5)
- GERON 466 Effective Leadership Skills (0.5)
- GERON 468 Community Agencies and Resources (0.5)
- GERON 450 Needs-Based Programming (0.5)
- GERON 452 Creating an Activity Program (0.5)
- GERON 454 Directed Fieldwork Experience (0.5)
- PET 312 Theory and Techniques of Adapted Physical Education (3)
- PET 313 Laboratory in Adapted Physical Education (1 - 2)
- RECR 300 Introduction to Recreation and Leisure Services (3)
- RECR 310 Outdoor Recreation (3)
- RECR 320 Recreation Activity Leadership (3)

Prerequisite required for NURSE 101.
Gerontology: Social Policy Concentration Requirements 39 Units

<table>
<thead>
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<tr>
<td>GERON 304</td>
<td>Ethical Issues and Client’s Rights (3)</td>
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<tr>
<td>or HSER 310</td>
<td>Ethical Issues and Client’s Rights (3)</td>
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<tr>
<td>POLS 301</td>
<td>Introduction to Government: United States (3)</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>SPEECH 301</td>
<td>Public Speaking (3)</td>
</tr>
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</table>

Associate Degree Requirements: The Gerontology: Associate Arts (AA.) 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

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<td>or ECON 320</td>
<td>Concepts in Personal Finance (3)</td>
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<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace (3)</td>
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<tr>
<td>BUS 340</td>
<td>Business Law (3)</td>
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<td>GERON 304</td>
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<tr>
<td>or HSER 310</td>
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<td>or MGMT 300</td>
<td>Introduction to Modern Management (3)</td>
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<td>or MGMT 362</td>
<td>Techniques of Management (3)</td>
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</table>

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

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<tr>
<td>GERON 310</td>
<td>Social Service Designee: Role and Responsibility (2.5)</td>
</tr>
<tr>
<td>GERON 312</td>
<td>Social Service Designee: Fieldwork (1)</td>
</tr>
<tr>
<td>HSER 300</td>
<td>Introduction to Human Services (3)</td>
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<tr>
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<tr>
<td>or PSYC 365</td>
<td>Issues of Diverse Populations (3)</td>
</tr>
<tr>
<td>HSER 340</td>
<td>Introduction to Chemical Dependency (3)</td>
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<td>or PSYC 400</td>
<td>Introduction to Chemical Dependency (3)</td>
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<tr>
<td>PSYC 390</td>
<td>Psychology of Death and Dying (3)</td>
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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

<table>
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<tr>
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<tr>
<td>ART 320</td>
<td>Design: Fundamentals (3)</td>
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<td>IDES 300</td>
<td>Fundamentals of Interior Design (3)</td>
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<td>IDES 330</td>
<td>Beginning Interior Design Studio (3)</td>
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<td>IDES 334</td>
<td>Interior Environment and Space Planning (3)</td>
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<td>PSYC 365</td>
<td>Issues of Diverse Populations (3)</td>
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<tr>
<td>PET 312</td>
<td>Theory and Techniques of Adapted Physical Education (3)</td>
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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

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<tr>
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<tr>
<td>AH 110</td>
<td>Medical Language for Health-Care Providers (3)</td>
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<tr>
<td>BIOL 102</td>
<td>Introduction to Concepts of Human Anatomy and Physiology (4)</td>
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<tr>
<td>or BIOL 115</td>
<td>Basic Anatomy and Physiology (3)</td>
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<tr>
<td>GERON 304</td>
<td>Ethical Issues and Client’s Rights (3)</td>
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<tr>
<td>or HSER 310</td>
<td>Ethical Issues and Client’s Rights (3)</td>
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<tr>
<td>GERON 350</td>
<td>Physical Therapy Aide (3)</td>
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<td>or NURSE 360</td>
<td>Physical Therapy Aide (3)</td>
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<tr>
<td>NURSE 100</td>
<td>Nurse Assistant (6)</td>
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<tr>
<td>NURSE 101</td>
<td>Home Health Aide (2)</td>
</tr>
<tr>
<td>PET 312</td>
<td>Theory and Techniques of Adapted Physical Education (3)</td>
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</table>
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 seniors.

Career Opportunities

Entry-level positions with private industry, government and non-profit agencies providing recreational services to seniors.

Gerontology: Recreation Certificate 39 Units
Core Requirements 30
And a minimum of 9 units from the following: 9
GERON 430 Introduction to Activity Coordinator (0.5)
GERON 452 Interviewing and Counseling Techniques with Elderly (0.5)
GERON 434 Hearing and Speech - Age Changes (0.5)
GERON 436 Documentation: State and Federal Regulations Part I (0.5)
GERON 438 Documentation: State and Federal Regulations Part II (0.5)
GERON 440 Etiology of Illness in Later Life (0.5)
GERON 442 Social and Psychological Forces of Aging (0.5)
GERON 444 Dementia: Behaviors and Activity (0.5)
GERON 446 Effective Leadership Skills (0.5)
GERON 448 Community Agencies and Resources (0.5)
GERON 450 Needs-Based Programming (0.5)
GERON 452 Creating an Activity Program (0.5)
GERON 454 Directed Fieldwork Experience (0.5)
PET 312 Theory and Techniques of Adapted Physical Education (3)
PET 313 Laboratory in Adapted Physical Education (1 - 2)
RECR 300 Introduction to Recreation and Leisure Services (3)
RECR 310 Outdoor Recreation (3)
RECR 320 Recreation Activity Leadership (3)

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: Advocacy Concentration Requirements 39 Units
Core Requirements 30
And a minimum of 9 units from the following: 9
GERON 304 Ethical Issues and Client’s Rights (3)
or HSRR 310 Ethical Issues and Client’s Rights (3)
MGMT 362 Techniques of Management (3)
POLS 301 Introduction to Government: California (3)
SPEECH 301 Public Speaking (3)

Gerontology: Social Policy/Advocacy Certificate 39 Units
Core Requirements 30
And a minimum of 9 units from the following: 9
GERON 304 Ethical Issues and Client’s Rights (3)
or HSRR 310 Ethical Issues and Client’s Rights (3)
POLS 301 Introduction to Government: United States (3)
HSRR 330 Issues of Diverse Populations (3)
or PSYC 365 Issues of Diverse Populations (3)
SPEECH 301 Public Speaking (3)

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
GERON 450 Introduction to Activity Coordinator 0.5
GERON 452 Interviewing and Counseling Techniques with Elderly 0.5
GERON 454 Hearing and Speech - Age Changes 0.5
GERON 456 Documentation: State and Federal Regulations Part I 0.5
GERON 458 Documentation: State and Federal Regulations Part II 0.5
GERON 440 Etiology of Illness in Later Life 0.5
GERON 442 Social and Psychological Forces of Aging 0.5
GERON 444 Dementia: Behaviors and Activity 0.5
GERON 446 Effective Leadership Skills 0.5
GERON 448 Community Agencies and Resources 0.5
GERON 450 Needs-Based Programming 0.5
GERON 452 Creating an Activity Program 0.5
GERON 454 Directed Fieldwork Experience 0.5

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
GERON 320 Program Assistant 2

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
GERON 310 Social Service Designee: Role and Responsibility 2.5
GERON 311 Social Service Designee: Legal Issues and End-of-Life Decisions 1
GERON 312 Social Service Designee: Fieldwork 1
GERON 300 Sociology of Aging 3 Units
Same As: SOC 335
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.
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 SOC 335.

GERON 302 Psychology of Aging: Adult Development and Aging 3 Units
Same As: PSYC 374
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.
General Education: AA/AS 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 300
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: 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 306 Social Service Designee: Role and Responsibility 2.5 Units
Advisory: ENGWR 102 or ENGRD 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: 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 309 Social Services Designee: Legal Issues and End-of-Life Decisions 1 Unit
Advisory: ENGWR 102 or ENGRD 103, and ENGRD 116 or ESLR 320, ESWL 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 310 Health, Retirement, and Aging 3 Units
Advisory: ENGWR 102 or 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: 54 hours LEC
This course covers the role of the Social Services Designee in long-term care. It also covers documentation for the Social Services Designee work in long-term care.

GERON 311 Social Services Designee: Fieldwork 1 Unit
Advisory: GERON 310, 311.
Prerequisites: GERON 310, 311.
Advisory: ENGWR 102 or ENGRD 116 or ESLR 320, ESWL 320 or placement through assessment process.
Course Transferable to CSU
Hours: 27 hours LAB
This course provides supervised fieldwork in the role of social services designee in long-term care facility.

GERON 312 Social Service Designee: Fieldwork 1 Unit
Advisory: GERON 310, 311.
Prerequisites: GERON 310, 311.
Advisory: ENGWR 102 or ENGRD 116 or ESLR 320, ESWL 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 316 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 Techniques for Communicating with and Validating Older Adults 3 Units
Same As: PSYC 378
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.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the basic theory, techniques, and experiences for communication with, validation of, and stimulation of the elderly at different cognitive levels. Not open to students who have completed PSYC 378.

GERON 334 Reminiscence Therapy 3 Units
Same As: PSYC 379
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.
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the basic theory and techniques of Reminiscence Therapy and provides experience in planning, facilitating, and evaluating reminiscence groups with the elderly in an institutional setting. Not open to students who have completed PSYC 379.

GERON 335 Wellness for Older Adults 3 Units
Advisory: ENGWR 102 or 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: 54 hours LEC
This course explores positive lifestyle choices throughout life which have a positive effect on health and well being. Topics include exercise, nutrition, stress management, chronic disease, and adaptations for disability.

GERON 340 Nutrition for Healthy Aging 3 Units
Same As: NUTR 324
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: 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 NUTRI 324.

**GERON 350 Physical Therapy Aide** 3 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: 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 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 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 problem-solving 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 424 Movement with Meaning** .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 will introduce the importance of movement for seniors and provide examples adapted to specific chronic conditions. Topics covered are Parkinson’s, multiple sclerosis, osteoarthritis, osteoporosis, and Alzheimer’s and other dementias. Credit/No Credit only.

**GERON 430 Introduction to Activity Coordinator** .5 Units
Advisory: ENGWR 102 or 103, and ENGRD 116 OR ESLR 320 and ESLW 320.
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 will include roles and responsibility, program planning, utilizing volunteers, budget, and working as a team. Credit/No Credit only.

**GERON 432 Interviewing and Counseling Techniques with Elderly** .5 Units
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 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 434 Hearing and Speech - Age Changes** .5 Units
Corequisite: GERON 432.
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 age-related changes in speech and hearing. The techniques for working with impaired older adults and development of positive communication with seniors will be emphasized. Credit/No Credit only.
GERON 436  Documentation: State and Federal Regulations Part I  .5 Units
Corequisite: GERON 434.
Advisory: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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
Corequisite: GERON 450.
Advisory: ENGRD 116 or ESLR 320, ESLW 320 or placement through assessment process.
Course Transferable to CSU
Hours: 16 hours LEC, 60-225 hours LAB
This course provides supervised practical experience working with the elderly through placement in nursing facilities, day care, respite
This course explores adaptations to the home environment to promote safety and independence for those with disabilities. Topics include assessment, durable equipment, home modifications and resources. Credit/No Credit only.

GERON 1003 Intergenerational Family Dynamics .5 Units
Hours: 9 hours LEC
This course focuses on changing dynamics in the family as members are confronted with their own developmental stages and issues related to the aging process. A family systems theory approach is used to examine and analyze communication patterns, areas of conflict and coping strategies in the family. Credit/No Credit only.

GERON 1004 Pharmacology and Aging .5 Units
Hours: 9 hours LEC
This course is an overview of drugs commonly prescribed for the elderly. It also examines how the aging process impacts medication effects, compliance, and adverse reactions. Drug therapy and interactions are also covered. Credit/No Credit only.

GERON 1006 Parkinson’s Disease and Other Movement Disorders .5 Units
Hours: 9 hours LEC
This course explores the current knowledge of Parkinson’s Disease and other movement disorders. Topics include medical treatments and coping mechanisms. Credit/No Credit only.

GERON 1008 Validation: Theory and Practice .5 Units
Hours: 9 hours LEC
This course presents Validation theory as a communication technique used with individuals with differing levels of cognitive ability. Criteria for evaluating stages of dementia and the selection of appropriate techniques are covered. Credit/No credit only.

GERON 1010 Understanding Licensed Residential Care .5 Units
Hours: 9 hours LEC
This course is an introduction to residential care and the role of regulators. Topics include regulatory function and perspective, function of the California Community Care Licensing Division, and rights and responsibilities of licensees. Credit/No Credit only.

GERON 1011 Aging Experience in Asian Families .5 Units
Hours: 9 hours LEC
This course examines the aging experience unique to Asian families. The impact of culture, societal expectations and their effect on family roles, values and beliefs and how these affect care giving is discussed. Focus is on strategies for dealing with stress and social support services for Asian families. Credit/No Credit only.

GERON 1013 Protecting Your Back .5 Units
Hours: 9 hours LEC
This course examines proper spine care and body mechanics. Proper exercises to prevent or minimize back injuries are demonstrated. Credit/No Credit only.

GERON 1014 Aging and Long-term Care .5 Units
Hours: 9 hours LEC
This course provides a broad knowledge of gerontology and long-term care. It covers biological and psychosocial changes of age, dilemmas facing caregivers and care receivers, and decision making when an individual needs long-term care.

GERON 1015 Diabetes and Aging .5 Units
Hours: 9 hours LEC
This course examines the causes and risk factors associated with diabetes, focusing on how the aging body influences these risk factors and the course of the disease. Recommendations for lifestyle changes that can reduce risks and complications associated with diabetes are also presented. Credit/No credit only.

GERON 1016 Issues in Gerontology as Seen through Film .5 Units
Hours: 9 hours LEC
This course examines certain aspects of the aging experience and how media influences society’s perception of age by viewing selected excerpts from films dealing with aging issues. Topics include developmental and cultural perspectives, relationships, sexuality and life review.

GERON 1017 Heart Health and Aging .5 Units
Hours: 9 hours LEC
This course examines the causes and risk factors associated with cardiovascular disease, focusing on how the aging body influences these risk factors and the course of the heart disease and stroke. In addition, recommendations for lifestyle changes that can reduce risks and complications associated with cardiovascular disease are presented.

GERON 1018 Social Security--Past, Present, and Future .5 Units
Hours: 9 hours LEC
This course examines the Social Security, Medicare, and Supplemental Security Income (SSI) programs from before their inceptions through today’s current controversies. Topics include population demographics and their impact on social programs and historical overviews of program development. Credit/No Credit only.

GERON 1020 Demographic Changes and the Effect on Caregiving .5 Units
Hours: 9 hours LEC
This course examines issues surrounding the current “Age Wave” in relationship to the historical views of the elderly, ageism, stereotypes and myths, and how these issues affect caregiving. The implications that an aging society has on health care delivery including acute, sub-acute, and community based services are discussed. Credit/No Credit only.

GERON 1021 Elder Abuse .5 Units
Hours: 9 hours LEC
This course is an overview of elder abuse. It focuses on occurrence, prevention strategies, and resources to prevent elder abuse. Credit/No Credit only.

GERON 1022 Aging and Family Dynamics .5 Units
Hours: 9 hours LEC
This course is an overview of how the aging process affects not only individuals, but also families and relationships. The focus is on changing roles and the relationship strategies for negotiating these transitions to help families resolve aging issues. Credit/No Credit only.
GERON 1023 Interpersonal Relationships .5 Units
*Hours: 9 hours LEC*
This course covers listening and communication skills. The focus is on understanding emotions, family involvement, and adaptive behavior in long-term care settings. Demonstrations with role play provides practical experience to enhance understanding. Credit/No Credit only.

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 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 purpose and role, goals, effects of stereotypes, the continuation of life skills, and the development of wisdom. Credit/No Credit only.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>GERON 1041</td>
<td>Psychological Treatment Modalities and Aging</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
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<tr>
<td>GERON 1042</td>
<td>Life Review and Reminiscence</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
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<tr>
<td>GERON 1043</td>
<td>Caregiving</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
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<tr>
<td>GERON 1044</td>
<td>Creativity and Aging</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1045</td>
<td>Super Centenarians</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1046</td>
<td>Fundamentals of Aging: Working with Older Adults</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1047</td>
<td>The Graying of America</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1048</td>
<td>Economics of Aging</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1050</td>
<td>Alcohol and the Elderly</td>
<td>0.5</td>
<td>9</td>
<td>This course explains how alcohol affects seniors in both independent and assisted living environments and explores treatment options for seniors. Credit/No Credit only.</td>
</tr>
<tr>
<td>GERON 1052</td>
<td>Professionalism and Ethics in Gerontology</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1053</td>
<td>Alzheimer’s Disease and Other Dementias</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1055</td>
<td>Motivating Older Adults to Stay Active</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1056</td>
<td>Suicide and the Elderly</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1057</td>
<td>Generational Interdependency</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1058</td>
<td>Aging of the Brain</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1059</td>
<td>Exploring Case Management as a Career</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>GERON 1060</td>
<td>Housing Options and Aging</td>
<td>0.5</td>
<td>9</td>
<td>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.</td>
</tr>
</tbody>
</table>
GERON 1061  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 1062  Gerontological Social Work  .5 Units

Hours: 9 hours LEC
This course examines the field of gerontological social work and its nature, settings, roles, skills, educational requirements, and the projected employment rates. Focus is on the increased need for educated social workers and the roles and settings in which they practice. Credit/No Credit only.

GERON 1063  Aging and Leisure Services  .5 Units

Hours: 9 hours LEC
This course explores the many facets of leisure as it applies to the aging population. Emphasis is on activities for both high and low functioning adults. Adaptive leisure programs and materials are identified. Other topics include indoor and outdoor recreation options, such as travel, lifelong learning, volunteerism, camps, and community services. Credit/No Credit only.

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.
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 1 Unit
Advisory: ENGWR 102 or 103, and ENGRD 116 or ESLR 320, ESLW 320 or placement through assessment process.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course is designed for individuals requiring certification in American Red Cross (Community CPR). The course includes rescue breathing, first aid for choking and CPR for adults, children, and infants as well as heart attack prevention. May be taken four times.

HEED 311 CPR and Pediatric First Aid 1.5 Units
Same As: ECE 414
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 this course. The California Child Care First Aid certification 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 ESLW 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 ESLW 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 324 Emergency Response 3 Units
Prerequisite: Current Community CPR card.
Advisory: ENGWR 102 or 103, and ENGRD 116 or ESLR 320, ESLW 320.
Course Transferable to CSU
Hours: 54 hours LEC
This course meets prerequisites for Emergency Medical Technician (EMT) courses. It is designed for first responders/professional rescuers (i.e., lifeguards, law enforcement, firefighters, search and rescue personnel, etc.). It is recommended for nursing, physical therapy, and athletic training students. This course covers recognition and first aid treatment for: bleeding wounds, fractures, burns, poisoning, respiratory and cardiac emergencies, sudden illnesses as well as primary and secondary victim assessments and emergency rescue and transfer techniques.

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: 9-54 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 the 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: AAAS Area V(a); CSU Area D6; CSU Area F1; IGETC Area 4F  
Course Transferable to UC/CSU  
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: AAAS Area V(a); AAAS Area VI; CSU Area D6; CSU Area F1; IGETC Area 4F  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is a survey of 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.

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); AAAS Area VI; CSU Area D6; CSU Area F1; IGETC Area 4F  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course covers U.S. history from the founding of Jamestown in 1607 through the Civil War. 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 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: AAAS Area V(a); AAAS Area VI; CSU Area D6; CSU Area F1; IGETC Area 4F  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is a survey of the North American Indian nations. 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 325  History of Asian/Pacific Americans  
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); AAAS Area VI; CSU Area D3; CSU Area D6; IGETC Area 4F  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is a survey lecture course that examines the history of Asian immigrants and Asian Americans in the United States from 1850 to the present. It includes the process of migration and settlement in the United States by people from east Asia, southeast Asia, south Asia, and the Pacific islands. It examines the historical experience of these groups from a social, political, economic, and cultural perspective, with an emphasis on the following themes: work, family, community formation, government policies, race relations, and ethnic identities. It also addresses the contributions of Asian Americans to the multicultural development of contemporary American society, including the interaction of Asian Americans with people of European, African, Hispanic, and Native descent.

