2007-2009 Catalog Supplement
Published September, 2008
This catalog supplement is provided for your convenience to give you a brief review of the catalog course and program changes which took place since our 2007-2009 catalog was printed until the Spring 2008 semester ended in May, 2008.

This catalog supplement is broken down into the following categories:

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</thead>
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<td>45</td>
</tr>
</tbody>
</table>
Miscellaneous Modifications
## Auditing a Class

**Page 24**

**Application for Course Audit.**

COS offers a course audit for all courses. Students must be initially registered in classes to receive units and to receive a grade or credit for a class. Students enrolled in classes to receive credit for ten (10) or more semester credit units shall not be charged a fee to audit three or fewer semester units per semester. Audit students may not attend class until fees have been processed. Scholarship or Financial Aid Assistance cannot be applied to Course Audit Classes. Students are to contact the Area Dean for the Application for Course Audit form.

## Graduation and Transfer

**Page 56**

American Institutions: Remove, Item “1.” Completion of a one-year high school Civics, U.S. History and/or Government course with a minimum grade of “C” or better in both semesters.

**Pages 57,58**

**College of the Sequoias Associate Degree General Education Pattern**

The following courses have been added to the identified Areas of the Associate Degree General Education Pattern effective 2008-2009:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 1</td>
<td>Ag, Society &amp; Environment</td>
<td>D</td>
</tr>
<tr>
<td>AJ 45</td>
<td>Terrorism &amp; Freedom</td>
<td>D</td>
</tr>
<tr>
<td>CHEM 25</td>
<td>Environmental Chemistry</td>
<td>B</td>
</tr>
<tr>
<td>PHIL 6</td>
<td>Ethics of Living &amp; Dying</td>
<td>C</td>
</tr>
<tr>
<td>PSY 1</td>
<td>General Psychology</td>
<td>D</td>
</tr>
<tr>
<td>PSY 10</td>
<td>Human Sexuality</td>
<td>D</td>
</tr>
<tr>
<td>PSY 34</td>
<td>Abnormal Psychology</td>
<td>D &amp; E</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>D</td>
</tr>
<tr>
<td>SOC 26</td>
<td>Marriage &amp; Family Life</td>
<td>D</td>
</tr>
<tr>
<td>SSCI 36</td>
<td>Introduction to Aging</td>
<td>D</td>
</tr>
</tbody>
</table>

**Pages 61,62**

**California State University General Education Pattern**

The following courses have been added to the identified Areas of the California State University General Education Pattern effective 2007-2008:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 1</td>
<td>Ag, Society &amp; Environment</td>
<td>D7</td>
</tr>
<tr>
<td>AJ 45</td>
<td>Terrorism &amp; Freedom</td>
<td>D0</td>
</tr>
<tr>
<td>ARCH 70</td>
<td>Architecture History 1</td>
<td>C1</td>
</tr>
<tr>
<td>ARCH 71</td>
<td>Architecture History 2</td>
<td>C1</td>
</tr>
<tr>
<td>CHEM 25</td>
<td>Environmental Chemistry</td>
<td>B1</td>
</tr>
<tr>
<td>PHIL 6</td>
<td>Ethics of Living &amp; Dying</td>
<td>C2</td>
</tr>
<tr>
<td>PSY 1</td>
<td>General Psychology</td>
<td>D9</td>
</tr>
<tr>
<td>PSY 10</td>
<td>Human Sexuality</td>
<td>D9</td>
</tr>
<tr>
<td>PSY 34</td>
<td>Abnormal Psychology</td>
<td>D9 &amp; E</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>D0</td>
</tr>
<tr>
<td>SOC 26</td>
<td>Marriage &amp; Family Life</td>
<td>D0</td>
</tr>
<tr>
<td>SSCI 36</td>
<td>Introduction to Aging</td>
<td>D0</td>
</tr>
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</table>
Graduation and Transfer

Intersegmental General Education Transfer Curriculum

The following courses have been added to the identified Areas of the Intersegmental General Education Transfer Curriculum Pattern effective 2007-2008:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 1</td>
<td>Ag, Society &amp; Environment</td>
<td>4G</td>
</tr>
<tr>
<td>AJ 45</td>
<td>Terrorism &amp; Freedom</td>
<td>4J</td>
</tr>
<tr>
<td>ARCH 70</td>
<td>Architecture History 1</td>
<td>3A</td>
</tr>
<tr>
<td>ARCH 71</td>
<td>Architecture History 2</td>
<td>3A</td>
</tr>
<tr>
<td>CHEM 25</td>
<td>Environmental Chemistry</td>
<td>5A</td>
</tr>
<tr>
<td>PHIL 6</td>
<td>Ethics of Living &amp; Dying</td>
<td>3B</td>
</tr>
<tr>
<td>SSCI 36</td>
<td>Introduction to Aging</td>
<td>4J</td>
</tr>
</tbody>
</table>
Certificate and Degree Programs

Deleted Certificates and Degree Programs
Automotive Chassis Technology ........................................... 11
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Automotive Power Train Systems Technology ....................... 13
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Bookkeeping .................................................................... 15
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ESL Beginning Level .......................................................... 21
ESL Intermediate Level ..................................................... 22
ESL Advanced Level ........................................................ 23

Reinstated Certificate and Degree Programs
Computer Applications ...................................................... 16
Computer & Information Systems ....................................... 18
### Agriculture Transportation  
*(New)*

**A.S. Degree:** Not available  
**Certificate:** 16 units with a minimum of a “C” grade in all courses.

**ACHIEVEMENT CERTIFICATE**

Certificate is comprised of one, 16 unit course designed to assist students in preparation for taking their DMV Commercial Driving test for a Class A license. The focus is on high demand jobs in agriculture commodity.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Core Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGTC 211</td>
<td>Agriculture Transportation</td>
<td>16</td>
</tr>
</tbody>
</table>

**Total Minimum Units Required:** 16
## Architecture
*(Modified, Page 95)*

### A.S. DEGREE, ACHIEVEMENT AND SKILL CERTIFICATES

**Associate of Science Degree:** Architecture courses (50 units) with a minimum “C” grade in all courses plus General Education (18 units) and graduation requirements for a total of 68 units.

**Skill Certificate:** The Architecture Program also offers four Skill Certificates. A minimum “C” grade is required in all courses. The Skill Certificates are as follows: Architectural Drafting (16 units); Architectural Design (16 units); Architectural Visual Communication (12 units); and Architectural History (6 units).

**Transfer Students:** Transfer preparation varies from university to university. Meet with a COS counselor to review requirements.

**Associate of Science Degree**
The Associate of Science Degree in Architecture provides the basis for further study and employment in all aspects of environmental design, and enables students to transfer with credit in their major to university programs of architecture, interior design, planning, landscape architecture, product design, and civil engineering. It also provides the skills necessary for immediate employment in a technical capacity in architecture and allied professions.