HIST 327  History of the Chicano/Mexican American  
3 Units  
Advisory: 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 D6; CSU Area F1; IGETC Area 4F  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is a study of the relationship between the development of American and Mexican civilization in the Western Hemisphere. Focus is on the role of the Mexican American experience as it was affected by social, political, and economic events in the U.S. Emphasis is placed on socio-cultural contributions of Mexican Americans to American institutions.

HIST 330  Women in American History  
3 Units  
Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.  
General Education: AAAS Area V(a); AAAS Area VI; CSU Area D6; CSU Area F1; IGETC Area 4F  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course offers a survey of U.S. women’s history, including the origin and development of the nation’s political, social, economic, and intellectual institutions, from pre-contact indigenous societies to the modern era. The diverse roles and contributions of European American, Native American, African American, Mexican American, and Asian American women are emphasized throughout the course.

HIST 340  History of California through 1879  
3 Units  
Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; 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 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: 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 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: AA/AS Area V(b); CSU Area D6
Course Transferable to CSU
Hours: 8-54 hours LEC; 3-18 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: 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 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: 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 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: 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 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: AA/AS 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 Mexican history, 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 399  Studying in Italy: Italian History and Culture  4 Units
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; ENGWR 300 or 480 with a grade of "C" or better.
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
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; ENGWR 300 OR 480 with a grade of "C" or better.
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. Emphasis will be on the social, political, economics, 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 Colonial 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 interrelationships of American political, economic, social, and cultural developments.

HIST 494  Topics in History  
.5-4 Units
Advisory: HIST 302
Course Transferable to CSU
Hours: 9-72 hours LEC
This course provides the opportunity for concentrated study on specialized topics in History. It covers topics from a wide range of academic disciplines including anthropology, economics, engineering, fine arts, history, law, life science, literature, mathematics, philosophy, political science, sociology, psychology and varies in content and scope with the interests and expertise of both the instructors and the students. This course may be taken four times on different topics.
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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 100</td>
<td>Plant Diseases and Pests</td>
<td>3</td>
</tr>
<tr>
<td>HORT 105</td>
<td>Pest Control Licensing For Certification</td>
<td>2</td>
</tr>
<tr>
<td>HORT 110</td>
<td>Irrigation Design</td>
<td>2</td>
</tr>
<tr>
<td>HORT 298</td>
<td>Work Experience in Horticulture</td>
<td>1 - 4</td>
</tr>
<tr>
<td>HORT 300</td>
<td>Introduction to Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>HORT 302</td>
<td>Soils and Plant Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HORT 305</td>
<td>Plant Materials I</td>
<td>3</td>
</tr>
<tr>
<td>HORT 306</td>
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</tr>
<tr>
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</tr>
<tr>
<td>HORT 326</td>
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<td>3</td>
</tr>
</tbody>
</table>

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.

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. Work experience is required.

Requirements for Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>HORT 100</td>
<td>Plant Diseases and Pests</td>
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</tr>
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<td>Pest Control Licensing For Certification</td>
<td>2</td>
</tr>
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</tr>
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</tr>
<tr>
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</tr>
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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.

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.

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Nursery Industry Certificate

This certificate 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.

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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.

Career Opportunities

Completion of the certificate provides satisfactory qualification for employment in retail and mass market floristry industries. The program also is a means to upgrade skills of those already working in the industry.

Requirements for Certificate 8 Units

<table>
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<tr>
<th>Course</th>
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<tr>
<td>HORT 200 Introduction to Retail Floristry</td>
<td>2</td>
</tr>
<tr>
<td>HORT 201 Floral Design</td>
<td>2</td>
</tr>
<tr>
<td>HORT 202 Corsage and Wedding Floral Design</td>
<td>2</td>
</tr>
<tr>
<td>HORT 203 Multi Occasion, Sympathy Design and the Mass Market</td>
<td>2</td>
</tr>
</tbody>
</table>

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 hour 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: HORT 300 with a grade of “C” or better.
Advisory: HORT 100, 302, and 305.
Hours: 18 hours LEC; 60-225 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 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 330  Small Gas Engines  
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 small gas engines as they pertain to the automotive and horticulture industries. This course is not open to students who have taken AT 301.
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

<table>
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<tr>
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<th>Units</th>
</tr>
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<tbody>
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<td>HM 100</td>
<td>Calculations in Foodservice Occupations</td>
<td>3</td>
</tr>
<tr>
<td>HM 110</td>
<td>Management and Supervision in the Hospitality Industry</td>
<td>2</td>
</tr>
<tr>
<td>HM 115</td>
<td>Advertising and Sales in Food Service</td>
<td>2</td>
</tr>
<tr>
<td>HM 120</td>
<td>Beverage Operation</td>
<td>2</td>
</tr>
<tr>
<td>HM 125</td>
<td>Legal Aspects of the Hospitality Industry</td>
<td>2</td>
</tr>
<tr>
<td>HM 300</td>
<td>Becoming a Chef</td>
<td>3</td>
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<tr>
<td>HM 310</td>
<td>Sanitation, Safety and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>HM 315</td>
<td>Food Theory and Preparation</td>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>HM 320</td>
<td>Breads, Yeast Doughs and Pastry</td>
<td>2</td>
</tr>
<tr>
<td>HM 325</td>
<td>Fine Baking and Pastry (European)</td>
<td>2</td>
</tr>
<tr>
<td>HM 340</td>
<td>Cost Control in the Food Service Industry</td>
<td>2</td>
</tr>
<tr>
<td>HM 360</td>
<td>Professional Cooking</td>
<td>3</td>
</tr>
<tr>
<td>HM 370</td>
<td>Dining Room Management</td>
<td>2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>HM 380</td>
<td>Restaurant Management and Production</td>
<td>3&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>HM 498</td>
<td>Work Experience in Hospitality Management (1 - 4)</td>
<td>5</td>
</tr>
</tbody>
</table>

And a minimum of 5 units from the following:

And a minimum of 3 units from the following:

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<td>Catering (3)</td>
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</tr>
<tr>
<td>HM 155</td>
<td>Mediterranean Cuisine (3)</td>
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<tr>
<td>HM 165</td>
<td>Regional American Cuisine (3)</td>
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<tr>
<td>HM 180</td>
<td>Garde Manger (3)</td>
<td>3</td>
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<tr>
<td>HM 297</td>
<td>Internship in Hospitality Management (1 - 4)</td>
<td>3</td>
</tr>
<tr>
<td>HM 330</td>
<td>Advanced Baking and Pastry (3)</td>
<td>3</td>
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</tbody>
</table>

<sup>1</sup>HM 315 is a prerequisite for all HM hot-food lab classes
<sup>2</sup>HM 370 requires an additional minimum of 8 hours per week in The Oak Cafe
<sup>3</sup>HM 380 requires an additional minimum of 16 hours per week in The Oak Cafe

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.

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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.
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

HM 100 Calculations in Foodservice Occupations 3 Units

HM 110 Management and Supervision in the Hospitality Industry 2 Units

HM 115 Advertising and Sales in Food Service 2 Units

HM 120 Beverage Operation 2 Units

HM 300 Becoming a Chef 3 Units

HM 310 Sanitation, Safety and Equipment 3 Units

HM 315 Food Theory and Preparation 4 Units

HM 340 Cost Control in the Food Service Industry 2 Units

HM 370 Dining Room Management 2 Units

And a minimum of 5 units from the following: 5 Units

HM 315 Food Theory and Preparation
HM 320 Breads, Yeast Doughs and Pastry
HM 325 Fine Baking and Pastry (European)
HM 330 Advanced Baking and Pastry
HM 360 Sanitation, Safety & Equipment
HM 370 Dining Room Management
HM 498 Work Experience in Hospitality Management (1 - 4)

1HM 370 requires an additional minimum of 8 hours per week in The Oak Cafe

HM 100 Calculations in Foodservice Occupations 3 Units

Advisory: MATH 25 or placement through assessment process.

Hours: 54 hours LEC

This course is a study of mathematical principles in the context of commercial food production. Topics include study of recipe conversions and yields, production baking formulas, weights and measures, the metric system, 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, ESLL 320, and ELSW 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 115 Advertising and Sales in Food Service 2 Units

Advisory: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, and ELSW 320, or placement through assessment.

Hours: 36 hours LEC

This course is an introductory presentation of principles involved in advertising for food service establishments. Topics covered include menu planning, design and pricing, marketing plans, market information systems, consumer behavior and internal and external promotions.

HM 120 Beverage Operation 2 Units

Advisory: ENGW 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, and ELSW 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, ESLL 320, and ELSW 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: HM 100 and 310.

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.

HM 165 Regional American Cuisine 3 Units

Advisory: HM 100, 310, and 315.

Hours: 36 hours LEC; 54 hours LAB

This course presents the study of ingredients and culinary techniques used in the preparation of foods from a variety of North American cuisines, including New England, Floridian, 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.
HM 180  Garde Manger  3 Units
Prerequisite: HM 315 with a grade of “C” or better.
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 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’oeuvres, canapés, salads, brining, pickling, curing, and smoking. It also includes basic charcuterie with emphasis on forcemeats, mousse-lines, terrines, pâtés, galantines and sausages.

HM 290  Competitive Culinary Training  2-4 Units
Prerequisite: Hospitality Management 315 with a “C” or better.
Hours: 18 hours LEC; 60-225 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.

HM 297  Internship in Hospitality Management  1-4 Units
Prerequisite: Must have completed 15 units in Hospitality Management with a grade of “C” or better.
Advisory: MATH 25, ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, and ESLW 320, or placement through assessment process.
Hours: 18 hours LEC; 60-225 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.

HM 300  Becoming a Chef  3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course will cover the history of the culinary profession, explore the numerous avenues of opportunity, and study the advantages of continuing education in the field. Field trips provide exposure to different types of kitchens, industry food shows, and produce markets. The course covers the backgrounds and approaches of successful chefs and restaurateurs.

HM 310  Sanitation, Safety and Equipment  3 Units
Advisory: MATH 204, ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 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.

HM 315  Food Theory and Preparation  4 Units
Corequisite: MATH 32 or placement through assessment process.
Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; or MATH 030; 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. Emphasis is on basic cooking skills and theory application. (CAN FCS 8)

HM 320  Breads, Yeast Doughs and Pastry  2 Units
Advisory: MATH 25, ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, and ESLW 320, or placement through assessment.
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 lectures 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.

HM 325  Fine Baking and Pastry (European)  2 Units
Prerequisite: HM 320 with a grade of “C” or better.
Advisory: MATH 25, 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: 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.

HM 330  Advanced Baking and Pastry  3 Units
Prerequisite: HM 310, 320, and 325 with grades of “C” or better.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course focuses on commercial production of baked products, pastries, candies, restaurant style desserts and wedding cakes. 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, pulled sugar, piping and chocolate work. Emphasis is placed on production of high quality products and professional presentation. Field trips to professional bakeries are required.

HM 340  Cost Control in the Food Service Industry  2 Units
Advisory: MATH 25, ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESL 320, and ESLW 320, or placement through assessment process.
Course Transferable to CSU
Hours: 36 hours LEC
This course covers accounting and cost control principles in the food service industry. It includes the use of accounting techniques to analyze food and labor cost control, business operations, budgeting, financing and profit and loss statements.
HM 360  Professional Cooking  3 Units
Prerequisite: HM 315 with a grade of “C” or better.
Advisory: HM 100 and 310.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course 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 Café at American River College.
Course Transferable to CSU
Hours: 36 hours LEC
This course focuses on restaurant management with emphasis on service and the dining room. Topics include the historical view of service, quality and exceeding 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 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.
Course Transferable to CSU
Hours: 18 hours LEC; 60-225 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.

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: 18-72 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.
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. It is required for most dismissed students for readmission to the college.

**HCD 115 Orientation to College** 0.5 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 development, 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: ENGWR 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: 27-162 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

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<th>Course</th>
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<td>HSER 300</td>
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<td>HSER 310</td>
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<td>or GERON 304</td>
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<td>HSER 330</td>
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<td>or PSYC 365</td>
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<td>HSER 340</td>
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<td>HSER 360</td>
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<td>PSYC 340</td>
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<td>SOC 300</td>
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<td>And a minimum of 6 units from the following: 6</td>
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<td>HSER 362</td>
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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. Course work includes the twelve counselor core function applications in addiction screening, intake, assessment, orientation, counseling, crisis intervention, consultation, clients education, client’s rights, confidentiality, professional ethics, and reports and record keeping.

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

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<th>Course</th>
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<tr>
<td>HSER 300</td>
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<td>HSER 310</td>
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<td>or PSYC 400</td>
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HSER 362 must be taken twice.

HSER 341  Physiology and Pharmacology: Alcohol & Other Drugs 3
or PSYC 401  Physiology and Pharmacology: Alcohol & Other Drugs 3
HSER 342  Alcoholism: Intervention, Treatment & Recovery 3
or PSYC 402  Alcoholism: Intervention, Treatment & Recovery 3
HSER 360  Techniques of Interviewing and Counseling 3
HSER 365  Techniques of Group Counseling 3
PSYC 300  General Principles 3
or PSYC 305  Personal Growth and Adjustment 3
PSYC 340  Abnormal Behavior 3
SOC 300  Introductory Sociology 3
And a minimum of 6 units from the following: 6
HSER 362  Practices in Human Services 3

1HSER 362 must be taken twice.

HSER 330  Introduction to Human Services  3 Units
Advisory: ENGW 102 or ENGW 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 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
Corequisite: HSER 300 and 320
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: 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: ENGW 102 or ENGW 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: 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 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: 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 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 360  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 course 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 a “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: ENGWR 102 or ENGWR 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: AAAS 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: AAAS 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: AAAS Area I; AAAS 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 interrelationships 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: AAAS 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: AAAS Area I; AAAS 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 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, ESLR 320, or ESLW 320; or placement through the assessment process.
General Education: AAAS 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, ESLR 320, or ESLW 320; or placement through the assessment process.
General Education: AAAS 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: 9-72 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.
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

| ART 320 | Design: Fundamentals                      | 3 |
| FASHN 320 | Textiles                             | 3 |
| IDES 300 | Fundamentals of Interior Design          | 3 |
| IDES 310 | History of Interior Architecture and Furnishings I | 3 |
| IDES 312 | History of Interior Architecture and Furnishings II | 3 |
| IDES 322 | Materials of Interior Design             | 3 |
| IDES 324 | Interior Design Business Practices       | 3 |
| IDES 330 | Beginning Interior Design Studio         | 3 |
| IDES 332 | Interior Illustration and Rendering      | 3 |
| IDES 334 | Interior Environment and Space Planning  | 3 |
| IDES 340 | Beginning CADD for Interior Design       | 3 |
| IDES 341 | Intermediate CADD for Interior Design    | 3 |
| IDES 350 | Codes and Universal Access for Interior Design | 2 |
| IDES 351 | Codes and Universal Access Lab           | 1 |
| IDES 354 | Reading Construction Documents           | 2 |
| IDES 357 | Interior Design Construction             | 3 |
| IDES 497 | Internship in Interior Design (1 - 4)    | 3 |

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 29 Units

| IDES 330 | Beginning Interior Design Studio         | 3 |
| IDES 334 | Interior Environment and Space Planning  | 3 |
| IDES 341 | Intermediate CADD for Interior Design    | 2 |
| IDES 350 | Codes and Universal Access for Interior Design | 2 |
| IDES 354 | Reading Construction Documents           | 2 |
| IDES 361 | Beginning Kitchen Design                 | 3 |
| IDES 362 | Advanced Kitchen Design                  | 3 |
| IDES 375 | Beginning Bath Design                    | 3 |
| IDES 376 | Advanced Bath Design                     | 2 |

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.
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, ESL 320, ESLW 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.

**IDES 326 Interior Design Sales** 3 Units
Prerequisite: IDES 324 with a grade of “C” or better.
Course Transferable to CSU
Hours: 54 hours LEC
This course covers various aspects of selling proposed residential and commercial design projects. Included are personal presentation, selling techniques, making the sale, closing the deal, job completion and follow up. Field trips are required.

**IDES 330 Beginning Interior Design Studio** 3 Units
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers basic manual drafting and presentation techniques for interior designers. Topics include development of floor plans, elevations to scale, shades, shadows and techniques for color application. Presentation boards and other methods of presentation are explored.

**IDES 332 Interior Illustration and Rendering** 3 Units
Prerequisite: IDES 330 with a grade of “C” or better.
Corequisite: IDES 350.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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
Prerequisite: IDES 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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
Prerequisite: IDES 330 with a grade of “C” or better.
Advisory: IDES 334
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course employs 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
Prerequisite: IDES 340 with a grade of “C” or better
Advisory: IDES 334 and 354
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a continuation of the Computer Aided Drafting and Design (CADD) skills developed in IDES 340, utilizing different 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 342  CADD for Kitchen and Bath Design  2 Units
Prerequisite: IDES 340 with a grade of “C” or better
Advisory: IDES 334 and 354
Course Transferable to CSU
Hours: 24 hours LEC; 36 hours LAB
This course explores the technical aspects of creating interior design construction documents using CADD software. This advanced CADD course uses software specifically for the kitchen and bath industry. Field trips are required.

IDES 350  Codes and Universal Access for Interior Design  2 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320, or placement through assessment process.
Course Transferable to CSU
Hours: 36 hours LEC
This course explores local, state, and federal regulations, codes and specifications concerning life-safety issues, and barrier free access (American Disabilities Act universal design requirements) relative to residential and contract design. Special attention is given to performance, health-safety, and barrier free design when estimating and preparing specifications for space planning, materials and furnishings/products.

IDES 351  Codes and Universal Access Lab  1 Unit
Prerequisite: IDES 334 and IDES 350 with a grade of “C” or better.
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320, or placement through assessment process.
Course Transferable to CSU
Hours: 54 hours LAB
This course applies the content and skills from IDES 350 to various design scenarios requiring universal design, barrier-free design and ADA (Americans with Disabilities Act) compliance. Projects are drafted following prescribed criteria.

IDES 354  Reading Construction Documents  2 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 320, ESLL 320, ESLW 320; or placement through assessment process; MATH 32 or placement through assessment process; CISC 300.
Course Transferable to CSU
Hours: 36 hours LEC
This course covers the language of construction documents and specifications including symbols, conventions, scales, nomenclature, contract documents, specifications and uniform building codes.

IDES 361  Beginning Kitchen Design  3 Units
Prerequisite: IDES 330 and 354 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 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
Prerequisite: IDES 361 with a grade of “C” or better.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 considerations, 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: 36-72 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.
Course Transferable to CSU
Hours: 18 hours LEC; 120-300 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.
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.

<table>
<thead>
<tr>
<th>Requirements for Degree</th>
<th>32 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 411  Photography</td>
<td>3</td>
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<tr>
<td>HIST 311  History of the United States</td>
<td>3</td>
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<tr>
<td>JOUR 300  Newswriting and Reporting</td>
<td>3</td>
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<tr>
<td>JOUR 310  Mass Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 360  Photojournalism</td>
<td>3</td>
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<tr>
<td>JOUR 404  Editing and Production</td>
<td>3</td>
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<tr>
<td>PHIL 300  Introduction to Philosophy (3)</td>
<td>3</td>
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<tr>
<td>or PHIL 310  Introduction to Ethics (3)</td>
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<tr>
<td>POLS 332  Law and Society (3)</td>
<td>3</td>
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<tr>
<td>or BUS 345  Law and Society (3)</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>JOUR 401  College Newspaper Production (2)</td>
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<tr>
<td>And a minimum of 2 units from the following:</td>
<td>2</td>
</tr>
<tr>
<td>JOUR 405  Publications Production Skills Lab (0.5 - 3)</td>
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</tr>
</tbody>
</table>

JOUR 401 must be taken three times.

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 |
| 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. |
| 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 II(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 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 Transferable to CSU |
| Hours: 36 hours LEC, 54 hour 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 Transferable 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 Transferable to CSU
Hours: 54 hours LEC
This course provides instruction and practice in editing and design, including page makeup, copy editing, photo editing, legal/ethical issues and production methods for newspapers, magazines and other publications. It also includes preparing, planning and organizing publications.