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 10**</td>
<td>Architectural Design 1</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 20**</td>
<td>Visual Communication 1</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 70**</td>
<td>Architecture History 1</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 160</td>
<td>Construction Materials and Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 11</td>
<td>Architectural Design 2</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 21**</td>
<td>Visual Communication 2</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 71**</td>
<td>Architecture History 2</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 120**</td>
<td>Freehand Drawing</td>
<td>3</td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 112</td>
<td>Architect Digital Design 1</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 162</td>
<td>Conceptual Structural Analysis</td>
<td>3</td>
</tr>
<tr>
<td>DRFT 114</td>
<td>Introduction to CAD</td>
<td>3</td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 113</td>
<td>Architect Digital Design 2</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 161AD</td>
<td>Architectural Detailing (1st Sem)</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 163</td>
<td>Construction Documents</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 121AC**</td>
<td>Perspective Alternatives (1st Sem)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Minimum Units Required for AS:** **50 Units**

**ARCH 10, 20, 21, 70, 71, 120 and 121AC can be used for General Education.**
Achievement Certificate: Architecture courses (38 Units) with a minimum “C” grade in all courses.

Achievement Certificate
The Achievement Certificate in Architecture provides the knowledge, and skill necessary for successful employment as a draftsperson/CAD technician in architectural or engineering firms, or in related construction fields. Architecture integrates social, cultural, technological, and aesthetic issues. Introductory courses in the field are appropriate for the general education of students of any major.

Note: The Mechanical Drafting Achievement Certificate is offered through the Drafting Technology Department.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 10</td>
<td>Architectural Design 1</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 20</td>
<td>Visual Communication 1</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 112</td>
<td>Architect Digital Design 1</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 160</td>
<td>Construction Materials and Methods</td>
<td>3</td>
</tr>
<tr>
<td>DRFT 114</td>
<td>Introduction to CAD</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 11</td>
<td>Architectural Design 2</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 21</td>
<td>Visual Communication 2</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 113</td>
<td>Architect Digital Design 2</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 161AD</td>
<td>Architectural Detailing</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 162</td>
<td>Conceptual Structural Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 163</td>
<td>Construction Documents</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minimum Units Required for Achievement Certificate ........................................ 38 Units
Certificate and Degree Programs

Automotive Chassis Technology

*(Deleted, Page 100)*

**A.A. Degree:** Degree not available.

**Certificate:** 20 units in courses listed below with a minimum of a “C” grade in all classes.

**Transfer Students:** Transfer preparation varies from university to university. Meet with a COS counselor to review requirements.

**ACHIEVEMENT CERTIFICATE**

This program offers pre-employment vocational training and primary skills for certification for the student desiring full-time employment as a technician at an exhaust, brake, tire and wheel, alignment and suspension repair facility. Completion of this certificate also provides the students the knowledge and skills necessary to obtain the ASE Underbody (X1) certification.

**NOTE:** Required and Support courses may be substituted with the approval of the Division Chair.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 130</td>
<td>Introduction to Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 134</td>
<td>Automotive Suspension/Steering System</td>
<td>4</td>
</tr>
<tr>
<td>AUTO 135</td>
<td>Automotive Brake Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTO 136</td>
<td>Automotive Electrical Systems</td>
<td>5</td>
</tr>
<tr>
<td>WELD 161</td>
<td>Oxyacetylene Welding</td>
<td>4</td>
</tr>
</tbody>
</table>

Minimum Core Course Units: 20

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 254</td>
<td>Automotive Information Systems</td>
<td>2</td>
</tr>
</tbody>
</table>

Minimum Support Course Units: 0

Total Minimum Units Required: 20
Certificate and Degree Programs

Automotive Engine Performance

(Delated, Page 103)

A.S. Degree: Degree not available.
Certificate: 22 units in courses listed below with a minimum of a “C” grade.

**SKILL CERTIFICATE**

This program offers pre-employment vocational training and primary skills for certification for the student desiring full-time employment as an Engine Performance Specialist Technician. All classes are designed to meet national certification and training standards for ASE testing and certification. It is expected that the student will develop job entry knowledge and skills necessary for the proper maintenance, service and repair of engine and power train control systems. A student may complete a certificate in one year by following the prescribed course of study.

**NOTE:** Required and support courses may be substituted with the approval of the Division Chair.

<table>
<thead>
<tr>
<th><strong>Course Numbers</strong></th>
<th><strong>Core Courses</strong></th>
<th><strong>Units</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 130</td>
<td>Introduction to Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 136</td>
<td>Automotive Electrical Systems</td>
<td>5</td>
</tr>
<tr>
<td>AUTO 138</td>
<td>Automotive Engine Performance</td>
<td>6</td>
</tr>
<tr>
<td>AUTO 142</td>
<td>Automotive Fuel and Emissions</td>
<td>4</td>
</tr>
<tr>
<td>AUTO 143</td>
<td>Advanced Automotive Computer Control Systems</td>
<td>4</td>
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</table>

**Minimum Core Course Units:** 22

<table>
<thead>
<tr>
<th><strong>Course Numbers</strong></th>
<th><strong>Support Courses</strong></th>
<th><strong>Units</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 253AD</td>
<td>BAR Alternative Training</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 254</td>
<td>Automotive Information Systems</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 263AD</td>
<td>Basic Clean Air Car Course</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 264AD</td>
<td>Advanced Clean Air Car Course</td>
<td>2.5</td>
</tr>
<tr>
<td>AUTO 265</td>
<td>Alternate Fuel Vehicles</td>
<td>2</td>
</tr>
</tbody>
</table>

**Minimum Support Courses Units:** 0

**Total Units required:** 22
A.S. Degree: Degree not available.
Certificate: 18 units in courses listed below with a minimum of a “C” grade.

SKILL CERTIFICATE

This program offers pre-employment vocational training and primary skills for certification for the student desiring full-time employment and repair in the area of power train systems which include automatic and manual transmissions and clutch repair facilities. All classes are designed to meet national certification and training standards for ASE testing and certification.

NOTE: Required and support courses may be substituted with the approval of the Division Chair.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 130</td>
<td>Introduction to Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 132</td>
<td>Automotive Automatic Transmissions</td>
<td>4</td>
</tr>
<tr>
<td>AUTO 133</td>
<td>Automotive Power Train Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTO 136</td>
<td>Automotive Electrical Systems</td>
<td>5</td>
</tr>
<tr>
<td>AUTO 254</td>
<td>Automotive Information Systems</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Minimum Units Required: 18
Banking

(Deleted, Page 107)

A.S. Degree: Degree not available.
Certificate: 26 units in courses listed below with a minimum of a “C” grade in all classes.
Transfer Students: Transfer preparation varies from university to university. Meet with a COS counselor to review requirements.

**ACHIEVEMENT CERTIFICATE**

This certificate is designed to equip the student with knowledge and skills needed for an entry-level position in the banking industry.

**NOTE:** Required and support courses may be substituted with the approval of the Division Chair.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 82</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 184</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 195</td>
<td>Ethics in Business and Industry</td>
<td>3</td>
</tr>
<tr>
<td>BUS 240</td>
<td>Banking Skills</td>
<td>2</td>
</tr>
<tr>
<td>BUS 268</td>
<td>Electronic Calculating</td>
<td>2</td>
</tr>
<tr>
<td>BUS 295</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5</td>
<td>Computer Concepts (4)</td>
<td>4</td>
</tr>
<tr>
<td>or COMP 130</td>
<td>Introduction to Personal Computers (4)</td>
<td>4</td>
</tr>
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</table>

**Minimum Core Course Units:** 20

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Support Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 100</td>
<td>Career Strategies</td>
<td>3</td>
</tr>
<tr>
<td>BUS 112/COMM 112</td>
<td>Public Speaking for Business</td>
<td>4</td>
</tr>
<tr>
<td>BUS 174</td>
<td>Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>BUS 188</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Supervision, Management/1st Line Supervisor</td>
<td>3</td>
</tr>
<tr>
<td>BUS 293</td>
<td>Business English</td>
<td>4</td>
</tr>
<tr>
<td>Bus 297</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>WEXP 1931-1961</td>
<td>Business Internship/Work Experience</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**Minimum Support Course Units:** 6

**Total Minimum Units Required:** 26
Certificate and Degree Programs

Bookkeeping

*(Deleted, Page 109)*

**A.S. Degree:** Degree not available.
**Certificate:** 18 units in courses listed below with a minimum of a “C” grade in all classes.
**Transfer Students:** Transfer preparation varies from university to university. Meet with a COS counselor to review requirements.

**ACHIEVEMENT CERTIFICATE**

Students completing the Bookkeeping Certificate will have the necessary skills to perform the basic bookkeeping requirements of the general business office.

**NOTE:** Required and support courses may be substituted with the approval of the Division Chair.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1</td>
<td>Principles of Accounting (4)</td>
<td>4-5</td>
</tr>
<tr>
<td>ACCT 101</td>
<td>Essentials of Accounting (5)</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 210/COMP 210</td>
<td>Computer Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS 20</td>
<td>Business Statistics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 119</td>
<td>Quantitative Methods (3)</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 295</td>
<td>Business Mathematics (3)</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Career Strategies</td>
<td>3</td>
</tr>
<tr>
<td>BUS 268</td>
<td>Electronic Calculating</td>
<td>2</td>
</tr>
<tr>
<td>COMP 138</td>
<td>Spreadsheet Design for Business (3)</td>
<td>3</td>
</tr>
<tr>
<td>or COMP 223AD</td>
<td>Beginning Excel (1.5)</td>
<td>3</td>
</tr>
<tr>
<td>and COMP 224AD</td>
<td>Advanced Excel (1.5)</td>
<td>3</td>
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</table>

**Minimum Core Course Units:** 18

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Support Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 185</td>
<td>Ethics in Business and Industry</td>
<td>3</td>
</tr>
<tr>
<td>BUS 188</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minimum Support Course Units:** 0

**Total Minimum Units Required:** 18
**Certificate and Degree Programs**

**Computer Applications**  
*(Modified and Reinstated)*

**Note:** This Certificate was modified in error in the 2007-2009 College of the Sequoias catalog. It appears correct in the College of the Sequoias Program Inventory with the State Chancellor’s Office.

**Degree:** Degree not available  
**Certificate:** 37 units in courses listed below with a minimum of a “C” grade in all courses.

**ACHIEVEMENT CERTIFICATE**

Students with a Computer Applications certificate will be prepared for entry-level positions requiring computer applications skills. Students must earn a Word Processing Certificate prior to earning the Computer Applications certificate.

**Note:** Required and support courses may be substituted with the approval of the division chair.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Processing Certificate</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>BUS 112/SPCH 1112</td>
<td>Public Speaking for Business (4)</td>
<td>4</td>
</tr>
<tr>
<td>COMP 133</td>
<td>Database Processing</td>
<td>3</td>
</tr>
<tr>
<td>COMP 135</td>
<td>Desktop Publishing for Business</td>
<td>4</td>
</tr>
<tr>
<td>COMP 138</td>
<td>Spreadsheet Design for Business</td>
<td>3</td>
</tr>
<tr>
<td>COMP 229</td>
<td>Web Page Design and Development</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minimum Core Units** 34

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Support Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose three (3) additional units from the list below to complete this certificate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 20</td>
<td>Business Statistics (3)</td>
<td></td>
</tr>
<tr>
<td>or BUS 119</td>
<td>Quantitative Methods (3)</td>
<td></td>
</tr>
<tr>
<td>or BUS 295</td>
<td>Business Mathematics (3)</td>
<td>3</td>
</tr>
<tr>
<td>BUS 188</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 82</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Career Strategies</td>
<td>3</td>
</tr>
<tr>
<td>BUS 185</td>
<td>Ethics in Business and Industry</td>
<td>3</td>
</tr>
<tr>
<td>BUS 293</td>
<td>Business English</td>
<td>4</td>
</tr>
<tr>
<td>COMP 210/ACCT 210</td>
<td>Computer Accounting</td>
<td>3</td>
</tr>
<tr>
<td>COMP 227AD</td>
<td>Presentation Software for Business</td>
<td>1.5</td>
</tr>
<tr>
<td>IT 110</td>
<td>PC Trouble Shooting/Repair</td>
<td>3</td>
</tr>
<tr>
<td>WEXP 193 I-196 I</td>
<td>Business Internship/Work Experience</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**Minimum Support Courses** 3

**Total Minimum Units Required** 37
Certificate and Degree Programs

**Computer Applications/Information Systems**  
*(Deleted, Page 121)*

**Degree:** Degree not available.  
**Certificate:** 37 units in courses listed below with a minimum of a "C" grade in all courses.

### ACHIEVEMENT CERTIFICATE

Students with a Computer Applications/Information Systems Certificate will be prepared for entry-level positions requiring computer applications skills. Students must earn a Word Processing Certificate prior to earning the Computer Applications/Information Systems Certificate.

**NOTE:** Required and Support courses may be substituted with the approval of the Division Chair.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 112/SPCH 112</td>
<td>Public Speaking for Business (4)</td>
<td>4</td>
</tr>
<tr>
<td>BUS 188</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
<tr>
<td>COMP 133</td>
<td>Database Processing</td>
<td>3</td>
</tr>
<tr>
<td>COMP 135</td>
<td>Desktop Publishing for Business</td>
<td>4</td>
</tr>
<tr>
<td>COMP 138</td>
<td>Spreadsheet Design for Business</td>
<td>3</td>
</tr>
<tr>
<td>COMP 229</td>
<td>Web Page Design and Development</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minimum Core Course Units:** 37

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Support Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 20</td>
<td>Business Statistics (3)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>BUS 119</td>
<td>Quantitative Methods (3)</td>
</tr>
<tr>
<td>or</td>
<td>BUS 295</td>
<td>Business Mathematics (3)</td>
</tr>
<tr>
<td>BUS 82</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Career Strategies</td>
<td>3</td>
</tr>
<tr>
<td>BUS 185</td>
<td>Ethics in Business and Industry</td>
<td>3</td>
</tr>
<tr>
<td>COMP 210/ACCT 210</td>
<td>Computer Accounting</td>
<td>3</td>
</tr>
<tr>
<td>COMP 227AD</td>
<td>Presentation Software for Business</td>
<td>1.5</td>
</tr>
<tr>
<td>IT 110</td>
<td>PC Trouble Shooting/Repair</td>
<td>3</td>
</tr>
<tr>
<td>WEXP 193 I-196 I</td>
<td>Business Internship/Work Experience</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**Minimum Support Course Units:** 0

**Total Minimum Units Required:** 37
Certificate and Degree Programs

Computer & Information Systems

*(Reinstated)*

**Degree:** Certificate courses with a minimum “C” grade plus General Education and graduation requirements for a total of 60 units.