JOUR 405  Publications Production Skills Lab  .5-3 Units
Corequisite: JOUR 404.
Advisory: JOUR 300.
Course Transferable to CSU
Hours: 27-162 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
LA 300  Introduction to Law and the American Legal System  3
LA 310  Civil Procedures and Litigation  3
LA 312  Torts and Personal Injury  3
LA 314  Contract Law for Legal Assistants  3
LA 320  Legal Research  3
LA 321  Legal Writing  3
And a minimum of 12 units from the following:  12
LA 330  Family Law and Procedure (3)
LA 332  Administrative Law and Procedure (3)
LA 334  Criminal Law and Procedure (3)
LA 340  Techniques of Interview (1)
LA 342  Evidence (3)
LA 350  Law Office Management (3)
LA 360  Corporations Law (3)
LA 362  Estate Planning and Probate Procedure (3)
LA 364  Landlord Tenant Law (3)
LA 366  Basic Bankruptcy Law (3)
LA 368  Workers' Compensation Law (3)
LA 497  Internship in Legal Assisting (1 - 4)

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.

Career Opportunities

This certificate meets the required minimum education for the State of California for those who desire to qualify for Legal Assistant positions.

Requirements for Certificate  6 Units
LA 300  Introduction to Law and the American Legal System  3
LA 320  Legal Research  3

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
LA 300  Introduction to Law and the American Legal System  3
LA 350  Law Office Management  3
BUSTEC 100  Keyboarding Skills (1 -3)  1 - 3
or BUSTEC 300  Beginning Keyboarding/Applications (1 -3)
BUSTEC 122  Workplace Behavior and Communication Technologies  3
BUSTEC 305  Introduction to Office Technology  1
BUSTEC 310  Introduction to Word/Information Processing  1 - 3

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.

Requirements for Certificate 30 Units

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<thead>
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And a minimum of 12 units from the following: 12

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LA 300  Introduction to Law and the American Legal System 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 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 312 or 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 314  Contract Law for Legal Assistants 3 Units

Corequisite: LA 300. Advisory: ENGWR 300 or ESLW 340.

Course Transferable to CSU

Hours: 54 hours LEC

This course provides the legal assistant with knowledge of basic contract principles, including formation, validity, defenses, rights of third parties, performance, breach, remedies and damages.

LA 320  Legal Research 3 Units

Advisory: ENGWR 300 or ESLW 340.

Course Transferable to CSU

Hours: 54 hours LEC

This course is designed to familiarize the legal assistant with the basic tools of legal research in both federal and California law, with emphasis on California materials. Location and use of primary and secondary sources will be studied. The elements of a court decision and how to brief a case will be studied.

LA 321  Legal Writing 3 Units

Prerequisite: LA 320, and ENGWR 300 or ESLW 340 with a grade of "C" or better.

Course Transferable to CSU

Hours: 54 hours LEC

This course is a continuation of LA 320. It includes the application of research methods to gather information which may be used in a variety of written products. Information will be synthesized into various documents typically used in the law office. Documents created may include interoffice memoranda, court briefs, and letters to clients.

LA 330  Family Law and Procedure 3 Units

Prerequisite: LA 300 with a grade of "C" or better.

Advisory: LA 320.

Course Transferable to CSU

Hours: 54 hours LEC

This course is designed to familiarize the legal assistant with California Family Law relating to dissolution procedures, property issues and non-marital relationships. Legal procedures, preparation of necessary forms and their significance will be emphasized.

LA 332  Administrative Law and Procedure 3 Units

Advisory: LA 300.

Course Transferable to CSU

Hours: 54 hours LEC

This course is designed to familiarize the legal assistant with administrative law and procedure in general with specific emphasis on California law and procedure.

LA 334  Criminal Law and Procedure 3 Units

Course Transferable to CSU

Hours: 54 hours LEC

This course provides the paralegal with a background in both substantive crimes and criminal procedure. It includes a detailed study of the operation of the criminal justice system, from arrest and filing of charges through trial, conviction and appeal.

LA 340  Techniques of Interview 1 Unit

Prerequisite: LA 300 with a grade of "C" or better.

Course Transferable to CSU

Hours: 18 hours LEC

This course provides general background information about basic communication and relates this information to the skills used by a legal assistant in interviewing clients and witnesses.
LA 342  Evidence  3 Units
Advisory: LA 310.
Course Transferrable 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 Transferrable 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 105 or placement through assessment process.
Course Transferrable 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 Transferrable 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. Testamentary and intestate probate procedures will also be included.

LA 364  Landlord Tenant Law  3 Units
Course Transferrable 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 Transferrable 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 Transferrable 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 Transferrable to CSU
Hours: 18 hours LEC; 60-225 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.
Liberal Arts Degree

The Liberal Arts degree is designed for students wishing to pursue a general broad-based educational program. Courses are selected from a variety of subject areas. This major prepares students for career advancement and transfer to a four-year college or university.

<table>
<thead>
<tr>
<th>Requirements for Degree</th>
<th>24 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A minimum of 3 units from the following: Transfer-level Natural Science courses</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of 3 units from the following: Transfer-level Humanities courses</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of 6 units from the following: Transfer-level Social &amp; Behavioral Sciences courses</td>
<td>6</td>
</tr>
<tr>
<td>A minimum of 3 units from the following: Transfer-level Language &amp; Rationality courses</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of 9 units from the following: Transfer-level courses chosen from the following areas: Natural Science, Humanities, Social &amp; Behavioral Sciences and Language &amp; Rationality</td>
<td>9</td>
</tr>
</tbody>
</table>

This requirement may be completed with 7 or 8 units instead of 9 units if a 4 - 5-unit course is taken from Natural Sciences.

**Associate Degree Requirements:** The Liberal 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.
Liberal Studies Degree

The Liberal Studies degree provides a broad acquaintance with the major branches of human knowledge. It emphasizes the fields of natural science, social sciences, humanities, composition, mathematics, and critical thinking.

### Requirements for Degree  
57 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 303</td>
<td>Survey of Biology</td>
<td>4</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td></td>
</tr>
<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENGCW 400</td>
<td>Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGED 305</td>
<td>Structure of English</td>
<td>3</td>
</tr>
<tr>
<td>ENGWR 300</td>
<td>College Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGWR 301</td>
<td>College Composition and Literature (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGWR 302</td>
<td>Advanced Composition and Critical Thinking (3)</td>
<td></td>
</tr>
<tr>
<td>or ENGWR 481</td>
<td>Honors College Composition and Literature (3)</td>
<td></td>
</tr>
<tr>
<td>GEOL 305</td>
<td>Earth Science</td>
<td>3</td>
</tr>
<tr>
<td>HIST 307</td>
<td>History of World Civilizations to 1500 (3)</td>
<td>6</td>
</tr>
<tr>
<td>and HUM 310</td>
<td>Modern Humanities (3)</td>
<td></td>
</tr>
<tr>
<td>or HIST 308</td>
<td>History of World Civilizations, 1500 to Present (3)</td>
<td></td>
</tr>
<tr>
<td>and HUM 300</td>
<td>Classical Humanities (3)</td>
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<tr>
<td>HIST 310</td>
<td>History of the United States (3)</td>
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<tr>
<td>or HIST 311</td>
<td>History of the United States (3)</td>
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<tr>
<td>HIST 330</td>
<td>Women in American History (3)</td>
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<tr>
<td>or 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>
<td></td>
</tr>
<tr>
<td>or SOC 320</td>
<td>Minorities in America (3)</td>
<td></td>
</tr>
<tr>
<td>or TA 306</td>
<td>Diversity in American Drama (1960 to Present) (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 310</td>
<td>Mathematical Discovery</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 321</td>
<td>Basic Musicianship</td>
<td>3</td>
</tr>
<tr>
<td>POLS 302</td>
<td>Introduction to Government: Foreign</td>
<td>3</td>
</tr>
<tr>
<td>SPEECH 301</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>And a minimum of 8 units from the following:</td>
<td></td>
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</tr>
</tbody>
</table>

Any transfer level foreign language course (numbered 300-499).

### Associate Degree Requirements:
The Liberal 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.
Library courses provide a general introduction to basic library and research resources.

**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 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  Internet Research Skills  1 Unit**

*Course Transferable to CSU*  
*Hours: 18 hours LEC*  
This course focuses on using the Internet as a research tool. It will provide strategies in locating, retrieving and evaluating information available over the Internet. It will give hands-on practice in developing effective research techniques.

**LIBR 325  Introduction to Internet and Searching Strategies  3 Units**

*General Education: AA/AS Area III(b)*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC*  
This course is an introductory survey to the content, use, and the evaluation of electronic information sources. Emphasis is placed on the effective use of the Internet as a research tool. This course covers Internet resources, online databases, email, newsgroups, listservs, blogs and the invisible web. Database search strategies and techniques are covered. Historical and social issues surrounding the Internet are also discussed.

**LIBR 494  Topics in Library  .5-4 Units**

*Course Transferable to CSU*  
*Hours: 9-72 hours LEC*  
This course will focus on special topics in library and information science. Topics will emphasize accessing and using information and information systems. This course may be taken four times for credit on different topics for a maximum of six units.
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>Units</th>
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<tbody>
<tr>
<td>ACCT 101</td>
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</tr>
<tr>
<td>BUS 110</td>
<td>3</td>
</tr>
<tr>
<td>BUS 300</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 300</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 360</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 362</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 330</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 300</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 362</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>3</td>
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<td>MGMT 372</td>
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And a minimum of 6 units from the following:

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<tr>
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<td>BUS 212</td>
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<tr>
<td>BUS 340</td>
<td>3</td>
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<tr>
<td>BUS 350</td>
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</tbody>
</table>

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>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
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<tr>
<td>MGMT 304</td>
<td>3</td>
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<td>MGMT 360</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 300</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 360</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</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>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>3-4</td>
</tr>
<tr>
<td>BUS 110</td>
<td>3</td>
</tr>
<tr>
<td>BUS 300</td>
<td>3</td>
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<tr>
<td>MGMT 304</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 308</td>
<td>3</td>
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<tr>
<td>MGMT 360</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300</td>
<td>3</td>
</tr>
</tbody>
</table>

[Continued on next page...]

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MGMT 350  Organizational Learning: Theory of Knowledge  3
MGMT 360  Management Communication (3)  3
or BUS 310  Business Communications (3)
PHIL 310  Introduction to Ethics  3
PHYS 310  Conceptual Physics  3
PSYC 383  Introduction to Organizational Psychology  3
STAT 301  Introduction to Probability and Statistics  3
And a minimum of 1 unit from the following:
BUSTEC 300  Beginning Keyboarding/Applications (1 - 3)

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.

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  27 Units
MGMT 300  Introduction to Modern Management  3
MGMT 320  Modern Management: Variation and Statistics I  3
MGMT 330  Teams and Team Facilitation  3
MGMT 340  Management and Systems Thinking I  3
MGMT 350  Organizational Learning: Theory of Knowledge  3
PHIL 310  Introduction to Ethics  3
PHYS 310  Conceptual Physics  3
PSYC 383  Introduction to Organizational Psychology  3
STAT 301  Introduction to Probability and Statistics  3

Introduction to Leadership in Action Certificate
The Introduction to Leadership in Action certificate focuses on the leadership and management functions essential to building world class organizations in today’s diverse and complex environments. It also addresses customer satisfaction with emphasis on the development of effective planning, systems design, statistical analysis, teamwork and leadership.

Requirements for Certificate  15 Units
MGMT 300  Introduction to Modern Management  3
MGMT 320  Modern Management: Variation and Statistics I  3
MGMT 330  Teams and Team Facilitation  3
MGMT 340  Management and Systems Thinking I  3
MGMT 350  Organizational Learning: Theory of Knowledge  3

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  9 Units
MGMT 300  Introduction to Modern Management  3
MGMT 340  Management and Systems Thinking I  3
PHYS 310  Conceptual Physics  3

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  9 Units
MGMT 300  Introduction to Modern Management  3
MGMT 350  Organizational Learning: Theory of Knowledge  3
PHIL 315  Ethics and Morals in Business  3

Leadership in Action: Variation and Statistics Certificate
The Leadership in Action: Variation and Statistics certificate centers on the importance of statistical knowledge of variation, variation patterns and the methodology and use of statistical tools to assist managers with the measurement and improvement of organizational processes. It emphasizes the practical application of statistical tools in the workplace.

Requirements for Certificate  9 Units
MGMT 300  Introduction to Modern Management  3
MGMT 320  Modern Management: Variation and Statistics I  3
STAT 301  Introduction to Probability and Statistics  3
MGMT 100 Management of Change 3 Units
Hours: 54 hours LEC
This course focuses on the development of effective management response to organizational change. Emphasis is placed on identifying how change affects the lives of organizational members and synthesizing the proper response to reduce stress at all levels. How to facilitate change in an organization and its effect on personal change and growth are explored.

MGMT 102 Management of Conflicts/IBA 1 Unit
Hours: 18 hours LEC
This course focuses on the development of skills of dealing with differences and finding ways of reaching mutual agreements amicably. It is based on the work of the Harvard Negotiation Project on improving skills in conflict resolution and agreement making by separating the people from the problem. It is about win-win negotiations, adding a process to address issues in relationships. This course teaches attendees multipurpose process to foster good relationships and better communications.

MGMT 110 Preparing to Join a Team 1 Unit
Hours: 18 hours LEC
This course introduces individuals who have had prior working experience in areas that were individual based, and individuals who have not had work experience to team membership. It focuses on team membership, team development processes, ones learning styles, and ones contribution to the development of a team.

MGMT 111 Skills for Team Members 1 Unit
Hours: 18 hours LEC
This course introduces individuals who have had prior working experience in areas that were individual based, and individuals who have not had work experience to team development. Topics include beginning stages of team development, team mechanics, and group dynamics of an effective team.

MGMT 112 Adapting to the Team Workplace 1 Unit
Hours: 18 hours LEC
This course introduces individuals who have had prior working experience in areas that were individual based, and people who have not had work experience to the team workplace. They will learn how to measure the team's performance level, experience the team development stages and develop and use planning and participation tools for teams. Topics will include: how to measure a team performance level, team developmental stage, planning and participation stage, planning and participation stages for teams in a classroom-lab-setting.

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 the sources 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, 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 130 Applying Quality Tools 1-3 Units
Hours: 18-54 hours LEC
This course is designed for those interested in examining the practical application of quality principles. It explores the areas of quality concepts, customer focus, tools and techniques, and the process. This course sets the foundation of a learning organization and provides training that will enable individuals to turn their organizations into an empowered group of motivated, educated, and committed leaders.

MGMT 142 Project Management Techniques and Software 3 Units
Same As: CISA 160
Advisory: ENGWR 102 or 103, and 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 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: 9-90 hours LEC; 27-125 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: ENGRD 116 or ESLR 320 and EWSL 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: ENGRD 116 or ESLR 320 and EWSL 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 321 Modern Management: Variation and Statistics II 3 Units
Prerequisite: MGMT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course is the second in the series of two integrated courses in Modern Management on the application of the understanding and knowledge of variation and statistics. The class focuses on practical application of the knowledge and tools of the design-of-experiments (DOE) using the Taguchi methods and the Taguchi Loss Function in the development and design of administrative and service processes. Emphasis is placed on immediate application in the administrative/service environment. 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 workplace, emphasizing administrative, white collar environments. Course requires team participation outside of class.

MGMT 332 Team Development 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 teams, with a focus on practical application of the knowledge and tools of Neuro Linguistic Programming (NLP) and Human Dynamics approach to psychology to assist in the design and delivery of administrative and service products/offerings. Emphasis is placed on the immediate application of the tools to the workplace, 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 341 Management and Systems Thinking II 3 Units
Prerequisite: MGMT 300.
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on both individual and organizational system’s changes that are essential if the quality model is to properly function. Expanding on the teachings of MGMT 300, especially the principals of Profound Knowledge (as set forward by Dr. W. Edwards Deming), the set expands the concept of human capabilities of systems members and demonstrates the need for the addition of Emotional Intelligence at Work, as an essential component of any system. The course will make extensive use of the Internet for understanding and sharing state-of-the-art systems thinking. Course requires team participation.

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.

MGMT 372 Human Relations and Organizational Behavior 3 Units
Advisory: ENGWR 102 or 103 and ENGRD 116 or ESLR 310 and ESLW 310
Course Transferable to CSU
Hours: 54 hours LEC
This course emphasizes the psychology of human relations management. It covers human interaction principles that build confidence, competence and positive attitudes in work organizations. Topics include the basis for human behavior, perception, communication, motivation, performance improvement, group behavior, ethics and social responsibility.
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 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>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 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>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</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>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Profession</td>
<td>3</td>
</tr>
<tr>
<td>MKT 312</td>
<td>Retailing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 314</td>
<td>Advertising</td>
<td>3</td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
<td>2</td>
</tr>
<tr>
<td>BUS 320</td>
<td>Concepts in Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BUS 350</td>
<td>Managing Diversity in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>CISA 160</td>
<td>Project Management Techniques and Software</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 142</td>
<td>Project Management Techniques and Software</td>
<td>3</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management</td>
<td>1</td>
</tr>
<tr>
<td>CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 308</td>
<td>Personnel and Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</td>
<td>Human Relations and Organizational Behavior</td>
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</table>

And a minimum of 7 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>CIS 300</td>
<td>Computer Familiarization</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 304</td>
<td>Introduction to Management Functions</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Profession</td>
<td>3</td>
</tr>
<tr>
<td>MKT 312</td>
<td>Retailing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 314</td>
<td>Advertising</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>CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics</td>
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</table>

Requirements for Degree Major 39-40 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting</td>
<td>3-4</td>
</tr>
<tr>
<td>or ACCT 301</td>
<td>Financial Accounting</td>
<td>3</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>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 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>CISA 330</td>
<td>Desktop Publishing</td>
<td>2</td>
</tr>
<tr>
<td>CIS 300</td>
<td>Computer Familiarization</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems</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</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Profession</td>
<td>3</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.

Requirements for Degree Major 41-42 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>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 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>or BUS 345</td>
<td>Law and Society</td>
<td>2</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>
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<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Profession</td>
<td>3</td>
</tr>
</tbody>
</table>

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.
MKT 312  Retailing  3 Units
Hours: 27 hours LEC
This course offers the different aspects of exporting. It affords the student a working knowledge of the various terms and techniques essential to exporting. The topics include international movement of merchandise, and trade patterns by countries and commodities.

MKT 314  Advertising  3 Units
Hours: 27 hours LEC
This course covers the steps involved in importing a product or service. The course includes an introduction to the United States Customs Service, customs brokers, duty rate, basic laws affecting imports, currency exchange, letters of credit, storage and transportation of shipments.

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, or 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, 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 marketing promotional mix with special 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 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 325</td>
<td>Symbolic Logic (3)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 320</td>
<td>Symbolic Logic (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 481</td>
<td>Introduction to Probability and Statistics - Honors (3)</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 301</td>
<td>Introduction to Probability and Statistics (3)</td>
<td></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:

Transferable courses must be selected from the following areas: astronomy, chemistry, engineering, geology, mathematics, physical geography, physical science, 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.

American River College Catalog 2007-2008
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. Later 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.

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: 9-72 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); CSU Area B4
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 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: AA/AS Area II(b); CSU Area B4
Course Transferrable 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: AA/AS Area II(b); CSU Area B4; IGETC Area 2
Course Transferrable 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: AA/AS Area II(b); CSU Area B4; IGETC Area 2
Course Transferrable 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 Transferrable 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 or placement through assessment.
Course Transferrable to CSU
Hours: 18 hours LEC
This course introduces the basic functions and applications of scientific graphing 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: AA/AS Area II(b); CSU Area B4; IGETC Area 2
Course Transferrable 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: AA/AS Area II(b); CSU Area B4; IGETC Area 2; TCSU MATH 210, MATH Sequence A
Course Transferrable 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; TCSU MATH 220, MATH Sequence A
Course Transferrable 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
Course Transferrable to UC/CSU
Hours: 54 hours LEC
This course is a continuation of MATH 401. It includes calculus of functions of more than one variable, partial derivatives, extrema of functions of more than one variable, multiple integration, development of vector calculus, line integrals, three dimensional analytic geometry and the theorems of Green, Gauss (Divergence), and Stokes.