**Certificate:** 30 units in courses listed below with a minimum of a “C” grade in all courses.

**Transfer Students:** Transfer preparation varies from university to university. Meet with a COS counselor to review requirements.

**ACHIEVEMENT CERTIFICATE**

Students with a Computer and Information Systems certificate or degree will be prepared for entry-level computer positions such as data entry, technical support, and office positions involving computer skills.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 82</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5</td>
<td>Computer Concepts (4)</td>
<td>4</td>
</tr>
<tr>
<td>or COMP 130</td>
<td>Introduction to Personal Computers (4)</td>
<td>4</td>
</tr>
<tr>
<td>COMP 6</td>
<td>Programming Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>COMP 8</td>
<td>Programming Concepts (Java)</td>
<td>4</td>
</tr>
<tr>
<td>COMP 133</td>
<td>Database Processing</td>
<td>3</td>
</tr>
<tr>
<td>COMP 136</td>
<td>Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>COMP 138</td>
<td>Spreadsheet Design for Business (3)</td>
<td>3</td>
</tr>
<tr>
<td>or COMP 223AD</td>
<td>Beginning Excel (1.5)</td>
<td>3</td>
</tr>
<tr>
<td>COMP 224AD</td>
<td>Advanced Excel (1.5)</td>
<td>3</td>
</tr>
<tr>
<td>COMP 140</td>
<td>Windows</td>
<td>3</td>
</tr>
<tr>
<td>IT 110</td>
<td>PC Troubleshooting/Repair</td>
<td>3</td>
</tr>
<tr>
<td><strong>Minimum Core Units</strong></td>
<td></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

Select at least 1 additional unit from this list to complete the certificate.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Essentials of Accounting (5)</td>
<td>4 or 5</td>
</tr>
<tr>
<td>or ACCT 001</td>
<td>Financial Accounting (4)</td>
<td>4</td>
</tr>
<tr>
<td>BUS 112/SPCH 112</td>
<td>Public Speaking for Business</td>
<td>4</td>
</tr>
<tr>
<td>BUS 155</td>
<td>E-Commerce</td>
<td>3</td>
</tr>
<tr>
<td>BUS 184</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 185</td>
<td>Ethics in Business and Industry</td>
<td>3</td>
</tr>
<tr>
<td>BUS 188</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
<tr>
<td>COMP 9</td>
<td>Advanced Application Software</td>
<td>3</td>
</tr>
<tr>
<td>COMP 135</td>
<td>Desktop Publishing for Business</td>
<td>4</td>
</tr>
<tr>
<td>COMP 210/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 210</td>
<td>Computer Accounting</td>
<td>3</td>
</tr>
<tr>
<td>COMP 227</td>
<td>Presentation Software for Business</td>
<td>1.5</td>
</tr>
<tr>
<td>COMP 228</td>
<td>Introduction to the World Wide Web</td>
<td>1</td>
</tr>
<tr>
<td>COMP 229</td>
<td>Web Page Design &amp; Development</td>
<td>3</td>
</tr>
<tr>
<td>COMP 230</td>
<td>Java Script/XML</td>
<td>3</td>
</tr>
<tr>
<td>IT 120</td>
<td>Computer Networking Fundamentals</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minimum Support Course Units**                  | **1** |

**Total Minimum Units Required**                   | **30** |
Certificate and Degree Programs

Educational Paraprofessional

*(Inactive, Page 133)*

**A.A. Degree:** Degree Not Available
**Certificate:** 47 units listed below with a minimum of a “C” grade in all courses.

**ACHIEVEMENT CERTIFICATE**

The Educational Paraprofessional Certificate Program is designed to prepare individuals to work in K-12 educational facilities as paraprofessional in instructional programs. Many people in this occupation work directly in the classroom assisting the teacher, while others work at schools in libraries, instructional media/ resource centers or in special programs. Support courses are taken to complete the unit certificate requirements and can be chosen to support the area in which the paraprofessional desires to work.

**Note:** Required and Support courses may be substituted with the approval of the Division Chair.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 39/PSY 39</td>
<td>Child Development – DS 1</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 152</td>
<td>School Age Child Care – DS 5</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 160</td>
<td>Literacy and Language in Child</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 136</td>
<td>Children’s Literature – DS 3</td>
<td>3</td>
</tr>
<tr>
<td>MATH 360</td>
<td>Pre-Algebra (Or higher level math course)</td>
<td>4</td>
</tr>
<tr>
<td>IS 241</td>
<td>Math Learning</td>
<td>2</td>
</tr>
<tr>
<td>CHLD 134</td>
<td>Child Abuse Prevention</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 138</td>
<td>Science Experience in School-Age Education</td>
<td>1</td>
</tr>
<tr>
<td>CHLD 148</td>
<td>Child Health and Safety – DS 7</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 158</td>
<td>Cultural Diversity in ECE</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 163 AD</td>
<td>After School Programs</td>
<td>4</td>
</tr>
<tr>
<td>COMP 133</td>
<td>Data Base Processing</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 101</td>
<td>Library Research Strategies</td>
<td>1</td>
</tr>
<tr>
<td>LIBR 201</td>
<td>Introduction to Library Services</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 203</td>
<td>Library Technical Services</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 204</td>
<td>School / Children’s Services</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Core Course Units:** 42-47

Select additional units from this list to complete the total units required.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Support Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 134</td>
<td>Child Abuse Prevention</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 138</td>
<td>Science Experience in School-Age Education</td>
<td>1</td>
</tr>
<tr>
<td>CHLD 148</td>
<td>Child Health and Safety – DS 7</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 158</td>
<td>Cultural Diversity in ECE</td>
<td>3</td>
</tr>
<tr>
<td>CHLD 163 AD</td>
<td>After School Programs</td>
<td>4</td>
</tr>
<tr>
<td>COMP 133</td>
<td>Data Base Processing</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 101</td>
<td>Library Research Strategies</td>
<td>1</td>
</tr>
<tr>
<td>LIBR 201</td>
<td>Introduction to Library Services</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 203</td>
<td>Library Technical Services</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 204</td>
<td>School / Children’s Services</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minimum Support Course Units:** 0-5
**Total Minimum Units Required:** 47
Engineering
(Modified, Page 137)

A.S. Degree: 38 units with a minimum “C” grade plus General Education and graduation requirements for a total of 60 units.

Certificate: Certificate not available.

Transfer Students: Transfer preparation varies from university to university. Meet with a COS counselor to review requirements.

ASSOCIATE OF SCIENCE DEGREE

Students receiving the associate degree in engineering usually transfer to four-year institutions to complete their bachelor’s degree in engineering. Employment opportunities will depend on the area of specialization and the economic state of the various industries hiring those specializations. For this reason students are urged to gain as broad an exposure to the field as possible.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>ENGR 1</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 2</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 3</td>
<td>Materials</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5</td>
<td>Physics for Engineers 1</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 6</td>
<td>Physics for Engineers 3</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 7</td>
<td>Physics for Engineers 3</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 110</td>
<td>Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>MATH 75</td>
<td>Calculus 1</td>
<td>5</td>
</tr>
<tr>
<td>MATH 76</td>
<td>Calculus 2</td>
<td>5</td>
</tr>
</tbody>
</table>

Minimum Core Units --------------------------------------------------------------- 38

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Support Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 77</td>
<td>Calculus 3</td>
<td>3</td>
</tr>
<tr>
<td>MATH 80</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 81</td>
<td>Differential Equations</td>
<td>5</td>
</tr>
</tbody>
</table>

Minimum Support Courses ---------------------------------------------------------- 0

Total Minimum Units Required -------------------------------------------------------- 38
Coursework in English as a Second Language is intended for students whose first language is other than English. The program differs from that offered in adult school in its rigor and focus. Beginning courses are designed for students with minimal skills in one or more of the reading, writing, speaking and listening areas. The program seeks to support and encourage students as they take coursework elsewhere in the college curriculum and thus many students take coursework simultaneously in ESL and in other disciplines.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 402</td>
<td>Beginning Writing/Grammar 1</td>
<td>108</td>
</tr>
<tr>
<td>ESL 403</td>
<td>Beginning Reading/Vocabulary 1</td>
<td>54</td>
</tr>
<tr>
<td>ESL 410</td>
<td>Beginning Writing/Grammar 2</td>
<td>108</td>
</tr>
<tr>
<td>ESL 411</td>
<td>Beginning Reading/Vocabulary 2</td>
<td>54</td>
</tr>
<tr>
<td>ESL 412AB</td>
<td>Beginning Pronunciation/Speaking</td>
<td>36</td>
</tr>
</tbody>
</table>

Total hours Required for Certificate: 360
Coursework in English as a Second Language is intended for students whose first language is other than English. The program differs from that offered in adult school in its rigor and focus. This intermediate certificate is designed for students with minimal skills in one or more of the reading, writing, speaking and listening areas. The program seeks to support and encourage students as they take coursework elsewhere in the college curriculum, and thus many students take coursework simultaneously in ESL and in other disciplines.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 420</td>
<td>Intermediate Writing/Grammar 3</td>
<td>108</td>
</tr>
<tr>
<td>ESL 421</td>
<td>Intermediate Reading/Vocabulary 3</td>
<td>54</td>
</tr>
<tr>
<td>ESL 430</td>
<td>Intermediate Writing/Grammar 4</td>
<td>108</td>
</tr>
<tr>
<td>ESL 431</td>
<td>Intermediate Reading/Vocabulary 4</td>
<td>54</td>
</tr>
<tr>
<td>ESL 432AB</td>
<td>Intermediate Pronunciation/Speaking</td>
<td>36</td>
</tr>
</tbody>
</table>

**Total hours Required for Certificate** 360
Coursework in English as a Second Language is intended for students whose first language is other than English. The program differs from that offered in adult school in its rigor and focus. This advanced course is equivalent to the developmental composition courses in the English department but stress improvement of the skills with an emphasis on the special needs of the non-native speaker.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 440</td>
<td>Advanced Writing/Grammar 5</td>
<td>108</td>
</tr>
<tr>
<td>ESL 441</td>
<td>Advanced Reading/Vocabulary 5</td>
<td>54</td>
</tr>
<tr>
<td>ESL 450</td>
<td>Advanced Writing/Grammar 6</td>
<td>54</td>
</tr>
<tr>
<td>ESL 451</td>
<td>Advanced Reading/Vocabulary 6</td>
<td>54</td>
</tr>
<tr>
<td>ESL 452AB</td>
<td>Advanced Pronunciation/Speaking</td>
<td>72</td>
</tr>
</tbody>
</table>

Total hours Required for Certificate 342
A.A. Degree: 18 Units minimum in General Education requirements with a “C” grade or better and a minimum of 18 units with a “C” grade or better from one of the areas of emphasis.

Certificate: Not available.

LIBERAL ARTS ASSOCIATE OF ARTS DEGREE
WITH AREAS OF EMPHASIS

The Liberal Arts Associate of Arts Degree with Areas of Emphasis provides an opportunity for students not intending to transfer to a 4-year university to earn an Associate of Arts Degree in a broad area of study. This degree is designed to prepare students for life in the global community by developing a core of knowledge, skills, and attitudes essential for personal and professional success.

DEGREE REQUIREMENTS:

1. GENERAL EDUCATION: Complete Associate Degree General Education, subject, and competency graduation requirements (minimum 18 units).

2. AREA OF EMPHASIS: Complete a minimum of 18 units with a “C” grade or better from one Area of Emphasis. Courses used to fulfill the general education requirements listed above may be counted as part of the 18 units necessary for an Area of Emphasis.

A. ARTS & HUMANITIES:

These courses emphasize the study of cultural activities and artistic expressions of human beings. Students will develop an awareness of the ways in which people throughout the ages and in different cultures have responded to themselves and the world around them in artistic and cultural creation. Students will also develop aesthetic understanding and an ability to make value judgments.

Students should complete a minimum of 18 units from the following Arts and Humanities courses:

ANTH #4, #5; ART 1, 2, 3, #4, #5, #6, #7, 8, 9, 10AD, 11AD, 12AD, 13AD, 15, 16AC, 17AD, 18AD, 23AD, 25AD, 32AD, 101AD, 105AC, 11AD, 119AD, #121AC, 124AD, 126AD, 127, 128AD, 129AD, 130AC; CFS #6, #7; CINA 31, 32; DRAM 1, 2, 3, 4, 5, 6, 8, 9, 11AD, 12AB, 13AB, 14AB, 15AB, 16AB, 17AB, 18AB, 19AD, 20AD, 21AD, 22AD, 30AB, 40AB, 101AD, 102AB, 120AD, DRAM 180AD; MUS 1, 4, 5, 6, 7, 10, 11, 13, 20AD, 21AD, 22AD, 23AD, 30AD, 31AD, 32AD, 34AD, 35AD, 36AD, 40AD, 41AD, 50AD, 53AD, 54AD, 55AB, 56AB, 57AD, 60AD, 61AD, 62AD, 65AD, 66AD, 72AD, 73AD, 74AD, 75AD, 76AD, 90AD, 91AD, 93AD, 93AD, 94AD, 95AD, 97AD, 111AB, 114, 115, 124AD, 125AD, 126AD, 127, 133AD, 147AD, 174AD, 180, 181, 182, 183AD; OH 11; WELD #105AC