MATH 410 Introduction to Linear Algebra 3 Units
Prerequisite: MATH 400 with a grade of “C” or better
Advisory: MATH 402
General Education: CSU Area B4; IGETC Area 2; TCSU MATH 250
Course Transferrable 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 Transferrable 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 ENGW 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 481 Introduction to Probability and Statistics - Honors**  
3 Units  
Prerequisite: Cumulative GPA of 3.0 or better; MATH 120 with a grade of “C” or better; and ENGW 300 or 480 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 the concepts of statistics with a strong emphasis on the understanding and appreciation of the role of statistics in real-life situations, including computer analysis of real data. In addition to the topics presented in STAT 301, this honors course will include either additional topics of non-parametric statistics, design-of-experiment issues ensuring validity, analysis of variance and multiple regression or an applied research term paper using statistical methods and data collected from a work environment.
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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUFHL 310</td>
<td>Survey of Music History and Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 311</td>
<td>Survey of Music History and Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 400</td>
<td>Music Theory</td>
<td>4</td>
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<tr>
<td>MUFHL 401</td>
<td>Music Theory</td>
<td>4</td>
</tr>
<tr>
<td>MUFHL 410</td>
<td>Advanced Music Theory</td>
<td>4</td>
</tr>
<tr>
<td>MUFHL 411</td>
<td>Advanced Music Theory</td>
<td>4</td>
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<tr>
<td>MUIVI 420</td>
<td>Applied Music</td>
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<tr>
<td>MUIVI 421</td>
<td>Applied Music</td>
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<tr>
<td>MUIVI 422</td>
<td>Applied Music</td>
<td>1</td>
</tr>
<tr>
<td>MUIVI 423</td>
<td>Applied Music</td>
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**Guitarists/Pianists Concentration**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MUFHL 315</td>
<td>Jazz History</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 330</td>
<td>World Music</td>
<td>3</td>
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<tr>
<td>MUFHL 400</td>
<td>Music Theory</td>
<td>4</td>
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<td>4</td>
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<tr>
<td>MUFHL 410</td>
<td>Advanced Music Theory</td>
<td>4</td>
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<tr>
<td>MUFHL 420</td>
<td>Beginning Jazz Theory</td>
<td>2</td>
</tr>
<tr>
<td>MUIVI 385</td>
<td>Jazz Styles and Improvisation</td>
<td>2</td>
</tr>
<tr>
<td>or MUIVI 390</td>
<td>Beginning Jazz and Popular Vocal Styles</td>
<td>2</td>
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<tr>
<td>MUIVI 400</td>
<td>Beginning Jazz Piano</td>
<td>2</td>
</tr>
<tr>
<td>MUIVI 420</td>
<td>Applied Music</td>
<td>1</td>
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<td>MUIVI 421</td>
<td>Applied Music</td>
<td>1</td>
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<tr>
<td>MUIVI 425</td>
<td>Applied Music - Jazz</td>
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<tr>
<td>MUIVI 426</td>
<td>Applied Music - Jazz</td>
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<tr>
<td>MUSM 334</td>
<td>Introduction to Musical Instrument Digital Interface (MIDI)</td>
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</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**

<table>
<thead>
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<tr>
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<td>MUIVI 400</td>
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</tr>
<tr>
<td>MUIVI 420</td>
<td>Applied Music</td>
<td>1</td>
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<tr>
<td>MUIVI 421</td>
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<td>MUIVI 426</td>
<td>Applied Music - Jazz</td>
<td>1</td>
</tr>
<tr>
<td>MUSM 334</td>
<td>Introduction to Musical Instrument Digital Interface (MIDI)</td>
<td>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.
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 assessment process.
General Education: AA/AS Area I; CSU Area C1; IGETC Area
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 composers 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 particularly interested in humanities or arts.

MUFHL 311 Survey of Music History and Literature 3 Units
Advisory: ENGRD 116 or ESLR 320, and ESLW 320, or placement through assessment
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 composers 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 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

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
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<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>MUFHL 321</td>
<td>Basic Musicianship</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 330</td>
<td>World Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 110</td>
<td>The Business of Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 111</td>
<td>The Business of Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 112</td>
<td>The Business of Music/Artist Management</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 113</td>
<td>The Business of Music/Promotion</td>
<td>3</td>
</tr>
<tr>
<td>MUSM 120</td>
<td>Contemporary Songwriting</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 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 224</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>BUS 226</td>
<td>Loss Prevention and Security</td>
<td>1</td>
</tr>
<tr>
<td>BUS 228</td>
<td>Selling Techniques for the Small Business</td>
<td>1</td>
</tr>
<tr>
<td>BUS 230</td>
<td>QuickBooks (R) for Small Business</td>
<td>1</td>
</tr>
</tbody>
</table>

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 core skills needed to enter a career in audio engineering. Foundational classes in the theory and art of recording are coupled with significant laboratory experiences in order to prepare the student for further study at a four-year institution or for an entry-level career position.

Career Opportunities
Typical career paths include recording engineer, broadcast engineer, live sound reinforcement, post-production audio, sound effects editor, multi-media/internet audio, and audio/music education.

Requirements for Degree or Certificate 37 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship</td>
</tr>
<tr>
<td>ET 302</td>
<td>Principles of Electricity and Electronics</td>
</tr>
<tr>
<td>MUFHL 321</td>
<td>Basic Musicianship</td>
</tr>
<tr>
<td>MUFHL 330</td>
<td>World Music</td>
</tr>
<tr>
<td>MUIVI 340</td>
<td>Beginning Piano</td>
</tr>
<tr>
<td>MUSM 110</td>
<td>The Business of Music</td>
</tr>
<tr>
<td>MUSM 120</td>
<td>Contemporary Songwriting</td>
</tr>
<tr>
<td>MUSM 140</td>
<td>Concert Sound Reinforcement</td>
</tr>
<tr>
<td>MUSM 334</td>
<td>Introduction to Musical Instrument Digital Interface (MIDI)</td>
</tr>
<tr>
<td>MUSM 342</td>
<td>Recording Studio Techniques</td>
</tr>
<tr>
<td>MUSM 344</td>
<td>Recording Studio Techniques</td>
</tr>
<tr>
<td>MUSM 350</td>
<td>Recording Studio Techniques</td>
</tr>
<tr>
<td>MUSM 352</td>
<td>Recording Studio Techniques</td>
</tr>
</tbody>
</table>
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 improvisational 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 a comprehensive, comparative listener survey of the folk ethnic, dance, and ceremonial music traditions around the world and in the United States. Concepts of ethnicity, ethnocentrism, racism, ageism, class differences, and gender issues will be addressed. Guided listening presentations will show how traditional forms and styles have led to the urban, professional music popular in many countries today known as “World Beat.” Music of the Americas, Africa, Asia, Australia and Europe will be compared.

**MUFHL 400 Music Theory** 4 Units

Prerequisite: Knowledge of musical notation
Corequisite: MUIVI 340 or piano audition

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. It includes analysis and composition and is required for music majors. Four concerts must be attended and evaluated each semester.

**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, intervals, triads, diatonic harmonies, part writing, rhythms, sight singing, ear training, dictation, history and performance. It includes analysis and composition and is required for music majors.

**MUFHL 410 Advanced Music Theory** 4 Units

Prerequisite: MUFHL 401

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 and 20th century writing techniques; practice in rhythmic, melodic, harmonic and contrapuntal sight singing, ear training and dictation. 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 16th and 18th century counterpoint, fugue, variation, altered chords, sonata allegro and rondo forms, and late 19th and 20th century writing techniques; practice in rhythmic, melodic, harmonic and contrapuntal sight singing, ear training and dictation. Required for music majors.

**MUFHL 420 Beginning Jazz Theory** 2 Units

Prerequisite: MUFHL 400 with a grade of "C" or better

Advisory: MUIVI 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.

Advisory: MUIVI 400.

Course Transferable to CSU
Hours: 36 hours LEC; 18 hours LAB

This course provides a continuation of jazz concepts presented in MUFHL 420. The emphasis will be advanced elements of jazz theory including harmonic, melodic and formal analysis in the jazz idiom.

**MUFHL 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

Prerequisite: MUIVI 321 or 340 with a grade of "C" or better

General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB

This course emphasizes the development of the individual's voice. Solos are learned and performed in class.

**MUIVI 311 Voice Class** 2 Units

Prerequisite: MUIVI 310.

Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB

This course emphasizes the continued development of the individual's voice. Solos are learned and performed in class.
MUIVI 320 Voice Class, Intermediate 2 Units
Prerequisite: MUIVI 311.
Course Transferable to UC/CSU
Hours: 36 hours LEC, 18 hours LAB
This course is a study of vocal exercise and intellectual analysis for the development of efficient singing techniques and skills in performing vocal literature. Performance in class is essential.

MUIVI 321 Voice Class, Intermediate 2 Units
Prerequisite: MUIVI 320.
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. Performance in class is essential.

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. (CAN MUS 24)

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 350 Intermediate Piano 2 Units
Prerequisite: MUIVI 340 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 351 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 is the study of instrumental and vocal applications of jazz improvisation. This course may be taken twice for credit.

MUIVI 386 Jazz Styles and Improvisation 2 Units
Prerequisite: MUIVI 385.
Course Transferable to UC/CSU
Hours: 36 hours LEC, 18 hours LAB
This course is the study of advanced instrumental and vocal applications of jazz improvisation. This course may be taken twice for credit.

MUIVI 390 Beginning Jazz and Popular Vocal Styles 2 Units
Prerequisite: MUIVI 310 or 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, R & B, pop, rock, and country. This course may be taken twice for credit.

MUIVI 391 Advanced Jazz and Popular Vocal Styles 2 Units
Prerequisite: MUIVI 390 or audition.
Course Transferable to CSU
Hours: 36 hours LEC, 18 hours LAB
This course offers further instruction in the stylistic and performance elements of jazz and popular solo singing styles and repertoire including the blues, R & B, pop, rock, and country. This course may be taken twice for credit.

MUIVI 400 Beginning Jazz Piano 2 Units
Prerequisite: MUIVI 340.
Advisory: MUFHL 400.
Course Transferable to CSU
Hours: 36 hours LEC, 18 hours LAB
This course is an introduction to the fundamentals of jazz piano. Topics include left-hand voicings, tritone substitution, and scale theory applications to the keyboard. Requires at least five hours per week outside preparation.
MUIVI 401 Intermediate Jazz Piano 2 Units
Prerequisite: MUIVI 400.
Advisory: MUFHL 400.
Course Transferable to CSU
Hours: 36 hours LEC; 18 hours LAB
This course is intermediate studies in jazz piano. Topics include stride voicings, block chords, Salsa and Latin comping and "Fourth" chords. Requires at least five hours per week outside preparation.

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 and jazz 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.
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.
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.
MUIVI 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.

MUIVI 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.

MUP 310 Orchestra 2 Units
Prerequisite: Ability to play a musical instrument.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC, 54 hours LAB
This course is the study and performance of orchestral repertoire. It is open to those who play an orchestral instrument. 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: 54-108 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
Prerequisite: Ability to play at least one instrument commonly used in a jazz ensemble; audition required.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC, 54 hours LAB
This course is the study and performance of Jazz Band repertoire. Public performance and field trips required. May be taken four times for credit.

MUP 321 Advanced Jazz Band 1-2 Units
Prerequisite: MUP 320 (8 units); audition.
Course Transferable to UC/CSU
Hours: 54-108 hours LAB
This course is the continuing study and performance of Jazz Band repertoire. Additional topics include experience in conducting, rehearsal technique and section leading. Public performance and field trips are 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: 18 hours LEC, 54 hours LAB
This course examines and evaluates techniques of chamber jazz group organization, jazz arranging, and jazz improvisation. Chamber jazz recording techniques are analyzed focusing on studio etiquette, microphone setup, headphone mix, and playback critique. Public performance and field trips are required. This course may be taken four times for credit.

MUP 328 Advanced Chamber Jazz Ensemble 2 Units
Prerequisite: Completion of 8 units of MUP 327 with a grade of "C" or better.
Course Transferable to UC/CSU
Hours: 18 hours LEC, 54 hours LAB
This course examines and evaluates advanced techniques of chamber jazz ensemble organization. Ensemble members select music, formulate rehearsal strategy, conduct rehearsals, and set up and evaluate group performances. Public performances and field trips are required. This course may be taken four times for credit.

MUP 330 Concert 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: 18 hours LEC, 54 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: 54-108 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 basic fingerings and all major and harmonic minor scales from memory. Percussion players should know basic rudiments including single and double stroke rolls, 5, 7, and 9 stroke rolls, flams, paradiddles, ratamacues, and ruffs.
General Education: CSU Area C1
Enrollment Limitation: Audition.
Course Transferable to UC/CSU
Hours: 18 hours LEC, 54 hours LAB
This course studies and performs 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.

MUP 341 Advanced Symphonic Band 1-2 Units
Prerequisite: MUP 340 (8 units) and audition.
Course Transferable to UC/CSU
Hours: 54-108 hours LAB
This course is the continuing study and performance of advanced symphonic band literature. It is designed for a large ensemble of brass, woodwind, and percussion instruments rehearsing a wide variety of music. 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 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
Prerequisite: Ability to match pitch through assessment
Advisory: Previous singing experience and/or ability to read music notation.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course is the study and performance of choir literature including classical works, contemporary pieces, and music of many diverse cultures. Public performances, festivals, and field trips are required. This course may be taken four times for credit.

MUP 352 Advanced Concert Choir 2 Units
Prerequisite: 8 units of MUP 350 with a grade of “C” or better.
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. 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 including sight singing and aural skills assessment.
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course is an advanced choral ensemble of limited size performing a wide variety of music. Public performances, festivals, and field trips are required. This course may be taken four times for credit.

MUP 361 Advanced Chamber Singers 2 Units
Prerequisite: 8 units of MUP 360 with a grade of “C” or better and audition required. The audition includes sight singing and aural skills assessment.
Advisory: Ability to match pitch required. Previous singing experience and/or ability to read music notation.
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course is an advanced choral ensemble of limited size performing a wide variety of music. Public performances, festivals, and field trips are required. This course may be taken four times for credit.

MUP 370 Rehearsal and Performance - Musical Ensemble .5–3 Units
Same As: TA 466
General Education: CSU Area C1
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 27-162 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 340 Vocal Jazz Ensemble 2 Units
General Education: CSU Area C2
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 the continuing study of vocal jazz ensemble repertoire and techniques. Additional topics include experiences in scat singing, conducting, rehearsal technique and section leading. Public performances, festivals, recording sessions and field trips are required. This course may be taken four times for credit.

MUP 365 Woodwind Ensemble 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 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 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: 9–18 hours LEC; 27–54 hours LAB
This course is the continuing study of vocal jazz ensemble repertoire and techniques. Additional topics include experiences in scat singing, conducting, rehearsal technique and section leading. Public performances, festivals, recording sessions and field trips are required. This course may be taken four times for credit.

MUP 410 Percussion Ensemble 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 is a study of percussion ensemble literature. Public performances and field trips are required. The course may be taken four times for credit.

MUP 412 String Ensemble 1 Unit
Prerequisite: Ability to play a string (orchestral) 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 414 Brass Ensemble 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 is designed for small ensemble experience and practice for brass players. Public performance and field trips are required. The course may be taken four times for credit.

MUP 416 Piano Ensemble 1 Unit
Prerequisite: Advanced keyboard proficiency, advanced technical and sight reading ability required; audition.
Course Transferable to UC/CSU
Hours: 9 hours LEC; 27 hours LAB
This course is limited to advanced students. Emphasis is on artistic interpretation and performance of two-piano music. It is recommended for piano majors. May be taken four times for credit.
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, record producers and agent/managers. The course also defines the duties of recording and performing artists.

MUSM 111 The Business of Music 3 Units
Prerequisite: MUSM 110.
Hours: 54 hours LEC
This course covers the fundamentals and organization of the music business. It includes the duties of attorneys, publishers, and radio. The course also defines and analyzes publishing, agreements, merchandising contracts, trademark and servicemark points, radio and record industry relations.

MUSM 112 The Business of Music/Artist Management 3 Units
Hours: 54 hours LEC
This course covers definitions, duties and agreements of artist management. Topics include functions of a personal manager and artist, guidelines to career planning, choosing managers, record company relations and other team players. The course will also analyze the personal manager agreement and organize an artist’s tour.

MUSM 113 The Business of Music/Promotion 3 Units
Hours: 54 hours LEC
This course covers the processes of music promotion. Activities include definitions of promotion, developing media/industry fan lists and assembling a promotion packet. The course also discusses current internet strategies and technology for promotion. In addition, a campaign for album release and distribution is discussed and planned.

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 120 Contemporary Songwriting 3 Units
Prerequisite: MUFHL 321.
Hours: 54 hours LEC
Processes of the songwriting industry in popular music today: instrumental and vocal arrangements, musical styles in jazz, pop, and rock, lyrics, formation of melodies and harmonies, popular music form, notation on paper, and other related topics.

MUSM 121 Contemporary Songwriting 3 Units
Prerequisite: MUSM 120.
Hours: 54 hours LEC
This course covers the processes of lyric evaluation, song format and music styles. Production techniques, publishing, and marketing strategies will also be included.

MUSM 140 Concert Sound Reinforcement 2 Units
Hours: 36 hours LEC; 18 hours LAB
This course is an overview of live concert sound reinforcement. Topics to be covered include basic sound system theory/applications, and study of individual sound system component operation (microphones, mixers, effects, power amplifiers, speaker systems). Demonstrations, discussions, and a hands-on approach will provide ways to troubleshoot, sound check, and mix sound for live performance, and touring. This course may be taken twice for credit.

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 CU
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 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**  
40.5-42.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIOL 305</td>
<td>Natural History</td>
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<td>BIOL 310</td>
<td>General Biology</td>
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<tr>
<td>ENGW 44</td>
<td>Technical/Professional Communication: Writing Reports</td>
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<tr>
<td>GEOG 330</td>
<td>Introduction to Geographic Information Systems (3)</td>
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<td>or GEOG 334</td>
<td>Introduction to Desktop GIS (4)</td>
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<td>or CISC 300</td>
<td>Computer Familiarization (1)</td>
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<td>and CICA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
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<td>Beginning Word Processing (2)</td>
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<td>GEOL 300</td>
<td>Physical Geography (3)</td>
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<td>or GEOG 300</td>
<td>Physical Geography: Exploring Earth's Environmental Systems (3)</td>
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<td>NATR 300</td>
<td>Introduction to Natural Resource Management</td>
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<td>NATR 302</td>
<td>Introduction to Wildlife Biology</td>
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<td>NATR 304</td>
<td>Introduction to Forestry</td>
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<td>NATR 310</td>
<td>Natural Resource Measurements (4)</td>
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<td>or NATR 311</td>
<td>Natural Resource Measurements-Land Surveying Methods (1)</td>
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<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>
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<td>and NATR 314</td>
<td>Natural Resource Measurements-Aquatic Resource Sampling (1)</td>
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<td>NATR 320</td>
<td>Principles of Ecology</td>
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<td>NATR 330</td>
<td>Identification of Native Trees and Shrubs</td>
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<tr>
<td>STAT 301</td>
<td>Introduction to Probability and Statistics</td>
<td>3</td>
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**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

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<th>Course Title</th>
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<td>Introduction to Natural Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>NATR 302</td>
<td>Introduction to Wildlife Biology</td>
<td>3</td>
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<tr>
<td>NATR 304</td>
<td>Introduction to Forestry</td>
<td>3</td>
</tr>
<tr>
<td>NATR 310</td>
<td>Natural Resource Measurements (4)</td>
<td>4</td>
</tr>
<tr>
<td>or NATR 311</td>
<td>Natural Resource Measurements-Land Surveying Methods (1)</td>
<td></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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<tr>
<td>and NATR 313</td>
<td>Natural Resource Measurements-Vegetation Analysis and Forest Sampling (1)</td>
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<tr>
<td>and NATR 314</td>
<td>Natural Resource Measurements-Aquatic Resource Sampling (1)</td>
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<tr>
<td>NATR 320</td>
<td>Principles of Ecology</td>
<td>3</td>
</tr>
<tr>
<td>NATR 330</td>
<td>Identification of Native Trees and Shrubs</td>
<td>4</td>
</tr>
</tbody>
</table>

**NATR 294  Topics in Natural Resources**  
Prerequisite: To be determined for each topic.  
Advisory: ENGRD 116 or ESLR 320.  
Hours: 9-90 hours LEC, 27-270 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 300  Introduction to Natural Resource Management**  
General Education: AAAS 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**  
General Education: AAAS Area IV  
Course Transferable to CSU  
Hours: 56 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**  
General Education: AAAS 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.
NATR 306  Introduction to Range Management   3 Units
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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.

NATR 310  Natural Resource Measurements-Field Methods and Study Design   1 Unit
Course Transferable to CSU
Hours: 9 hours LEC, 27 hours LAB
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 quadrats. 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.