ASL 1,2,3,4, 110AD; AJ 123; ARCH 10, 20, 21, 70, 71, 120, 121AC, BUS #185; ENGL 4, 10, 14AB, 15, 16, 17, 18, 19, 25, 30, 31, 44, 45, 46; ETHN 1, 2, 3, 4; FREN 1, 2, 3, 4, ITEC #185; INTD 121, 124; LING 10, 111; PHIL 1, 5, 12, 13, 14, 17, 20, 25, 106, 115; PORT 1, 2; SPAN 1, 2, 3, 4, 12, 22, 23, 24, 180

# ANTH 4 & 5 same as ART 4 & 5; CFS 6 & 7 same as ART 6 & 7; BUS 185 same as ITEC 185;
ART 105AC same as WELD 105AC
B. COMMUNICATION STUDIES:

These courses emphasize the principles and applications of language toward logical thought, clear and precise expression and critical evaluation of communication in whatever symbol system used.

Students should complete a minimum of 18 units from the following Communication Studies courses:

AJ #25; AG 201; AGMT 102; BUS 20, #25, #112, 119, 184, 295; COMM 1, 4, 5, 7, 8, #112; COMP 5, 6, 7; ENGL 1, 2, 251; GOVT #7, #25; ITEC 201; JOUR #7; MATH 10, 11, 21, 45, 70, 75, 76, 77, 80, 81, 154, 200, 205, 230, 235; PHIL 20, 25, 28;

# AJ 25 same as BUS 25 & GOVT 25; BUS 112 same as COMM 112; GOVT 7 same as JOUR 7

C. HEALTH AND PHYSICAL EDUCATION:

The health and nutrition courses emphasize practical and theoretical knowledge necessary for maintenance of physical and mental health. The physical education and intercollegiate athletics courses provide students the opportunity to develop active and healthy life styles.

Students should complete a minimum of 18 units as follows:

1. A minimum of 9 units from the following health and wellness courses:
   HW 1, 3, 7, #60, 104, 119; NUTR 18, 119; SMED 40, #60

2. A minimum of 9 units from the following physical education courses:
   PE 1AD, 2AD, 3AD, 4AD, 5AB, 6AD, 9AD, 10AD, 11AD, 12AD, 14AD, 15AD, 16AD, 17, 18AB, 19AB, 21AD, 22AD, 23AD, 24AD, 25AD, 26AD, 27, 28, 29AD, 30AB, 31AB, 32AB, 33AD, 34AB, 35AB, 36, 37, 52AD, 55AD, 57AD, 63AD, 64AD, 66AD, 67AD, 68AD, 70AD, 71AD, 72AD, 73AD, 74AD, 75AD, 76AD, 80AD, 81AD, 83AD, 89AD, 93AD, 119, 142AD, 178AD, 179AD, 180AD, 183AD, 188, 243AD; IA 1AD, 2AD, 3AD, 6AD, 7AD, 8AD, 10AD, 11AD, 12AD, 15AD, 16AD, 23AD, 24AD, 29AD, 30AD, 31AD

# HW 60 same as SMED 60

D. NATURAL SCIENCE:

These courses emphasize experimental methodology, testing hypotheses, and the power of systematic questioning. Students will develop a comprehension of the basic concepts of physical and biological sciences, and a sophisticated understanding of science as a human endeavor, including the limitations as well as the power of scientific inquiry.

Students should complete a minimum of 18 units from the following Natural Science courses:

AG 4; ANTH 11; ASTR 10; BIOL 1, 2, 20, 21, 22, 25, 30, 31, 40, 60; CHEM 1, 2, 20, 21, 30; GEOG 1, 1L; GEOL 1, 4, 12; MET 1; NSCI 131, 132; NUTR 18; OH 101; PHYS 5, 6, 7, 20, 21; PLSI 1; PSCI 20
Certificate and Degree Programs

Liberal Arts with an Area of Emphasis -AA Degree
(Modified, Page 166)

These courses allow students to gain a basic knowledge of the cultural and social organizations in which they exist as well as the behavior and social organizations of other human societies. Students will develop an understanding of the perspectives and methods of the social and behavioral sciences.

Students should complete a minimum of 18 units from the following Social and Behavioral courses:

AGMT 1; AJ 11, #25, 114; ANTH 10, 12; BUS #25, 188; CFS 80, #26; CHLD #39, 42, 158, 160; COMM 9; CFS #136; ETHN 1, 2, 3, 4, 5; ECON 40, 50; FASH 179; GEOG 2, 3; GOVT 5, #7, #25; HIST 4, 5, 17, 18, 23, 24, 25; JOUR #7, 20; NUTR 20; PSYCH 1, 5, 10, 34, #39; SOC 1, 2, 23, 43, #26; SSCI 10, #136, 276

# AJ 25 same as BUS 25 & GOVT 25; CFS 26 same as SOC 26; CHLD 39 same as PSY 39; GOVT 7 same as JOUR 7; CFS 136 same as SSCI 136

3. **ELECTIVE UNITS:** Complete the balance of 60 degree applicable elective units with courses numbered 1-299.
Degree: Degree not available.
Certificate: 17 units in courses listed below with a minimum of a “C” grade in all courses.

**SKILL CERTIFICATE**

Today, more than ever, libraries provide a variety of resources to help people of all ages read, learn and connect with resources that are needed for school, work or personal fulfillment. Libraries have become the navigator for exploration in the world of information. Electronic catalogs, on-line databases, and networks provide almost unlimited access to this world.

The COS Library Technician Certificate leads to employment in school, college or public libraries as library technicians, library media clerks, or library media specialists.

**NOTE:** Required and support courses may be substituted with the approval of the Division Chair.

### Course Numbers

#### Support Courses

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Support Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIBR 201</td>
<td>Introduction to Library Services</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 203</td>
<td>Library Technical Services</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIBR 202</td>
<td>Library Collection Development</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 204</td>
<td>School / Children’s Services</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIBR 205</td>
<td>Library Media Services</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 206</td>
<td>Public Service / Reference</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minimum Core Course Units:** 15

Select a minimum of 2 units from the following courses.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Support Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIBR 101</td>
<td>Library Research Strategies</td>
<td>1</td>
</tr>
<tr>
<td>LIBR 102</td>
<td>Internet Information Resources</td>
<td>1</td>
</tr>
<tr>
<td>LIBR 103</td>
<td>Evaluating Information Sources</td>
<td>1</td>
</tr>
<tr>
<td>WEXP 193 R – 195 R</td>
<td>Library Work Experience (first, second, and third semesters)</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Minimum Support Course Units:** 2
**Total Minimum Units Required:** 17
Transfer Studies with an Area of Emphasis - AA Degree
(Modified, Page 200)

A.A. Degree: See below.
Certificate: Not available.