NATR 311  Natural Resource Measurements-Land Surveying Methods   1 Unit
Course Transferable to CSU
Hours: 9 hours LEC, 27 hours LAB
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.

NATR 312  Natural Resource Measurements-Aquatic Resource Sampling   1 Unit
Course Transferable to CSU
Hours: 9 hours LEC, 27 hours LAB
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.

NATR 313  Natural Resource Measurements-Land -Vegetation Analysis and Forest Sampling   1 Unit
Course Transferable to CSU
Hours: 9 hours LEC, 27 hours LAB
This course provides basic forest and vegetation sampling skills. Included in this are forest sampling techniques and an introduction to field applications of Global Positioning Systems (GPS) and Geographic Information Systems (GIS). Field trips are required.

NATR 314  Natural Resource Measurements-Wildlife Population Sampling   1 Unit
Course Transferable to CSU
Hours: 9 hours LEC, 27 hours LAB
This course provides basic wildlife sampling techniques such as transects, demarcation, and age. It focuses on the wildflowers of the Sacramento Region. The identification, distribution, and abundance of plant species will be covered. Field trips are required.

NATR 315  Analysis of a Predator-The Mountain Lion   1.5 Units
Course Transferable to CSU
Hours: 27 hours LEC
This course explores the natural history, habitat, and management 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 the mountain lion 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 animal.

NATR 316  Principles of Ecology   3 Units
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers basic principles of ecology, including the physical and biological factors of different environments in relation to the distribution 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.

NATR 320  Black Bear Ecology and Management in California   2 Units
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
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.

NATR 325  Identification of Native Trees and Shrubs   4 Units
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
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.

NATR 326  Wildflowers of the Sacramento Region   4 Units
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course focuses on the wildflowers of the Sacramento Region. The identification, distribution, and interrelationships of herbaceous plants in their natural environment, ecological principles, and representative plant communities are examined. Special emphasis will be given to the study of plant families in our local grasslands, vernal pools, oak woodlands and foothills, the taxonomy and other methods for range conversion and maintenance are explored. Field trips are required.

NATR 327  Analysis of a Predator-The Black Bear   1.5 Units
Course Transferable to CSU
Hours: 27 hours LEC
This course explores the natural history and political history of the black bear. Topics include the distribution and abundance of black bears 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 bear sign and appreciation of the natural habitat of this animal.

NATR 328  Identification of Native Trees and Shrubs   4 Units
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
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.

NATR 329  Wildflowers of the Sacramento Region   4 Units
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course focuses on the wildflowers of the Sacramento Region. The identification, distribution, and interrelationships of herbaceous plants in their natural environment, ecological principles, and representative plant communities are examined. Special emphasis will be given to the study of plant families in our local grasslands, vernal pools, oak woodlands and foothills, the taxonomy and other methods for range conversion and maintenance are explored. Field trips are required.
NATR 340  John Muir “Conservationist”  2 Units
Course Transferable to CSU
Hours: 36 hours LEC
This course covers the life, writings and philosophy of one of the
founders of the American Conservation Movement. This course fo-
cuses 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.

NATR 342  Forest Resource Protection  4 Units
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course examines impacts to forest resources by destructive
agents such as plant diseases, insects, fire, animals, and weather.
Identification of causal agents and principles of forest protection are
covered along with practical management concepts. Field trips are
required.

NATR 498  Work Experience in Natural Resources  1-4 Units
Course Transferable to CSU
Hours: 0-18 hours LEC; 0-150 hours LAB
This course is a cooperative effort between the college and a federal,
state, local, private or nonprofit organizations involved in natural
resource planning, management or public information. Internship
sponsors assist students in acquisition of skills and the application of
knowledge learned in the classroom. In addition to applied job relat-
ed skills, students will be provided general employment training and
skills such as: resume writing, job applications, taking job interviews,
how to look for jobs and develop job performance objectives.
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 an 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 (within the semester in which the pre-enrollment packet is being submitted).
- In-progress grades will not be accepted for prerequisite courses.
- Transfer-In Policy: Send a letter requesting transfer addressed to, American River College, Nursing Department, attention: Director of Nursing, 4700 College Oak Drive, Sacramento, CA 95841. The letter must contain the following information: 1.) Semester you are seeking admittance. 2.) Transcripts from all colleges attended (need not be official). 3.) Course description of course work completed outside of the Los Rios College District. 4.) Skills list from previous nursing courses. Note: Transfer students must meet all program entry requirements. Requests for transfer into the nursing program is subject to space available.

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.
- 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology (3)</td>
</tr>
<tr>
<td>BIOL 430</td>
<td>Anatomy and Physiology (5)</td>
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<tr>
<td>BIOL 431</td>
<td>Anatomy and Physiology (5)</td>
</tr>
<tr>
<td>BIOL 440</td>
<td>General Microbiology (4)</td>
</tr>
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<td>BIOL 442</td>
<td>General Bacteriology (5)</td>
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<td>ENGWR 300</td>
<td>College Composition (3)</td>
</tr>
<tr>
<td>NURSE 400</td>
<td>Fundamentals of Medical-Surgical Nursing I (10.5)</td>
</tr>
<tr>
<td>NURSE 410</td>
<td>Maternal/Child and Medical-Surgical Nursing II (10.5)</td>
</tr>
<tr>
<td>NURSE 420</td>
<td>Psychiatric and Medical-Surgical Nursing III (10.5)</td>
</tr>
<tr>
<td>NURSE 430</td>
<td>Management of Multiple Patients &amp; Medical - Surgical Nursing IV (10.5)</td>
</tr>
<tr>
<td>NUTRI 300</td>
<td>Nutrition (3)</td>
</tr>
<tr>
<td>PSYC 300</td>
<td>General Principles (3)</td>
</tr>
<tr>
<td>SPEECH 301</td>
<td>Public Speaking (3)</td>
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<tr>
<td>SPEECH 331</td>
<td>Group Discussion (3)</td>
</tr>
</tbody>
</table>
nursing & allied health

Current curriculum planning summary sheet within the

Eligibility for ENGRD 310 or 312.

A grade of “C” or better and a cumulative G.P.A. of 2.5
A cumulative G.P.A. of 3.0 in the following science prereq
Completion of a minimum of six months of recent LVN
Possession of a current California Vocational Nurse (LVN)
following criteria:

To be eligible for enrollment in the program, the student must meet the

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.

Requirements for Degree  75-76 Units

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<tr>
<th>Course</th>
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<td>Anatomy and Physiology</td>
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<td>BIOL 440</td>
<td>General Microbiology (4)</td>
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<td>or BIOL 442</td>
<td>General Bacteriology (5)</td>
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<tr>
<td>ENGWR 300</td>
<td>College Composition</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 305</td>
<td>Transition to Associate Degree Nursing IV</td>
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</tr>
<tr>
<td>NURSE 400</td>
<td>Fundamentals of Medical-Surgical Nursing I</td>
<td>10.5</td>
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<td>NURSE 410</td>
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<td>PSYC 300</td>
<td>General Principles</td>
<td>3</td>
</tr>
<tr>
<td>SOC 300</td>
<td>Introductory Sociology (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH 310</td>
<td>Cultural Anthropology (5)</td>
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<td>SPEECH 301</td>
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</tr>
<tr>
<td>or SPEECH 331</td>
<td>Group Discussion (3)</td>
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</tr>
</tbody>
</table>

1BIOL 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.

ENGRD 300, 310, 312 must be taken either prior to or concurrently with NURSE 400.

SPEECH 301 or 331 must be taken either prior to or concurrently with NURSE 410.

Acceptance of pre-nursing courses taken outside the Los Rios Community College District will be determined by the Nursing admissions committee.

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.

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.

Credit for NURSE 400 and 410 will be given after evaluation of LVN program transcripts.

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

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.

**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 ENGRD 15 and ENGW 51; 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 8 Units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>NURSE 100</td>
<td>Nurse Assistant</td>
<td>6</td>
</tr>
<tr>
<td>NURSE 102</td>
<td>Acute Care Certified Nursing Assistant</td>
<td>2</td>
</tr>
</tbody>
</table>

**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 102.
- Physical exam within one year prior to entrance into NURSE 101.

**Requirements for Certificate 8 Units**

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURSE 100</td>
<td>Nurse Assistant</td>
<td>6</td>
</tr>
<tr>
<td>NURSE 101</td>
<td>Home Health Aide</td>
<td>2</td>
</tr>
</tbody>
</table>

**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.
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 442 or equivalent 4 semester unit microbiology course, with a grade of “B” or better prior to enrollment in the nursing courses.

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 Director of Nursing
- 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.
- LVNs seeking entry are subject to space available
- 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>Units</th>
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<tbody>
<tr>
<td>BIOL 431 Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 440 General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>NURSE 420 Psychiatric and Medical-Surgical Nursing III</td>
<td>10.5</td>
</tr>
<tr>
<td>NURSE 430 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 ENGWR 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 findings, 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; 324 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  
Advisory: Health related occupations.  
Course Transferable to CSU  
Hours: 36 hours LEC  
This course will detail the principles of drug therapy as it applies to its effect in treating disease. The course will also study the metabolism and action of drugs with an emphasis on absorption, duration of action, distribution in the body and adverse drug reactions. The major drug classes and related implications for people receiving drugs that affect the body systems, prevent and treat pain, infections and malignant neoplasms will be discussed. Drugs that alter psychogenic behavior and sleep patterns will be 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. It also presents three systems of measurements and conversion of one system. Calculation accuracy is emphasized by clinical scenarios that apply critical thinking skills.

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 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 Unit
Prerequisite: NURSE 420 with a grade of “C” or better.
Corequisite: NURSE 430.
Hours: 18 hours LEC
This course prepares the student to take the NCLEX-RN (National Council Licensure Examination-Registered Nurse) by application of computer test-taking skills, identifying knowledge deficits and implementing strategies for reducing knowledge deficits in a self-directed learning environment. This course may be taken twice. Credit/No Credit only.

Allied Health

AH 110  Medical Language for Health-Care Providers  3 Units
Hours: 54 hours LEC
This course is an orientation to medical language; basic structure of medical terms and their components-prefixes, suffixes, roots, and combining forms-with emphasis on analyzation, meaning, spelling and pronunciation. The course builds a medical vocabulary applicable to the specialties of medicine, the system 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</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>HM 315</td>
<td>Food Theory and Preparation</td>
<td>4</td>
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<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>
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<tr>
<td>NUTRI 120</td>
<td>Management of the Dietary Department in Health Care Facilities</td>
<td>3</td>
</tr>
<tr>
<td>NUTRI 122</td>
<td>Clinical Experience in Health Care Facilities</td>
<td>2.5</td>
</tr>
</tbody>
</table>

**NUTRI 110  Nutritional Care Management  3 Units**

Corequisite: NUTRI 112.
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.
Hours: 54 hours LEC
This course is a study of medical nutrition therapies as used in health care facilities. The emphasis is on the modification of diets for various dietary needs. The topics discussed include normal nutrition, medical nutrition therapy, food/drug interactions, nutritional care management of the long term care resident, and cultural foods.

**NUTRI 112  Clinical Experience-Nutrition Care Management  2.5 Units**

Corequisite: NUTRI 110.
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.
Enrollment Limitation: Current TB clearance and other immunizations required by clinical facility.
Hours: 18 hours LEC; 90 hours LAB
This course provides a clinical experience, under the supervision of a clinical professional, in the dietary departments of participating acute care hospitals and long term care facilities. Topics include normal and life cycle nutrition, disorders of the gastrointestinal tract, diabetes, wasting disorders, nutrition and mental health.

**NUTRI 120  Management of the Dietary Department in Health Care Facilities  3 Units**

Corequisite: NUTRI 122.
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.
Enrollment Limitation: Current Serv Safe Certification.
Hours: 54 hours LEC
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: 9-72 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: ESLR 320; or placement through the assessment process; ENGRW 102 or 103, and ENGRD 116; ESLR 320; ESLW 320, or placement through assessment process.
General Education: AA/AS Area III(b); AA/AS Area IV; CSU Area E1; TCSU NUTR 110
Course Transferable to UC/CSU
Hours: 54 hours LEC
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: 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.
General Education: AA/AS Area III(b); AA/AS Area IV
Course Transferable to CSU
Hours: 54 hours LEC
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 302.
NUTRI 305  Nutrition for Health  2 Units  
Advisory: ENGW 102 or ENGW 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: ENGW 102 or ENGW 103 and ENGRD 116, or ESLL 320, 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: ENGW 102 or 103, and ENGRD 116, 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 ECE 415.

NUTRI 324  Nutrition for Healthy Aging  3 Units  
Same As: GERON 340  
Advisory: ENGW 102 or 103, and ENGRD 116, or ESLR 320, ESLL 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 submit 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>Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIOL 102 Intro to Concepts of Human Anatomy and Physiology (4)</td>
<td>4 - 10</td>
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<tr>
<td>or BIOL 430 Anatomy and Physiology (5)</td>
<td>0.5 - 1.5</td>
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<tr>
<td>and BIOL 431 Anatomy and Physiology (5)</td>
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<tr>
<td>PMED 105 Prehospital Calculations (0.5)</td>
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<tr>
<td>or NURSE 320 Medical Dosage Calculations (1.5)</td>
<td>12</td>
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<tr>
<td>PMED 110 Introduction to Advanced Prehospital Care</td>
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<tr>
<td>PMED 120 Clinical Internship</td>
<td>6</td>
<td></td>
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<tr>
<td>PMED 130 Prehospital Field Internship</td>
<td>14</td>
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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.
P9MED 102  Emergency Medical Technician - Basic, Pre-hospital Field Internship. 5 Units
Prerequisite: PMED 101.
Advisory: ENGW 102 or ENGRD 116, or ESLR 320, or 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.

P9MED 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.

P9MED 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.

P9MED 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.

P9MED 130  Prehospital Field Internship 14 Units
Prerequisite: PMED 120 with a grade of “C” or better.
Enrollment Limitation: Current EMT-Basic(I) 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.

P9MED 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 the last semester of 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.

P9MED 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.

P9MED 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 improvised care options, and long term care in field settings.

P9MED 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.

P9MED 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.

P9MED 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 1000  Emergency Medical Technician - Basic: Recertification 1 Unit
Prerequisite: Current certification as an Emergency Medical Technician - Basic.
Hours: 20 hours LEC, 4 hours LAB
This course provides current Emergency Medical Technicians - Basic with continuing education modules to satisfy recertification requirements of local/state and National EMS organizations. EMS related topics include airway management, cardiopulmonary resuscitation, patient assessment, spinal management, medical/legal documentation, vital signs and extrication techniques. 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 thought and judgment.

**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); CSU Area B4
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 prefix “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.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
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<tbody>
<tr>
<td>PET 400 Applied Physiology of Exercise</td>
<td>2</td>
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<tr>
<td>PET 401 Applied Kinesiology</td>
<td>2</td>
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<tr>
<td>PET 402 Nutrition for Fitness</td>
<td>2</td>
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<tr>
<td>PET 403 Fitness and Exercise Assessment</td>
<td>1</td>
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<tr>
<td>PET 404 Identification and Management of Fitness Injuries</td>
<td>2</td>
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<tr>
<td>PET 405 Special Populations</td>
<td>1</td>
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<tr>
<td>PET 406 Techniques of Instruction - Strength Training</td>
<td>2</td>
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<tr>
<td>PET 407 Techniques of Instruction - Aerobics and Group Fitness</td>
<td>2</td>
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<tr>
<td>PET 408 Administration of Fitness Programs</td>
<td>2</td>
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<tr>
<td>And a minimum of 1.5 units from the following:</td>
<td>1.5</td>
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<td>PET 497 Internship in Physical Education - Theory (1 - 4)</td>
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<tr>
<th>Certificate</th>
<th>Units</th>
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<td>Fitness Specialist</td>
<td>17.5</td>
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**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 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: 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)
Enrollment Limitation: A physician's statement describing 1) the student's disability, 2) contraindications, and 3) recommended activities.
Course Transferable to CSU Hours: 54 hours LAB
This course is designed for the student 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**
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: A physician’s statement verifying the disability, contraindications 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 programs of physical fitness exercises, including isometric, isokinetic, and isotonic activities to develop strength, flexibility, and cardiorespiratory endurance.
ADAPT 332  Adapted Aquatics  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: A physician’s statement verifying: the disability contraindications recommended activities
Course Transferable to UC/CSU
Hours: 54 hours LAB
Adapted aquatics is an individualized swimming, water safety, and fitness class designed for individuals with disabilities who are precluded from general physical education classes. It focuses on cardiovascular endurance, range of motion, mobility, muscular strengthening, and muscular endurance.

ADAPT 337  Adapted Walk and Wheel  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: A physician’s statement verifying: the disability contraindications recommended activities
Course Transferable to UC/CSU
Hours: 54 hours LAB
This class is designed for the student who is unable to participate in a general physical education activity class. Individualized programs are designed which include walking or wheeling for cardiovascular endurance and specific exercises for muscular strength, muscular endurance, and flexibility. Small group games and activities are included to promote fitness and fun.

ADAPT 338  Adapted Aerobic Activity  1 Unit
Advisory: ENGRD 116, ENGWR 102, ENGWR 103, ESLR 320, or ESLW 320; or placement through the assessment process.
General Education: AA/AS Area III(a); CSU Area E2
Enrollment Limitation: A physician’s statement verifying: 1) disability 2) contraindications 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 a general physical education activity course. It includes group activities as well as individualized activities. Indoor and outdoor workouts are used to enhance cardiovascular endurance and affect body composition. Activities may include walking and jogging, aerobic dance, chair aerobics, circuit training and cardio equipment workouts.
Hours: 162 hours LAB

Dance

DANCE 300  Diverse Cultures in Dance  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); AA/AS Area VI; CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This class will focus on comparing and contrasting three forms of indigenous ethnic and culturally derived dance. Students will learn the traditional significance, movement patterns, and basic steps of the dance form as well as the historical values of its country of origin.

DANCE 302  African Dance  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 in beginning modern dance includes movement technique and choreography. It encourages individual expression and creativity and utilizes improvisation and problem solving techniques in dealing with space, design, time, and energy.
DANCE 340  Social Dance  1 Unit
Advisory: Social Dance, Beginning 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 develops intermediate skills selected from Fox Trot, Waltz, Swing, Cha Cha, West Coast Swing, and other popular dance rhythms. It refines social dance techniques relative to rhythm, partnering, and nonverbal communication skills.

DANCE 350  Country Western Line Dance  1 Unit
Advisory: Country Western Line Dance, Beginning: 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 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: Tap Dance Beginning: 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 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: 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: 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
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: 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 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: 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 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

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 UC/CSU

General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU

Hours: 18 hours LEC; 60-300 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.

FITNS 303  Dance Aerobics  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)
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
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
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
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 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.
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**
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 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**
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
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 Aquatic Aerobics 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
No swimming skills needed. A fitness course using the resistance of water for low/no weight bearing improvement in cardiovascular fitness, muscular endurance, flexibility and strength. The course will include exercises leading to deep and shallow water workouts and provides information related to overall health and fitness.

**FITNS 311 Aquatic Fitness 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 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 312 Off Season Conditioning .5-1 Units**
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 27-54 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 313 Fire Fitness I - Fire Academy Recruit 4 Units**
Advisory: ENGWR 102 or 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 314 Deep Water Jogging 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 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 341 Fire Fitness II - In Station Fitness 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: 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, and ESLW 320; 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: 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 353 Individualized Fitness .5-1 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)
Course Transferable to UC/CSU
Hours: 27-54 hours LAB
This course emphasizes a personalized approach to attaining a higher level of physical fitness. After two weeks of orientation and assessment, individualized workout programs will be established and monitored. Students may then attend workout sessions during any of the published "open hour" time periods up to 100 minutes of credit per day. Fitness assessments are made on a monthly basis.

FITNS 380 Circuit Weight Training 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 presents the student with a system of exercising with weights that provides a balanced approach to physical fitness training. There will be an emphasis on increasing strength, muscle endurance, cardiovascular endurance and flexibility while decreasing body fat.

FITNS 381 Weight Training 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 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

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: 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: A valid Advanced First Aid Certificate.

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: Swimming, Intermediate; 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 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.

**Personal Activity**

**PACT 300 Archery** 1 Unit

Prerequisite: PACT 390 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 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACT 400</td>
<td>Track and Field</td>
<td>1 Unit</td>
<td>This course includes skill development in men's and women's track and field activities including running, jumping, and throwing events.</td>
</tr>
<tr>
<td>SPORT 300</td>
<td>Baseball, Intercollegiate-Men</td>
<td>2 Units</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate baseball.</td>
</tr>
<tr>
<td>SPORT 311</td>
<td>Basketball, Intercollegiate-Men, Fall</td>
<td>1 Unit</td>
<td>This course covers fundamentals, rules, and individual and/or team strategies appropriate to intercollegiate athletic competition. May be taken three times for credit.</td>
</tr>
<tr>
<td>SPORT 312</td>
<td>Basketball, Intercollegiate-Men, Spring</td>
<td>1 Unit</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate athletic competition. May be taken three times for credit.</td>
</tr>
<tr>
<td>SPORT 316</td>
<td>Basketball, Intercollegiate-Women, Fall</td>
<td>1 Unit</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate athletic competition. May be taken three times for credit.</td>
</tr>
<tr>
<td>SPORT 317</td>
<td>Basketball, Intercollegiate-Women, Spring</td>
<td>1 Unit</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate athletic competition. May be taken three times for credit.</td>
</tr>
<tr>
<td>SPORT 320</td>
<td>Cross Country, Intercollegiate-Men</td>
<td>2 Units</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate athletic competition. May be taken three times for credit.</td>
</tr>
<tr>
<td>SPORT 325</td>
<td>Cross Country, Intercollegiate-Women</td>
<td>2 Units</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate athletic competition.</td>
</tr>
<tr>
<td>SPORT 330</td>
<td>Football, Intercollegiate-Men</td>
<td>2 Units</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate athletic competition.</td>
</tr>
<tr>
<td>SPORT 340</td>
<td>Golf, Intercollegiate-Men</td>
<td>2 Units</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate athletic competition.</td>
</tr>
<tr>
<td>SPORT 345</td>
<td>Golf, Intercollegiate-Women</td>
<td>2 Units</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate athletic competition.</td>
</tr>
<tr>
<td>SPORT 350</td>
<td>Soccer, Intercollegiate-Men</td>
<td>2 Units</td>
<td>This course covers fundamentals, rules, individual and/or team strategies appropriate to intercollegiate athletic competition.</td>
</tr>
</tbody>
</table>
This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.

**SPORT 355 Soccer, 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 365 Softball, 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 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
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 405 Volleyball, 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 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.
Physical Education

PET 302 Introduction to Physical Education 2 Units
Advisory: ENGWR 102 or ENGWR 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.

Team Activity

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: 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 to provide a greater awareness of soccer by teaching advanced skills, strategy, and rules that govern the play of soccer.

TMACT 305 Intramural Sports/Campus Recreation 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Advisory: High school varsity or college level softball; 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 instruction in advanced techniques of offensive and defensive softball skills.

TMACT 310 Baseball 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 defense, offense, pitching, base running, and conditioning which is designed to develop advanced skills in fielding, pitching, base running, and hitting. Emphasis will be placed on team offensive and defensive strategies at an advanced playing level.

TMACT 315 Intramural Softball 1 Unit
Advisory: High school varsity or college level softball; 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 to develop basic softball skills and understanding of slow pitch rules in tournament format.

TMACT 320 Basketball 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 features tournament scrimmage play to improve offensive, defensive, and team skills for advanced basketball.

TMACT 325 Intramural Sports/Water Polo 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Advisory: High school varsity or college level softball; 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 instruction in advanced techniques of offensive and defensive softball skills.

TMACT 330 Volleyball 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 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: 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 instruction in advanced techniques of offensive and defensive football skills.

TMACT 350 Softball, Fast Pitch 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Advisory: High school varsity or college level softball; 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 to develop basic softball skills and understanding of slow pitch rules in tournament format.

TMACT 355 Intramural Sports/Water Polo 1 Unit
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Advisory: High school varsity or college level softball; 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 instruction in advanced techniques of offensive and defensive football skills.
<table>
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<tr>
<td>PET 307</td>
<td>Mental Skills for Sports Performance</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>PET 312</td>
<td>Theory and Techniques of Adapted Physical Education</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>PET 313</td>
<td>Laboratory in Adapted Physical Education</td>
<td>1-2</td>
<td>This course offers practical experience in the implementation of physical activity for students with disabilities. This course may be taken three times.</td>
</tr>
<tr>
<td>PET 330</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>3</td>
<td>This course is an introduction to injury prevention, injury care, and rehabilitation of athletic injuries. It includes basic information of sports injuries, their causes and treatments.</td>
</tr>
<tr>
<td>PET 334</td>
<td>Practical Applications in Athletic Training/Sports Medicine</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>PET 340</td>
<td>Theory of Baseball</td>
<td>1</td>
<td>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.</td>
</tr>
<tr>
<td>PET 344</td>
<td>Theory of Basketball</td>
<td>1</td>
<td>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.</td>
</tr>
<tr>
<td>PET 350</td>
<td>Theory of Football</td>
<td>1</td>
<td>This course covers current problems and new trends in football with emphasis on basic fundamentals, team defense and offense. May be taken twice.</td>
</tr>
<tr>
<td>PET 356</td>
<td>Theory of Softball</td>
<td>1</td>
<td>This course covers current problems and new trends in football with emphasis on basic fundamentals, team defense and offense. May be taken twice.</td>
</tr>
<tr>
<td>PET 362</td>
<td>Theory of Swimming</td>
<td>1</td>
<td>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.</td>
</tr>
<tr>
<td>PET 366</td>
<td>Theory of Tennis, Tactics and Strategy</td>
<td>2</td>
<td>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.</td>
</tr>
</tbody>
</table>
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: 18-72 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 18 units

A minimum of 18 units from the following:

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.

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 hours LEC

This course covers the fundamental concepts of astronomy, geology, physics, chemistry and meteorology. It is designed for the student with little or no science background. It is not recommended for science, mathematics, or engineering majors.

**PS 301 Physical Science Laboratory** 1 Unit

Corequisite: PS 300
Advisory: MATH 100
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 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.

Degree: A.S. - Physical Science/Mathematics

**Physics**

**PHYS 310 Conceptual Physics** 3 Units

Advisory: MATH 100
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This is a course for liberal arts majors and students who have not taken a course in physics. It includes selected topics in motion, gravity, heat, sound, electricity, magnetism, light, atomic and nuclear physics.

**PHYS 311 Basic Physics** 3 Units

Prerequisite: MATH 330 with a grade of “C” or better
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This is a survey course for science majors who have had no previous course in physics and who plan to continue with PHYS 410 or 350. Emphasis is on problem solving. Students who have taken PHYS 310 cannot get UC transfer credit for PHYS 311.

**PHYS 312 Conceptual Physics Laboratory** 1 Unit

Corequisite: PHYS 310
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 laboratory course complements PHYS 310. Together with PHYS 310, this course satisfies the UC and CSU general education science lab requirement. Emphasis is placed on scientific observation and measurement and their relationship to physical concepts. This course provides concrete, hands-on observation activities and interpretation of data from a variety of experimental environments.

**PHYS 350 General Physics** 4 Units

Prerequisite: MATH 330 with a grade of “C” or better
Advisory: PHYS 311
General Education: AA/AS 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, the first semester of General Physics, is a transferable course required for life science majors. It includes classical mechanics (including kinematics, statics, dynamics, Newton’s laws of motion, energy and momentum conservation, rigid body motion and simple harmonic motion), fluid mechanics, mechanical waves (including sound), and thermodynamics.

**PHYS 360 General Physics** 4 Units

Prerequisite: PHYS 350 with a grade of “C” or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB

Topics in this course include electric charge, electric fields, AC and DC circuit theory, electromagnetism, optics, wave theory and atomic physics. It is designed for biological science students, including those in pre-medical, pre-dental, agricultural and forestry programs. (CAN PHYS 4); (PHYS SEQ A)
**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 magnetism. It involves problem solving with an emphasis on physics problems 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, diffraction, 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>Area</th>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 310</td>
<td>Cultural Anthropology</td>
<td>3</td>
<td></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>or HIST 308</td>
<td>History of World Civilizations, 1500 to Present</td>
<td>3</td>
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<tr>
<td>POLS 302</td>
<td>Introduction to Government: Foreign</td>
<td>3</td>
<td></td>
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<tr>
<td>POLS 310</td>
<td>Introduction to International Relations</td>
<td>3</td>
<td></td>
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<tr>
<td>and a minimum of 8 units from the following:</td>
<td>8</td>
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<tr>
<td>Transfer level foreign language courses (numbered 300-499).</td>
<td>9</td>
<td></td>
<td></td>
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<tr>
<td>ANTH 330</td>
<td>Magic, Witchcraft, and Religion</td>
<td>3</td>
<td></td>
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<tr>
<td>ARTH 322</td>
<td>Art History of the Non-Western World</td>
<td>3</td>
<td></td>
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<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
<td></td>
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<tr>
<td>ECON 304</td>
<td>Principles of Microeconomics</td>
<td>3</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>World Literature</td>
<td>3</td>
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<tr>
<td>ENGLT 345</td>
<td>Mythologies of the World</td>
<td>3</td>
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<tr>
<td>GEOG 310</td>
<td>Human Geography: Exploring Earth’s Cultural Landscapes</td>
<td>3</td>
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<tr>
<td>GEOG 320</td>
<td>World Regional Geography</td>
<td>3</td>
<td></td>
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<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>
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<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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<td>HIST 308</td>
<td>History of World Civilizations, 1500 to Present</td>
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<td>HIST 364</td>
<td>Asian Civilization</td>
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<td>HIST 365</td>
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<td>HIST 373</td>
<td>History of Mexico</td>
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<td>HIST 480</td>
<td>History of Western Civilization - Honors</td>
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<td>HIST 481</td>
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<td>HUM 300</td>
<td>Classical Humanities</td>
<td>3</td>
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<tr>
<td>HUM 310</td>
<td>Modern Humanities</td>
<td>3</td>
<td></td>
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<tr>
<td>HUM 320</td>
<td>Asian Humanities</td>
<td>3</td>
<td></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 353</td>
<td>Religions of the Far East</td>
<td>3</td>
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<tr>
<td>PHIL 354</td>
<td>Religions of the West</td>
<td>3</td>
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<tr>
<td>POLS 301</td>
<td>Introduction to Government: United States</td>
<td>3</td>
<td></td>
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<tr>
<td>POLS 322</td>
<td>Political Ideologies</td>
<td>3</td>
<td></td>
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<tr>
<td>SOC 300</td>
<td>Introductory Sociology</td>
<td>3</td>
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<tr>
<td>SOSC 310</td>
<td>International Studies - Peace and Conflict Studies</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SOSC 312</td>
<td>International Studies - Current International Development Issues</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

§The 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: AA/AS Area V(b); CSU Area D8; 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: AA/AS 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: AA/AS Area V(b); CSU Area D8; IGETC Area 4H

Course Transferable to UC/CSU

Hours: 54 hours LEC

This course is a survey of the 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 322  Political Ideologies  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 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: 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
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: 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 viewpoint through analysis of selected cases and reading materials. Not to be taken in place of BUS 340 (Business Law) where required. Not open to students who have completed BUS 345.
**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PSYC 300</td>
<td>General Principles</td>
<td>3</td>
</tr>
<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>
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<tr>
<td>PSYC 330</td>
<td>Introductory Statistics for the Behavioral Sciences</td>
<td>3</td>
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<tr>
<td>PSYC 335</td>
<td>Research Methods in Psychology</td>
<td>3</td>
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<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>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>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>
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<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>
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<tr>
<td>HSER 342</td>
<td>Alcoholism: Intervention, Treatment &amp; Recovery</td>
<td>3</td>
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<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>
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<tr>
<td>PSYC 340</td>
<td>Abnormal Behavior</td>
<td>3</td>
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<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 380</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>
</tr>
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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.

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**PSYC 300 General Principles 3 Units**

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 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: AA/AS 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 adjutive 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: AA/AS 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: AA/AS 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: AA/AS 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: PSYC 300 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 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.
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 professional literature, research design, collection of data, statistical analysis and scientific report writing. (CAN PSY 8)

PSYC 340  Abnormal Behavior  3 Units
Prerequisite: PSYC 300 or 305 with a grade of “C” or better
Advisory: ENGWR 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 behaviorism. 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: 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 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: 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 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: 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 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 will be on the exploration of sociocultural, gender-role, sex-role, stereotyping, and 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/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 HSER 330.

PSYC 370  Human Development: A Life Span  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 III(b); CSU Area D9; CSU Area E1
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: 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 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 is 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. 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: 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 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: 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)
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. Not open to students who have completed GERON 330.

PSYC 379  Reminiscence Therapy  3 Units
Same As: GERON 334
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)
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. Not open to students who have completed Gerontology 331.

PSYC 383  Introduction to Organizational Psychology  3 Units
Advisory: PSYC 300, 330, and 335
General Education: AA/AS 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 with the specific focus 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: 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 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: 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 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; ENGWR 300 or 480 with a grade of “C” or better, 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; ENGWR 300 OR ENGWR 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. 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.
- 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.
- For information regarding the P.C. 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.

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.
- 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.
- For information the Basic Police Academy, call (916) 566-2418 or visit the Academy website at: www.sacpd.org/academy/default.htm.
- For information the Regional Community Policing Institute courses call (916) 264-0190 or visit the webpage atwww.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.

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.
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 its 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

<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>
</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>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></td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>RE 300</td>
<td>California Real Estate Principles</td>
<td>3</td>
</tr>
<tr>
<td>RE 310</td>
<td>Real Estate Practice</td>
<td>3</td>
</tr>
<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 340</td>
<td>Real Estate Appraisal</td>
<td>3</td>
</tr>
</tbody>
</table>

And a minimum of 1 unit from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 210</td>
<td>The Business Plan</td>
<td>1</td>
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<tr>
<td>BUS 212</td>
<td>Marketing for Small Businesses</td>
<td></td>
</tr>
<tr>
<td>CISC 300</td>
<td>Computer Familiarization</td>
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</tr>
<tr>
<td>CISC 305</td>
<td>Introduction to the Internet</td>
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</table>

And a minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 320</td>
<td>Concepts in Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Professionally</td>
<td>3</td>
</tr>
<tr>
<td>MKT 314</td>
<td>Advertising</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.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 300</td>
<td>California Real Estate Principles</td>
<td>3</td>
</tr>
<tr>
<td>RE 310</td>
<td>Real Estate Practice</td>
<td>3</td>
</tr>
<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 340</td>
<td>Real Estate Appraisal</td>
<td>3</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>ACCT 101</td>
<td>Fundamentals of College Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 301</td>
<td>Financial Accounting</td>
<td></td>
</tr>
</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.

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: ENGWR 102 or ENGWR 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 340  Real Estate Appraisal  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 will cover the purposes of appraisals, the appraisal process, the different approaches to value, and the methods and techniques used to determine the value of various types of property. Emphasis will be on residential and single-unit property but will include an introduction to the valuation of income producing property. This course applies toward the educational requirements for the broker's examination.

RE 360  Real Estate Economics  3 Units  
Advisory: RE 300.  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course covers the nature and classification of real estate and real estate investments. Topics include economic development of real property, real estate cycles and market trends, and governmental and private sector influence on the economics of real estate. It is recommended that this course be taken last in the real estate series. This course meets one of the educational requirements to qualify for the California 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</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 372</td>
<td>Child Development (3)</td>
<td></td>
</tr>
<tr>
<td>GERON 302</td>
<td>Psychology of Aging: Adult Development and Aging (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 374</td>
<td>Psychology of Aging: Adult Development and Aging (3)</td>
<td></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 (3)</td>
<td>3</td>
</tr>
<tr>
<td>or SPEECH 331</td>
<td>Group Discussion (3)</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.
Course Transferable to CSU
Hours: 18-72 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, life-supporting mechanical ventilation, 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.

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.arc.losrios.edu/edhealth/respcare.html, and are due in the Health and Education Office no later than 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>Requirements for Degree</th>
<th>73-74 Units</th>
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<tbody>
<tr>
<td>BIOL 430</td>
<td>Anatomy and Physiology</td>
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<tr>
<td>BIOL 431</td>
<td>Anatomy and Physiology</td>
</tr>
<tr>
<td>BIOL 440</td>
<td>General Microbiology</td>
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<td>GISA 305</td>
<td>Beginning Word Processing</td>
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<tr>
<td>GISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
</tr>
<tr>
<td>GISC 300</td>
<td>Computer Familiarization</td>
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<tr>
<td>ENGWR 300</td>
<td>College Composition (3)</td>
</tr>
<tr>
<td>or ESLW 340</td>
<td>Advanced Composition (4)</td>
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<tr>
<td>MATH 100</td>
<td>Elementary Algebra</td>
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<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</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>
</tr>
<tr>
<td>RC 111</td>
<td>Applied Cardiopulmonary Physiology</td>
</tr>
<tr>
<td>RC 112</td>
<td>Patient Assessment - Introduction to Clinical Problem Solving</td>
</tr>
<tr>
<td>RC 113</td>
<td>Patient Assessment Techniques</td>
</tr>
<tr>
<td>RC 120</td>
<td>Pharmacology for Respiratory Care</td>
</tr>
<tr>
<td>RC 121</td>
<td>Cardiopulmonary Pathophysiology</td>
</tr>
<tr>
<td>RC 122</td>
<td>Theory and Techniques I - Fundamental Respiratory Care</td>
</tr>
<tr>
<td>RC 123</td>
<td>Fundamental Respiratory Care Techniques</td>
</tr>
<tr>
<td>RC 130</td>
<td>Theory II - Adult Critical Care Techniques/Special Procedures</td>
</tr>
<tr>
<td>RC 131</td>
<td>Techniques II - Adult Critical Care Techniques/ Special Procedures</td>
</tr>
<tr>
<td>RC 132</td>
<td>Clinical Application: Adult Critical Care Techniques/ Special Procedures</td>
</tr>
<tr>
<td>RC 140</td>
<td>Theory III - Respiratory Care in Specialty Areas</td>
</tr>
<tr>
<td>RC 141</td>
<td>Techniques III - Neonatal/Pediatric and Cardiopulmonary Rehabilitation Techniques</td>
</tr>
<tr>
<td>RC 142</td>
<td>Clinical Application: Neonatal/Pediatric and Cardiopulmonary Rehabilitation Techniques</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 and 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. 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 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, and 123; and PHYS 310.
Hours: 54 hours LEC

The 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 ventilator 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, 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>ISER 300</td>
<td>Introduction to Human Services</td>
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<tr>
<td>MGMT 100</td>
<td>Management of Change (3)</td>
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<tr>
<td>or MGMT 372</td>
<td>Human Relations and Organizational Behavior (3)</td>
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<td>MGMT 300</td>
<td>Introduction to Modern Management (3)</td>
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<td>or MGMT 362</td>
<td>Techniques of Management (3)</td>
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<td>MGMT 360</td>
<td>Management Communication</td>
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<td>PSYC 300</td>
<td>General Principles (3)</td>
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<tr>
<td>or PSYC 305</td>
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<tr>
<td>SILA 305</td>
<td>American Sign Language 1</td>
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<tr>
<td>SILA 306</td>
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<td>SILA 316</td>
<td>American Sign Language 4</td>
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<tr>
<td>SILA 330</td>
<td>Impact of Deafness</td>
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<tr>
<td>SILA 332</td>
<td>Educating Deaf People</td>
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<tr>
<td>And a minimum of 3 units from the following:</td>
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</tr>
<tr>
<td>SILA 498</td>
<td>Work Experience in Sign Language Studies (1 - 4)</td>
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</tbody>
</table>

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

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<td>or PSYC 305</td>
<td>Personal Growth and Adjustment (3)</td>
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<td>PSYC 370</td>
<td>Human Development: A Life Span</td>
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Degree: A.A. - Sign Language Studies: Business
A.A. - Sign Language Studies: Human Services
A.A. - Sign Language Studies: Interpreter Training

Certificates: Sign Language Studies: Business
Sign Language Studies: Human Services
Sign Language Studies: Interpreter Training

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
ECE 312 Child Development (3)
or PSYC 372 Child Development (3)
ENGED 320 Service Learning: Tutoring Elementary Students in Reading (3)
ISER 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.

Sign Language Studies: Interpreter Training Degree

The Sign Language Studies Interpreting program provides an integrated series of coursework in American Sign Language (ASL) and ASL/English interpretation. A foundation in ASL discourse and interpretation is established through theoretical models and a knowledge base. 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 as it is required by the Registry of Interpreters of the Deaf by 2008.