The Transfer Studies Associate of Arts Degree with Areas of Emphasis is designed for students planning to transfer to a university. With proper planning students may complete necessary transfer preparation courses and simultaneously complete the Transfer Studies Associate of Arts Degree with Areas of Emphasis. This degree includes seven Areas of Emphasis to provide flexibility in program planning.

The Transfer Studies Associate of Arts Degree with Areas of Emphasis is especially designed for students who want to participate in the Central Valley Higher Education Consortium (CVHEC) Guaranteed Transfer Program. Participating universities include: UC Merced, University of the Pacific, Fresno Pacific, CSU Bakersfield, CSU Fresno, and CSU Stanislaus (see counselor or visit www.CollegeNext.org for details). This degree is also appropriate for students planning to transfer to other California State University campuses, other University of California campuses, and many independent universities.

Successful transfer and completion of a baccalaureate degree without taking unnecessary courses requires proper planning and students are encouraged to develop a transfer plan in consultation with a counselor and to refer to www.ASSIST.org for current articulation of courses required for their baccalaureate degree.

DEGREE REQUIREMENTS:

1. **GENERAL EDUCATION**: Complete one of the following General Education Patterns with a “C” grade or better in each course.

   A. California State University General Education Certification (CSU GE) for transfer to CSU (minimum 39 units)*
   B. Intersegmental General Education Transfer Curriculum Certification (IGETC) for transfer to CSU or UC (minimum 34 units)*
   C. COS Associate Degree General Education including, subject and competency graduation requirements (minimum 18 units). **

   *Completion of either CSU GE or IGETC Certification fulfills Associate Degree General Education, subject, and competency graduation requirements. These two options are appropriate for students who want to participate in the Central Valley Higher Education Consortium (CVHEC) Guaranteed Transfer Program.

   **This option is appropriate for Bachelor’s Degree majors that require extensive lower-division major preparation and completion of the CSU GE or IGETC is not recommended. This option is, however, not appropriate for students who want to participate in the Central Valley Higher Education Consortium (CVHEC) Guaranteed Transfer Program as it does not meet the program requirements.

2. **AREA OF EMPHASIS**: Complete a minimum of 18 units with a “C” grade or better from one Area of Emphasis. Choose an Area of Emphasis that is appropriate for your baccalaureate major (i.e., lower division major preparation and transfer general education courses should be used to meet this 18 unit requirement). Courses used to fulfill the general education requirements listed above may be counted as part of the 18 units necessary for an Area of Emphasis. Courses numbered 1-99 transfer to UC and courses numbered 1-199 transfer to CSU.
Transer Studies with an Area of Emphasis -AA Degree

(Modified, Page 200)

A. AGRICULTURE AND ENVIRONMENTAL SCIENCE:

These courses provide students the opportunity to gain practical and theoretical knowledge in specific disciplines within the field of agriculture. With proper course selection, students will acquire the discipline specific lower division skills and knowledge necessary for success in their chosen baccalaureate major.

This Area of Emphasis prepares students for baccalaureate majors including, but not limited to: Agricultural Business; Agricultural Education; Agricultural Science; Animal Science; Crop Science; Dairy Science; Environmental Horticulture Science; Forestry and Natural Resources; Fruit Sciences; Plant Science; and Viticulture.

Students should complete a minimum of 18 units from the following Agriculture and Environmental Science courses:

ACCT 1, 2, 101; AG 4, 105; AGMT 1, 102, 103, 104, 108AB; AGTC 103AC, 108, 106AB; ASCI 1, 2AB, 22, 103, 104, 107, 108AB, 110, 11, 112; BIOL 21, 22; BUS 20; CHEM 20, 21; DSCI 101, 102, 104, 105AD, 106AB, 108; MATH 21, 70, 75, 154; OH 2, 3, 101, 108, 109; PLSI 12, 103, 104, 113

B. ARTS AND HUMANITIES:

These courses encourage students to analyze and appreciate the works of philosophical, historical, literary, aesthetic and cultural importance. Students will develop intellect, imagination, sensibility and sensitivity, and be motivated to refine their affective as well as cognitive and physical faculties.

This Area of Emphasis prepares students for baccalaureate majors including, but not limited to: Art; English; Interior Design; Foreign Language; History; Linguistics; Music; Philosophy; and Theatre Arts.

Students should complete a minimum of 18 units from the following Arts and Humanities courses:

ANTH #4, #5; ART 1, 2, 3, #4, #5, #6, #7, 8; CFS #6, #7; CINA 31, 32; MUS 1, 4, 5, 6, 7, 10, 11, 13; DRAM 1, 2, 3, 6, 8, 9, ASL 1, 2, 3, 4; AJ 123; BUS 185; ENGL 4, 10, 15, 16, 17, 18, 19, 25, 30, 31, 44, 45, 46; ETHN 1, 2, 3, 4; FREN 1, 2, 3, 4; HIST 4, 5, 17, 18, 23, 25; LING 111; PHIL 1, 5, 12, 13, 14, 17; PORT 2; SPAN 1, 2, 3, 4, 12, 22, 23, 24

# ANTH 4 & 5 same as ART 4 & 5; CFS 6 & 7 same as ART 6 & 7

C. BUSINESS:

These courses provide students the opportunity to gain practical and theoretical knowledge in specific disciplines within the various fields of business. With proper course selection, students will acquire the discipline specific lower division skills and knowledge necessary for success in their chosen baccalaureate major.

This Area of Emphasis prepares students for baccalaureate majors including, but not limited to: Business Administration; Community and Regional Development; Construction Management; Agricultural Business; Public Administration; and Health Administration.
Transfer Studies with an Area of Emphasis - AA Degree

(Modified, Page 200)

Students should complete a minimum of 18 units as follows:

1. A minimum of 12 units from the following business courses:
   ACCT 1, 2, 101; BUS 18, 25, 82, 112, 185; COMP 5, 130, 140;
   CSCI 1, 2; ECON 40, 50; AGMT 1, 104, 108AB

2. A minimum of 3 units from the following mathematics courses:
   BUS 20, 119, MATH 21, 154, 70, 75, 76

D. COMMUNICATION STUDIES:

These courses emphasize the content as well as the form of communication and provide an understanding of the psychological basis and social significance of communication. Students will learn to read, listen, speak, and write effectively. Students will also acquire the ability to distinguish fact from judgment, and belief from knowledge, to use inductive and deductive processes, and to recognize common logical errors or fallacies of language and thought.

This Area of Emphasis prepares students for baccalaureate majors including, but not limited to: Speech and Communication.

Students should complete a minimum of 18 units from the following Communication Studies Preparation courses:

AJ #25; BUS #25, #112; ENGL 1, 2; GOVT #25; PHIL 20, 25, 28; COMM 1, 4, 5, 7, 8, #112

# AJ 25 same as BUS 25 & GOVT 25; BUS 112 same as COMM 112

E. ELEMENTARY TEACHING PREPARATION:

This area of emphasis is intended for students who plan to complete a baccalaureate degree and a California Multiple Subject Teaching Credential. Most students pursue this credential with the goal of becoming an elementary school or special education teacher.