Requirements for Degree 54 Units

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<td>SILA 320</td>
<td>American Sign Language Discourse</td>
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<td>SILA 322</td>
<td>Numbers, Fingerspelling, Classifiers</td>
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<tr>
<td>INTRP 300</td>
<td>Ethics and Professional Standards of Interpreting</td>
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<td>INTRP 305</td>
<td>Consecutive Interpreting</td>
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</tr>
<tr>
<td>INTRP 307</td>
<td>Text Analysis and Translation: ASL and English</td>
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<tr>
<td>INTRP 310</td>
<td>Introduction to Deaf Blind Interpreting</td>
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<td>INTRP 312</td>
<td>Introduction to Oral Transmission</td>
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<td>INTRP 320</td>
<td>Simultaneous Interpreting</td>
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<td>INTRP 314</td>
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<td>INTRP 330</td>
<td>Introduction to Educational Interpreting, K-12</td>
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<td>INTRP 332</td>
<td>Introduction to Educational Interpreting, Post Secondary</td>
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<tr>
<td>INTRP 334</td>
<td>Introduction to Medical Interpreting</td>
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Sign Language Studies: Interpreter Training Certificate

The Sign Language Studies Interpreting program provides an integrated series of coursework in American Sign Language (ASL) and ASL/English interpretation. A foundation in ASL discourse and interpretation is established through theoretical models and a knowledge base. The emphasis is on the practical application of these models and knowledge in the areas of human relations, language skills, interpreting skills and professionalism.

Requirements for Certificate 54 Units

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<tr>
<td>INTRP 330</td>
<td>Introduction to Educational Interpreting, K-12 (1)</td>
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<td>INTRP 352</td>
<td>Introduction to Educational Interpreting, Post Secondary (1)</td>
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<td>INTRP 354</td>
<td>Introduction to Medical Interpreting (1)</td>
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<td>INTRP 356</td>
<td>Introduction to Performing Arts Interpreting (1)</td>
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<td>INTRP 338</td>
<td>Introduction to Social Services and Employment Interpreting (1)</td>
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<tr>
<td>INTRP 340</td>
<td>Introduction to Telephone, Television and Remote Relay Interpreting (0.5)</td>
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<td>INTRP 342</td>
<td>Introduction to Religious Interpreting (0.5)</td>
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<td>INTRP 344</td>
<td>Introduction to Working with a Certified Deaf Interpreter (0.5)</td>
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<tr>
<td>INTRP 346</td>
<td>Specialized Vocabulary: Math and Computers (0.5)</td>
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<tr>
<td>INTRP 348</td>
<td>Specialized Vocabulary: Science &amp; Geography (0.5)</td>
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*The Interpreting Certificate cannot be completed in one year.

Sign Language Interpreting

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<th>Course Title</th>
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<tr>
<td>INTRP 300</td>
<td>Ethics and Professional Standards of Interpreting</td>
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<tr>
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<tr>
<td>Advisory: SILA 330, 332, 498.</td>
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<td>Course Transferable to CSU</td>
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<tr>
<td>Hours: 54 hours LEC</td>
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This course provides a working knowledge of the profession of interpreting. It includes the history of the interpreting field, the Registry of Interpreters for the Deaf Code of Ethics, interpersonal relations, the roles and responsibilities of interpreters, and an overview of the settings involved.

<table>
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<tr>
<th>Course Code</th>
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<td>INTRP 305</td>
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<tr>
<td>Prerequisite: SILA 320 and SILA 322 with a grade of “C” or better.</td>
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<tr>
<td>Hours: 54 hours LEC</td>
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</table>

This course provides basic skills in consecutive sign language interpreting (sign-to-voice and voice-to-sign). Primary emphasis includes a theoretical analysis of the interpreting process, reinforcement of ASL skills, and development of the fundamental interpreting skills.

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>INTRP 307</td>
<td>Text Analysis and Translation: ASL and English</td>
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<td>Advisory: SILA 320.</td>
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<tr>
<td>Hours: 54 hours LEC</td>
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</table>

This course compares and contrasts the grammatical structures and patterns of American Sign Language and English. Comparison of the phonology, morphology, and syntax found in ASL and English will be the focus, with emphasis on the practical use of such knowledge.

<table>
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<tbody>
<tr>
<td>INTRP 310</td>
<td>Introduction to Deaf Blind Interpreting</td>
<td>0.5</td>
</tr>
<tr>
<td>Prerequisite: INTRP 300 with a grade of “C” or better.</td>
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<td></td>
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<tr>
<td>Course Transferable to CSU</td>
<td></td>
<td></td>
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<tr>
<td>Hours: 9 hours LEC</td>
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</tbody>
</table>

This course provides students exposure to, background in, and techniques for working with members of the deaf-blind community.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRP 312</td>
<td>Introduction to Oral Transmission</td>
<td>0.5</td>
</tr>
<tr>
<td>Prerequisite: INTRP 300 with a grade of “C” or better.</td>
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<td></td>
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<tr>
<td>Course Transferable to CSU</td>
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<tr>
<td>Hours: 9 hours LEC</td>
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</tbody>
</table>

This course provides exposure to, background in, and techniques for oral transmission and interaction with oral deaf people.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>INTRP 314</td>
<td>Introduction to Multicultural Communication</td>
<td>0.5</td>
</tr>
<tr>
<td>Prerequisite: SILA 316 with a grade of “C” or better.</td>
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<tr>
<td>Advisory: INTRP 305.</td>
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<tr>
<td>Course Transferable to CSU</td>
<td></td>
<td></td>
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<tr>
<td>Hours: 9 hours LEC</td>
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</tbody>
</table>

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 ethic diversity in the interpreting profession.
This course is an introduction to interpreting in the educational setting. Environmental considerations, vocabulary development, resource building, introductory knowledge, and ethics will be considered.

INTRP 332 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 333 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 339 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 340 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 342 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 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 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 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 scientific terms and locational signs.
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.

**SILA 305 American Sign Language 1** 4 Units  
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 sign language. It provides instructional activities to become competent in communication with deaf people. The emphasis is on nonverbal communication.

**SILA 306 American Sign Language 2** 4 Units  
Prerequisite: SILA 305 with a grade of “C” or better  
General Education: AA/AS Area I  
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 presented include grammatical features such as descriptors, differentiation between cardinal/ordinal numbers, contrastive structure, temporal aspect markers and temporal sequencing.

**SILA 315 American Sign Language 3** 4 Units  
Prerequisite: SILA 306 with a grade of “C” or better  
General Education: AA/AS Area I; CSU Area C  
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 last in a series of four courses in American Sign Language. It emphasizes expressive communication skills that involve making major life decisions, role shifting in situations involving two or more people, narrating factual information, explaining rules and/or processes, games, narrating accidents, and using money. It incorporates information and activities previously learned about Deaf Culture into these narratives.

This course introduces signing beyond the conversational level. Complex and diverse signed situations are presented to improve both expressive and receptive skills. The focus will be on the diversity of register, affect, and style in American Sign Language.

**SILA 322 Numbers, Fingerspelling, Classifiers** 3 Units  
Prerequisite: SILA 316.  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course will focus on providing more advanced experiences and communication techniques with expressive and receptive fingerspelling, the use of classifiers, and the use of ASL number systems (numbers will include but not be limited to cardinal, ordinal, informational numbers: numbers related to time, temporal aspect signs, measurements, sports, and mathematical numbers).

This course is a survey of four institutions which have critical impact on the psycho-social development of people: family, education, work, and society. It provides awareness and sensitivity to the unique challenges of deafness and how they influence personal-social and communication competencies of the deaf person. Student selected visits to community events are required.

**SILA 332 Educating Deaf People** 3 Units  
Advisory: ENGWR 102, 103 or ESLW 320 or placement by assessment process.  
Course Transferable to CSU  
Hours: 54 hours LEC  
This is a survey course of topics related to educating deaf children, adults, and multi-handicapped individuals. It also covers teaching methods and philosophies, school placement issues, child development, and methods of coping with developmental stages. Field trips may be required.

**SILA 344 Number Systems in ASL** .5 Units  
Advisory: SILA 305.  
Course Transferable to CSU  
Hours: 9 hours LEC  
This module provides hands-on experiences using ASL numbers with the cardinal/ordinal, incorporation and unique systems. 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SILA 348</td>
<td>Fingerspelling II</td>
<td>.5</td>
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<td></td>
<td>Prerequisite: SILA 346.</td>
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<td>Course Transferable to CSU</td>
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<td>Hours: 9 hours LEC</td>
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<td></td>
<td>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.</td>
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<tr>
<td>SILA 350</td>
<td>Classifiers</td>
<td>.5</td>
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<td></td>
<td>Advisory: SILA 305.</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 9 hours LEC</td>
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<td></td>
<td>This module provides extensive hands-on experience with using basic and complex classifiers. Credit/no credit only.</td>
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<tr>
<td>SILA 352</td>
<td>Signing for Dependency Situations</td>
<td>.5</td>
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<td>Advisory: SILA 306.</td>
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<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 9 hours LEC</td>
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<td></td>
<td>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.</td>
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<tr>
<td>SILA 354</td>
<td>Life Situations</td>
<td>.5</td>
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<td>Advisory: SILA 305.</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 9 hours LEC</td>
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<tr>
<td></td>
<td>This module will provide hands-on experiences with signs that relate to food shopping, preparing food, common household chores, and holiday seasons. Credit/no credit only.</td>
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<tr>
<td>SILA 356</td>
<td>Pronominals</td>
<td>.5</td>
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<td></td>
<td>Advisory: SILA 305.</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 9 hours LEC</td>
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<td></td>
<td>This course will focus on advanced pronoun use with expressive and receptive skill in use of pronominals through hands-on activities. Credit/no credit only.</td>
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<tr>
<td>SILA 360</td>
<td>Non-Verbal Communication</td>
<td>.5</td>
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<td></td>
<td>Advisory: SILA 305.</td>
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<td>Course Transferable to CSU</td>
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<td>Hours: 9 hours LEC</td>
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<td></td>
<td>This module provides an introduction to gesture and mime processes that are fundamental to American Sign Language. Credit/no credit only.</td>
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<tr>
<td>SILA 362</td>
<td>Introduction to the Interpreting Profession</td>
<td>.5</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 9 hours LEC</td>
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<td></td>
<td>This module will include discussion of trends, training requirements, certification requirements, traits and characteristics needed to become a successful interpreter in the Deaf community. Credit/No credit only.</td>
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<tr>
<td>SILA 364</td>
<td>Political and Legal Signs</td>
<td>.5</td>
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<td></td>
<td>Advisory: SILA 306.</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>Hours: 9 hours LEC</td>
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<td></td>
<td>This module introduces signs related to advocacy efforts, the political/legislative process, and the legal system as it relates to the Deaf community. Credit/no credit only.</td>
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<tr>
<td>SILA 368</td>
<td>Signs for Sports</td>
<td>.5</td>
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<tr>
<td></td>
<td>Advisory: SILA 306.</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>Hours: 9 hours LEC</td>
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<td></td>
<td>This module addresses signs related to sports, sports events, and recreational activities enjoyed by members of the Deaf community. Credit/no credit only.</td>
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<tr>
<td>SILA 370</td>
<td>Non-Manual Signals in ASL</td>
<td>.5</td>
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<td></td>
<td>Advisory: SILA 305.</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>Hours: 9 hours LEC</td>
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<tr>
<td></td>
<td>This module illustrates the importance of non-manual signals in ASL. Discussion will relate to the role of non-manual signals as adverbs as grammatical distinctions in certain clauses, and as linked with a specific sign. Credit/no credit only.</td>
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<tr>
<td>SILA 494</td>
<td>Topics in Sign Language Studies</td>
<td>.5-3</td>
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<td></td>
<td>Prerequisite: SILA 305.</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 9-54 hours LEC</td>
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<tr>
<td></td>
<td>Each module is a study of a specific topic or a technique in the area of sign language or deafness. Credit/no credit only.</td>
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<tr>
<td>SILA 498</td>
<td>Work Experience in Sign Language Studies</td>
<td>1-3</td>
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<td></td>
<td>Prerequisite: SILA 305 with a grade of “C” or better.</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 9 hours LEC; 30-190 hours LAB</td>
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<td></td>
<td>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.</td>
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</tr>
</tbody>
</table>
### 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

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>18</td>
<td>A minimum of 18 units from the following:</td>
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<tr>
<td></td>
<td>Transferable courses must be selected from four of the following areas: anthropology, economics, geography, history, philosophy, political science, psychology (except PSYC 355), and sociology. Courses used for General Education purposes cannot be used for this degree.</td>
</tr>
</tbody>
</table>

#### 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

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>29</td>
<td>ANTH 310 Cultural Anthropology 3</td>
</tr>
<tr>
<td></td>
<td>HIST 307 History of World Civilizations to 1500 (3) 3</td>
</tr>
<tr>
<td>or HIST 308 History of World Civilizations, 1500 to Present (3) 3</td>
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</tr>
<tr>
<td>POLS 302 Introduction to Government: Foreign 3</td>
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<tr>
<td>POLS 310 Introduction to International Relations 3</td>
<td></td>
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<tr>
<td>And a minimum of 8 units from the following:</td>
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<tr>
<td></td>
<td>Transfer level foreign language courses (numbered 300-499). 8</td>
</tr>
<tr>
<td>And a minimum of 9 units from the following:</td>
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<tr>
<td></td>
<td>ANTH 330 Magic, Witchcraft, and Religion (3) 9</td>
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<tr>
<td>ARTH 322 Art History of the Non-Western World (3) 9</td>
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<tr>
<td>ECON 302 Principles of Macroeconomics (3) 9</td>
<td></td>
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<tr>
<td>ECON 304 Principles of Microeconomics (3) 9</td>
<td></td>
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<tr>
<td>ENGL 340 World Literature (5) 9</td>
<td></td>
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<tr>
<td>ENGL 341 World Literature (5) 9</td>
<td></td>
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<tr>
<td>ENGL 345 Mythologies of the World (3) 9</td>
<td></td>
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<tr>
<td>GEOG 310 Human Geography: Exploring Earth’s Cultural Landscapes (3) 9</td>
<td></td>
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<tr>
<td>GEOG 320 World Regional Geography (3) 9</td>
<td></td>
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<tr>
<td>HIST 300 History of Western Civilization (3) 9</td>
<td></td>
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<tr>
<td>HIST 302 History of Western Civilization (3) 9</td>
<td></td>
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<tr>
<td>HIST 305 Women in Western Civilization (3) 9</td>
<td></td>
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<tr>
<td>HIST 307 History of World Civilizations to 1500 (3) 9</td>
<td></td>
</tr>
<tr>
<td>HIST 308 History of Western Civilization, 1500 to Present (3) 9</td>
<td></td>
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<tr>
<td>HIST 364 Asian Civilization (3) 9</td>
<td></td>
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<tr>
<td>HIST 365 Asian Civilization (3) 9</td>
<td></td>
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<tr>
<td>HIST 373 History of Mexico (3) 9</td>
<td></td>
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<tr>
<td>HIST 480 History of Western Civilization - Honors (3) 9</td>
<td></td>
</tr>
</tbody>
</table>

1The 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

*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 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

*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 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; TCSU 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; TCSU 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**
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**  
Formerly: Independent Studies 49I  
Prerequisite: 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**  
Formerly: Special Studies 49  
Prerequisite: College course 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.
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 323  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 subcultural 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

POLS 301  Introduction to Government: United States 3
SGVT 300  Introduction to Student Government 2
SGVT 310  Leadership Development 3

And a minimum of 9 units from the following:

ANTH 310  Cultural Anthropology (3)
PHIL 310  Introduction to Ethics (3)
or PHIL 320  Logic and Critical Reasoning (3)
PSYC 300  General Principles (3)
or PSYC 305  Personal Growth and Adjustment (3)
SOC 301  Social Problems (3)
or SOC 342  Women in American Culture (3)
SPEECH 331  Group Discussion (3)
or SPEECH 301  Public Speaking (3)
or SPEECH 302  Persuasive Speech (3)

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 Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 300</td>
<td>Introduction to the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I (3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 480</td>
<td>Honors Theory and Techniques of Acting (3)</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 (3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 357</td>
<td>Acting for the Camera II (3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 362</td>
<td>Styles of Acting: Classical (3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 366</td>
<td>Styles of Acting: Modern (3)</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 I</td>
<td>2</td>
</tr>
<tr>
<td>And a minimum of 2 units from the following:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>TA 404</td>
<td>Techniques of Puppetry (3)</td>
<td></td>
</tr>
<tr>
<td>TA 422</td>
<td>Stage Lighting (5)</td>
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<tr>
<td>TA 424</td>
<td>Advanced Technical Theatre (3)</td>
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<tr>
<td>TA 430</td>
<td>Costume Construction (3)</td>
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<tr>
<td>TA 434</td>
<td>Vintage Costuming (0.5 - 2)</td>
<td></td>
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<tr>
<td>TA 435</td>
<td>History and Theory of Costuming (3)</td>
<td></td>
</tr>
<tr>
<td>TA 440</td>
<td>Arts Management (3)</td>
<td></td>
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<tr>
<td>And a minimum of 2 units from the following:</td>
<td>2</td>
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</tr>
<tr>
<td>TA 460</td>
<td>Rehearsal and Performance (0.5 - 3)</td>
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<tr>
<td>TA 461</td>
<td>Rehearsal and Performance - Drama (0.5 - 3)</td>
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<tr>
<td>TA 462</td>
<td>Rehearsal and Performance - Comedy (0.5 - 3)</td>
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<tr>
<td>TA 463</td>
<td>Rehearsal and Performance - Classical (0.5 - 3)</td>
<td></td>
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<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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<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:</td>
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<td></td>
</tr>
<tr>
<td>TA 356</td>
<td>Acting for the Camera I (3)</td>
<td></td>
</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>TA 370</td>
<td>Theatre Movement (2)</td>
<td></td>
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<tr>
<td>TA 375</td>
<td>Voice, Diction and Dialects (5)</td>
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</tr>
<tr>
<td>TA 377</td>
<td>Musical Theatre Techniques (3)</td>
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</tr>
<tr>
<td>TA 390</td>
<td>Directing and Play Production (3)</td>
<td></td>
</tr>
<tr>
<td>TA 397</td>
<td>Introduction to Readers’ Theatre (3)</td>
<td></td>
</tr>
<tr>
<td>TA 400</td>
<td>Creative Drama for Children (5)</td>
<td></td>
</tr>
<tr>
<td>TA 406</td>
<td>Children’s Theatre (3)</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 4 units from the following:</td>
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<td></td>
</tr>
<tr>
<td>2 TA courses not used to fulfill other requirements for the major.</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1 Earned by participation in two productions.</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

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, 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 Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 300</td>
<td>Introduction to the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 350</td>
<td>Theory and Techniques of Acting I (3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 480</td>
<td>Honors Theory and Techniques of Acting (3)</td>
<td>3</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft</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>TA 460</td>
<td>Rehearsal and Performance (0.5 - 3)</td>
<td></td>
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<tr>
<td>TA 461</td>
<td>Rehearsal and Performance - Drama (0.5 - 3)</td>
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<tr>
<td>TA 462</td>
<td>Rehearsal and Performance - Comedy (0.5 - 3)</td>
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<tr>
<td>TA 463</td>
<td>Rehearsal and Performance - Classical (0.5 - 3)</td>
<td></td>
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<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>
<td></td>
</tr>
<tr>
<td>TA 475</td>
<td>Fundamentals of Repertory Production (1 - 6)</td>
<td></td>
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<tr>
<td>And a minimum of 7 units from the following:</td>
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<tr>
<td>TA 404</td>
<td>Techniques of Puppetry (3)</td>
<td></td>
</tr>
<tr>
<td>TA 422</td>
<td>Stage Lighting (5)</td>
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<tr>
<td>TA 424</td>
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<td>TA 430</td>
<td>Costume Construction (3)</td>
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<tr>
<td>TA 434</td>
<td>Vintage Costuming (0.5 - 2)</td>
<td></td>
</tr>
<tr>
<td>or TA 434</td>
<td>Vintage Costuming (0.5 - 2)</td>
<td></td>
</tr>
<tr>
<td>TA 435</td>
<td>History and Theory of Costuming (3)</td>
<td></td>
</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-Up I I (2)</td>
<td></td>
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<tr>
<td>TA 440</td>
<td>Arts Management (3)</td>
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<tr>
<td>And a minimum of 4 units from the following:</td>
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<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II (3)</td>
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<tr>
<td>TA 356</td>
<td>Acting for the Camera I (3)</td>
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<tr>
<td>TA 357</td>
<td>Acting for the Camera II (3)</td>
<td></td>
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<tr>
<td>TA 360</td>
<td>Styles of Acting (3)</td>
<td></td>
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<tr>
<td>TA 362</td>
<td>Styles of Acting: Classical (3)</td>
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<td>Styles of Acting: Modern (3)</td>
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<td>TA 377</td>
<td>Musical Theatre Techniques (3)</td>
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<tr>
<td>TA 390</td>
<td>Directing and Play Production (3)</td>
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</tr>
</tbody>
</table>

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

Requirements for Degree: A.A. - Theatre Arts: Acting

Certificates: Acting Children’s Theatre Costuming Film Musical Theatre Technical Theatre

Certificates: Acting Children’s Theatre Costuming Film Musical Theatre Technical Theatre

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

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.

Requirements for Certificate

13-17 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<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>
<td></td>
</tr>
<tr>
<td>or TA 375</td>
<td>Voice, Diction and Dialects (3)</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 Puppetry (3)</td>
<td></td>
</tr>
<tr>
<td>or ENGL 372</td>
<td>Children and Literature: Storytelling (1)</td>
<td>2 - 3</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft (3)</td>
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<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>
<td></td>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:

1 Earned by enrollment for a minimum of 0.5 units in each of two productions for a total of 2 units.
2 Selected from three or more distinct courses on the list.

Theatre Arts

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>TA 351</td>
<td>Theory and Techniques of Acting II</td>
<td>3</td>
</tr>
<tr>
<td>TA 357</td>
<td>Theatre Movement</td>
<td>2</td>
</tr>
<tr>
<td>TA 357</td>
<td>Voice, Diction and Dialects</td>
<td>3</td>
</tr>
<tr>
<td>TA 387</td>
<td>Stage Make-up I</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
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</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 362</td>
<td>Styles of Acting: Classical</td>
<td></td>
</tr>
<tr>
<td>TA 366</td>
<td>Styles of Acting: Modern</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TA 406</td>
<td>Children's Theatre</td>
<td></td>
</tr>
<tr>
<td>TA 460</td>
<td>Rehearsal and Performance (0.5 - 3)</td>
<td></td>
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<tr>
<td>TA 461</td>
<td>Rehearsal and Performance - Drama (0.5 - 3)</td>
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<tr>
<td>TA 462</td>
<td>Rehearsal and Performance - Comedy (0.5 - 3)</td>
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<tr>
<td>TA 463</td>
<td>Rehearsal and Performance - Classical (0.5 - 3)</td>
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<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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<tr>
<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>
</tr>
</tbody>
</table>

And a minimum of 3 units from the following:

1 Any TA course not used to fulfill other requirements
2 Connected with Children's Theatre Touring Performance.

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.

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>TA 315</td>
<td>Introduction to Readers' Theatre (3)</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 319</td>
<td>Diversity in American Film</td>
<td></td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 420</td>
<td>Film Making (2)</td>
<td>3</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</td>
<td></td>
</tr>
</tbody>
</table>

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.

Theatre Arts

Requirements for Certificate

13-17 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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>
<td></td>
</tr>
<tr>
<td>or TA 375</td>
<td>Voice, Diction and Dialects (3)</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>
</tbody>
</table>

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 Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASHN 342</td>
<td>Fashion Illustration (3)</td>
<td>3</td>
</tr>
<tr>
<td>or FASHN 374</td>
<td>Pattern Making and Design (3)</td>
<td></td>
</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>
<td></td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction</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>
<td></td>
</tr>
<tr>
<td>TA 437</td>
<td>Stage Make-up I</td>
<td>2</td>
</tr>
</tbody>
</table>

And a minimum of 1 unit from the following:

1 Rehearsal and Performance (0.5 - 3)
2 Connected with Children's Theatre Touring Performance.
3 Connected with Children's Theatre Touring Performance.

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.

Requirements for Certificate

15 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 310</td>
<td>Introduction to Film</td>
<td>3</td>
</tr>
<tr>
<td>TA 311</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></td>
</tr>
<tr>
<td>And a minimum of 3 units from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 420</td>
<td>Film Making (2)</td>
<td>3</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</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.

**Requirements for Certificate**  
15 Units

- **DANCE 377** Theatre Dance 1
- **MUIVI 310** Voice Class 2
- **TA 351** Theory and Techniques of Acting II 3
- **TA 370** Theatre Movement 2
- **TA 377** Musical Theatre Techniques 3

And a minimum of 3 units from the following: 3

- **TA 465** Rehearsal and Performance - Musical (0.5 - 3)

And a minimum of 1 unit from the following: 1

- **DANCE 310** Jazz Dance (1)
- **DANCE 320** Ballet (1)
- **DANCE 360** Tap Dance (1)
- **MUIVI 311** Voice Class (2)
- **MUIVI 320** Voice Class, Intermediate (2)
- **MUIVI 321** Voice Class, Intermediate (2)
- **MUIVI 390** Beginning Jazz and Popular Vocal Styles (2)
- **MUIVI 391** Advanced Jazz and Popular Vocal Styles (2)
- **TA 362** Styles of Acting: Classical (3)
- **TA 366** Styles of Acting: Modern (3)
- **TA 375** Voice, Diction and Dialects (3)

**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.

**Requirements for Certificate**  
16 Units

- **TA 420** Stagecraft 3
- **TA 422** Stage Lighting 3

And a minimum of 2 units from the following: 2

- **TA 460** Rehearsal and Performance (0.5 - 3)

And a minimum of 3 units from the following: 3

- **TA 424** Advanced Technical Theatre (3)
- **TA 460** Rehearsal and Performance (0.5 - 3)
- **TA 498** Work Experience in Theatre Arts (1 - 4)

And a minimum of 5 units from the following: 5

- **DESIGN 300** Introduction to Design Resources (3)
- **MUSM 140** Concert Sound Reinforcement (2)
- **MUSM 342** Recording Studio Techniques (3)
- **TA 404** Techniques of Puppetry (3)
- **TA 430** Costume Construction (3)
- **TA 457** Stage Make-up I (2)
- **WELD 300** Introduction to Welding (3)

*TA 460 must be taken twice; crew for a minimum of two shows.*

**Musical Theatre Certificate**

**TA 294** Topics in Theatre Arts .5-4 Units

*Hours: 54 hours LEC; 27-162 hours LAB*

This course is designed to give students an opportunity to study topics in theatre which are not included in current course offerings. This course may be taken four times with no duplication of topics.

**TA 300** Introduction to the Theatre 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 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

**TA 302** History and Theory of the Theatre 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 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, ploy, character and historical relevance. The course is recommended for students planning to major in theatre, humanities, English or speech.

**TA 303** History and Theory of the Theatre 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; CSU Area C1; IGETC Area 3A*

*Course Transferable to UC/CSU*

*Hours: 54 hours LEC*

This course is a survey of the history of theatre from the 17th century through modern 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.

**TA 306** Diversity in American Drama (1960 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; AA/AS Area VI; CSU Area C1; IGETC Area 3A*

*Course Transferable to UC/CSU*

*Hours: 54 hours LEC*

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.*
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 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 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 underrepresented 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 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 356 with a “C” or better.
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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 test as well as the voice and movement needs of classical styles. Styles include Greek, Commedia dell’Arte, Shakespeare, Comedie 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 designed to provide opportunities in discovery and solving movement tasks of the actor. The course incorporates exercises to expand the individual’s 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, explores monologue and dialog performances, and develops confidence in speaking and voice production. It emphasizes self-improvement drills involving breath control, resonance, pitch, inflection and articulation and introduces a study of the vocal mechanism, its parts and their functions. Additionally, this course covers the study and application of the International Phonetic Alphabet (IPA), and includes a special study and application of stage dialects and/or accent reduction.

TA 377  **Musical Theatre Techniques**  3 Units  
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 previous 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: acting, 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 includes directing scenes and preparing a prompt book.

TA 397  **Introduction to Readers’ Theatre**  3 Units  
Advisory: ENGWR 102 and ENGRD 116 or ESLR 320, ESLW 320, ESLL 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 literature. 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, improvisation, and creative role-playing into school curriculum and recreation programs. This class is designed for anyone who interacts with pre-school and elementary age children.

TA 404  **Techniques of Puppetry**  3 Units  
Advisory: ENGWR 51 and ENGRD 15 or ESLW 310; or placement through assessment.  
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 I; 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 dramatic presentations of fiction, drama and poetry for an audience of children or young people. It provides the opportunity to analyze and experience the production process from script to stage. Class participation includes the development of a touring children’s production. 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 experience gained from working on department production. (CAN DRAM 10)

**TA 422 Stage Lighting** 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 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: ENGWR 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** 0.5-3 Units  
Advisory: TA 430.  
Course Transferable to CSU  
Hours: 27-162 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** 0.5-2 Units  
Same As: FASHN 334  
Advisory: ENGWR 051 and ENGRD 015, or ESLW 310 and ESLR 310 or placement through assessment process.  
Course Transferable to UC/CSU  
Hours: 9-18 hours LEC; 27-54 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 demonstrates 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: 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  
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 costume 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 440 Arts Management** 3 Units  
Advisory: ENGWR 102 and ENGRD 116 or ESLR 320, ESLW 320, ESLR 310 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** 0.5-3 Units  
Prerequisite: Audition/Interview.  
Course Transferable to UC/CSU  
Hours: 27-162 hours LAB  
This course provides a workshop training experience in the preparation and performance of 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: 27-162 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: 27-162 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: 27-162 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: 27-162 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: 27-162 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: 27-162 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: 27-162 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: 27-162 hours LAB
This course provides intermediate level workshop training experiences in the preparation and performance of classical 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: 0-36 hours LEC; 27-216 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: 0-36 hours LEC; 27-216 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: 0-36 hours LEC; 27-216 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; 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
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; ENGWR 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 corequisites.

TA 494  Topics in Theatre Arts  .5-3 Units
Course Transferable to CSU
Hours: 0-54 hours LEC; 27-162 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
Course Transferable to CSU
Hours: 0-18 hours LEC; 60-300 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.
Contact: Learning Resources  
Phone: (916) 484-8407  
Counseling: (916) 484-8572

### 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: TBA 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.

### Interdisciplinary

**INDIS 1 Becoming an Effective Student**  
3 Units  
Hours: 54 hours LEC  
Introductory course which includes a review of techniques and skills necessary for successful completion of college level courses. Includes a survey of current requirements for various curricular and vocational goals as well as orientation to college, self, and career. Problems of personality development and mental health are considered.

**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: 18-72 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.
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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 102</td>
<td>Introduction to Welding Metallurgy</td>
<td>3</td>
</tr>
<tr>
<td>WELD 116</td>
<td>Welding Inspection</td>
<td>2</td>
</tr>
<tr>
<td>WELD 130</td>
<td>Gas Tungsten Arc Welding</td>
<td>3</td>
</tr>
<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 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 320</td>
<td>Shielded Metal Arc Welding (Stick Electrode Welding)</td>
<td>3</td>
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<tr>
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<td>3</td>
</tr>
<tr>
<td>WELD 322</td>
<td>Advanced Pipe Welding in Shielded Metal Arc</td>
<td>3</td>
</tr>
<tr>
<td>WELD 332</td>
<td>Gas Tungsten Arc Welding (Pipe)</td>
<td>3</td>
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<tr>
<td>WELD 335</td>
<td>Flux Core Arc Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 342</td>
<td>Symbol Reading, Layout and Fabrication</td>
<td>3</td>
</tr>
</tbody>
</table>

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

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>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>
</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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</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>

Mathematics and Blueprint Interpretation (144 hours) Certificate

The Mathematics and Blueprint Interpretation certificate promotes competence in solving mathematical and manufacturing problems that apply to the welding trade. It emphasizes metal placement, measurement and layout of tools used in construction, and the fundamentals of blueprint reading.

**Requirements for Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<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.

<table>
<thead>
<tr>
<th>Requirements for Certificate</th>
<th>12 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 300 Introduction to Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 320 Shielded Metal Arc Welding (Stick Electrode Welding)</td>
<td>3</td>
</tr>
<tr>
<td>WELD 321 Shielded Metal Arc Welding (Stick Electrode Welding)</td>
<td>3</td>
</tr>
<tr>
<td>WELD 322 Advanced Pipe Welding in Shielded Metal Arc</td>
<td>3</td>
</tr>
</tbody>
</table>

Welding Metallurgy and Inspection (270 hours) Certificate
The Welding Metallurgy and Inspection certificate provides the science of metallurgy and weld inspection. Emphasis is on the identification and selection of irons and steel, mechanical and physical properties of metals and crystal structures of metals, rules and regulations of the welding construction industry, and principles, requirements and methods of inspection.

<table>
<thead>
<tr>
<th>Requirements for Certificate</th>
<th>14 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 102 Introduction to Welding Metallurgy</td>
<td>3</td>
</tr>
<tr>
<td>WELD 116 Welding Inspection</td>
<td>2</td>
</tr>
<tr>
<td>WELD 117 Ultrasonic Testing Level One</td>
<td>3</td>
</tr>
<tr>
<td>WELD 118 Ultrasonic Testing Level Two</td>
<td>3</td>
</tr>
<tr>
<td>WELD 300 Introduction to Welding</td>
<td>3</td>
</tr>
</tbody>
</table>

WELD 101 Introduction to Welding and Cutting 1 Unit
Prerequisite: Acceptance into a registered apprenticeship program. Hours: 9 hours LEC; 27 hours LAB
This course is an introduction to welding processes for apprentices. Shielded metal arc, oxyacetylene cutting on joint designs, and positions used in industry are taught. Safety in arc welding and oxyacetylene cutting is also covered.

WELD 102 Introduction to Welding Metallurgy 3 Units
Prerequisite: WELD 300. Hours: 54 hours LEC; 36 hours LAB
This course introduces production of iron and the manufacture of iron and steel in shapes and forms used in industry. The focus is on identification and selection of irons and steels, mechanical and physical properties of metals, and crystal structure of metals. Additionally failure and deformation, the heat treating of steel, and the metallurgy of welds will be covered.

WELD 103 Gas Metal Arc Welding of Sheet Steel 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
This course covers technique application and joint design used in the auto body repair and sheet steel manufacturing industries. Sheet steel applications in the areas of steel decks, panels, storage racks, and joint framing members are presented using Gas Metal Arc Short Circuit Transfer process. Proper safety welding techniques are also covered.

WELD 104 Introduction to Metal Fabrication and Sculpture .5-3 Units
Same As: ART 120
Hours: 0-36 hours LEC; 27-54 hours LAB
This course covers metal sculpture techniques, design principles and materials used for sculpture, functional and non-functional 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.

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 construction 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 technique, theory 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 I 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.
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 123</td>
<td>Welding Certification to D1.5 Bridge Code</td>
<td>1</td>
<td>WELD 320 with a grade of “C” or better.</td>
<td>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 constructional steels. 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.</td>
</tr>
<tr>
<td>WELD 130</td>
<td>Gas Tungsten Arc Welding</td>
<td>3</td>
<td>WELD 300.</td>
<td>This course covers tungsten inert gas welding of aluminum, stainless steel, and other metals used in industry.</td>
</tr>
<tr>
<td>WELD 133</td>
<td>Gas Metal Arc Welding, Semi-Automatic Processes</td>
<td>3</td>
<td>WELD 133 with a grade of “C” or better.</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>
</tr>
<tr>
<td>WELD 134</td>
<td>Gas Metal Arc Welding of Non-Ferrous Metals</td>
<td>2</td>
<td>WELD 133 with a grade of “C” or better.</td>
<td>This course will cover semi-automatic wire feed welding covering fine through heavy wire welding on non-ferrous steel plate gauge of varying thickness. Joint design, gas variations and all welding positions are covered. Emphasis is on aluminum, stainless steels, and mixtures of gases. Introduction to open groove plate and pipe of mild steel using Gas Metal Arc and Flux Cored Arc Welding processes. A performance qualification test is optional at end of course.</td>
</tr>
<tr>
<td>WELD 140</td>
<td>Mathematics for Welding Technicians</td>
<td>3</td>
<td>WELD 320 with a grade of “C” or better.</td>
<td>General Education: AA/AS Area II(b) &lt;br&gt; Hours: 54 hours LEC &lt;br&gt; This course provides practical mathematics as they are applied to technical and trade work. It involves applying mathematics principles to the welding trade. Areas covered are common fractions, decimal fractions, 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>
</tr>
<tr>
<td>WELD 150</td>
<td>Employability Skills for Technical Careers</td>
<td>2</td>
<td>AT 107 and ET 250</td>
<td>General Education: AA/AS Area III(b) &lt;br&gt; Hours: 36 hours LEC &lt;br&gt; 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>
</tr>
<tr>
<td>WELD 130</td>
<td>Advanced Student Projects</td>
<td>2</td>
<td>WELD 300 with a grade of “C” or better.</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>
</tr>
<tr>
<td>WELD 294</td>
<td>Topics in Welding</td>
<td>.5-5</td>
<td>To be determined for each topic.</td>
<td>Hours: 9 hours LEC; 27-270 hours LAB &lt;br&gt; Individualized course developed in cooperation with industry to meet specialized training needs. This course may be taken four times with different topics.</td>
</tr>
<tr>
<td>WELD 300</td>
<td>Introduction to Welding</td>
<td>3</td>
<td>WELD 300 with a grade of “C” or better.</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>
</tr>
<tr>
<td>WELD 320</td>
<td>Shielded Metal Arc Welding (Stick Electrode Welding)</td>
<td>3</td>
<td>WELD 300 with a grade of “C” or better.</td>
<td>Course Transferable to CSU &lt;br&gt; Hours: 36 hours LEC; 54 hours LAB &lt;br&gt; This course will cover pre-employment training for welding technicians. Emphasis on developing manipulative proficiency in the use of shielded metal-arc welding in the flat, horizontal, vertical and overhead positions on light and heavy gauge material. Emphasis will also be placed on groove welding of plate, limited and unlimited thickness in accordance with D1.1 Structural Welding Code. May be taken twice for credit.</td>
</tr>
<tr>
<td>WELD 321</td>
<td>Shielded Metal Arc Welding (Stick Electrode Welding)</td>
<td>3</td>
<td>WELD 320 with a grade of “C” or better.</td>
<td>Course Transferable to CSU &lt;br&gt; Hours: 36 hours LEC; 54 hours LAB &lt;br&gt; This is a continuation of skills and content begun in Welding 320. Emphasis will also be placed on pipe welding procedures and welding techniques. May be taken twice for credit.</td>
</tr>
<tr>
<td>WELD 322</td>
<td>Advanced Pipe Welding in Shielded Metal Arc</td>
<td>3</td>
<td>WELD 321 with a grade of “C” or better.</td>
<td>Course Transferable to CSU &lt;br&gt; Hours: 36 hours LEC; 54 hours LAB &lt;br&gt; 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>
</tr>
<tr>
<td>WELD 323</td>
<td>Gas Tungsten Arc Welding (Pipe)</td>
<td>3</td>
<td>WELD 130 with a grade of “C” or better.</td>
<td>Course Transferable to CSU &lt;br&gt; Hours: 36 hours LEC; 54 hours LAB &lt;br&gt; This course covers the application of low-pressure and high-pressure critical piping systems such as in oil, gas, nuclear, and chemical industries.</td>
</tr>
</tbody>
</table>
WELD 335  Flux Core Arc Welding  3 Units  
Prerequisite: WELD 300 with a grade of “C” or better  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course provides training to develop semi-automatic welding  
skills on carbon steels. Topics include small and large diameter flux  
cored electrodes, with and without external shielding gas, in all posi-  
tions on fillet and groove welds. It also provides a thorough technical  
understanding of the flux core arc welding process, and arc welding  
safety.

WELD 342  Symbol Reading, Layout and Fabrication  3 Units  
Corequisite: WELD 300.  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course will cover blueprint and welding symbol interpretation.  
Metal layout, measurement, marking and layout tools used in con-  
struction; techniques of fabrication and assembly methods. Concent-  
ration on fundamentals of blueprint reading and topics as basic lines  
and views, dimensions, notes and specification, structural shapes,  
sections, detail and assembly.