This degree is designed to accommodate the differing requirements of the California State University and University of California campuses that offer the following baccalaureate majors: Liberal Studies, Interdisciplinary Studies, and Teacher Preparation (refer to www.ASSIST.org for current articulation for specific universities).

Students should complete a minimum of 18 units from the following Elementary Teaching Preparation courses:

AJ #25; ANTH 10; ART 1, 2, 3, 6, 7, 8, 11AD, 13AD, 15, 17AD, 23AD; BIOL 20, 22; BUS #25, #112;
CFS 80; CHEM 20; CHLD #39; COMM 1, 4, 5, 7, 8, #112 ; COMP 5, 130; DRAM 1, 2; EDUC 50; ENGL 1, 2, 4, 10, 15, 16, 17, 18, 25, 14AB, 30, 31, 44, 45; ESCI 1; ETHN 1, 23, 4; GEOG 1, 1L, 2, 3; GEOL 1;
GOVT 5, #25; HIST 17, 18, 23, 25; HW 1; LING 10, 111; MATH 10, 11, 21, 45, 70; MUS 1, 10, 13; NSCI 131; PHIL 1, 5, 12, 17, 20, 25; PHOT 1; PSCI 20; PSY #39; SOC 1; SSCI 10

# AJ 25 same as BUS 25 & GOVT 25; BUS 112 same as COMM 112; CHLD 39 same as PSY 39
F. MATH AND SCIENCE:

The mathematics courses encourage the understanding of basic mathematical concepts, quantitative reasoning and their applications. The natural science courses emphasize experimental methodology, testing hypotheses, and the power of systematic questioning. Students will develop a comprehension of the basic concepts of physical and biological sciences, and a sophisticated understanding of science as a human endeavor, including the limitations as well as the power of scientific inquiry.

This Area of Emphasis prepares students for baccalaureate majors including, but not limited to:
- Atmospheric Science
- Biotechnology
- Computer Science
- Engineering
- Enology
- Food and Nutritional Sciences
- Genetics
- Health Science
- Hydrology
- Kinesiology
- Natural Sciences
- Pre-Nursing (B.S.N.)
- Physics
- and all pre-professional majors: Pre-Med; Pre-Dental; Pre-Pharmacy; Pre-Physical Therapy; Pre-Optometry; Pre-Veterinary Med; and Pre-Chiropractic.

Students should complete a minimum of 18 units, including at least one mathematics course and at least one science course, from the following:

1. Mathematics: MATH 10, 11, 21, 45, 70, 75, 76, 77, 80, 81, 154; BUS 20, 119

2. Science: AG 4; ANTH 11; ASTR 10; BIOL 1, 2, 20, 21, 22, 25, 30, 31, 40, 60; CHEM 1, 2, 20, 21, 30; GEOG 1, 1L; GEOL 1, 4, 12; MET 1; PHYS 5, 6, 7, 20, 21; PLSI 1; PSCI 20

G. SOCIAL AND BEHAVIORAL SCIENCES:

These courses allow students to gain a basic knowledge of the cultural and social organizations in which they exist as well as the behavior and social organizations of other human societies. Students will develop an understanding of the perspectives and methods of the social and behavioral sciences.

This Area of Emphasis prepares students for baccalaureate majors including, but not limited to:
- African American Studies
- Anthropology
- Chicano Studies
- Child Development
- Communicative Disorders
- Criminology
- Economics
- Geography
- History
- Mass Communication and Journalism
- Political Science
- Psychology
- Social Work
- Sociology
- Women’s Studies.

Students should complete a minimum of 18 units from the following Social and Behavioral Science courses:

AGMT 1; AJ 11, #25, 114; ANTH 10, 12; BUS #25; CFS 80, #26; CHLD #39, 42; COMM 9;
ETHN 1, 2, 3, 4, 5; ECON 40, 50; GEOG 2, 3; GOVT 5, #7, #25; HIST 4, 5, 17, 18, 23, 24, 25; JOUR #7;
NUTR 20; PSYCH 1, 5, 10, 34, #39; SOC 1, 2, 23, 43, #26; SSCI 10

# AJ 25 same as BUS 25 & GOVT 25; CFS 26 same as SOC 26; CHLD 39 same as PSY 39;
GOVT 7 same as JOUR 7

3. ELECTIVE UNITS: Complete the balance of 60 transferable elective units with courses numbered 1-199. Courses numbered 1-99 transfer to UC (see UC unit limitations in the Graduation and Transfer section of this catalog) and courses numbered 1-199 transfer to CSU.
Deleted Courses
## Deleted Courses

### Drama

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAM 018AB</td>
<td>Advanced Theatre Crafts</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>DRAM 202AD</td>
<td>Acting for the Camera</td>
<td>Course is no longer offered.</td>
</tr>
</tbody>
</table>

### English

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 205</td>
<td>Workplace Literacy</td>
<td>Course is no longer offered.</td>
</tr>
</tbody>
</table>

### Linguistics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING 010</td>
<td>Introduction to Language</td>
<td>Course is no longer offered.</td>
</tr>
</tbody>
</table>

### Mathematics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 390AD</td>
<td>Math 360 Support Course</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>MATH 391AD</td>
<td>Math 200 Support Course</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>MATH 392AD</td>
<td>Math 230 Support Course</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>MATH 393AD</td>
<td>Math Support Course</td>
<td>Course is no longer offered.</td>
</tr>
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</table>

### Music

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Justification</th>
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</thead>
<tbody>
<tr>
<td>MUS 057AD</td>
<td>Advanced Classical Guitar</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>MUS 065AD</td>
<td>Guitar Ensemble</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>MUS 076AD</td>
<td>Pep Band</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>MUS 090AD</td>
<td>College Community Chorus</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>MUS 270AD</td>
<td>Dixieland Band</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>MUS 277AD</td>
<td>Marching Band Outreach</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>MUS 301</td>
<td>Introduction to Music</td>
<td>Course is no longer offered.</td>
</tr>
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### Natural Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Justification</th>
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</thead>
<tbody>
<tr>
<td>NSCI 132</td>
<td>Biology/Earth Science</td>
<td>Course is no longer offered.</td>
</tr>
</tbody>
</table>

### Nursing

<table>
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<th>Course Code</th>
<th>Course Name</th>
<th>Justification</th>
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</thead>
<tbody>
<tr>
<td>NURS 160</td>
<td>Transition Course</td>
<td>Course is no longer offered.</td>
</tr>
<tr>
<td>NURS 125</td>
<td>Critical Care Nursing</td>
<td>Course is no longer offered.</td>
</tr>
</tbody>
</table>
Reinstated/Omission Error Courses
### Reinstated Courses

**NUTRITION/FOODS**

**NUTR 106**  
**Professional Cooking 2**  
2 Lecture/Discussion hours per week and  
3 Lab hours per week-3 units  

**Course Description:**  
This class is designed so that performance standards meet employer expectations and enhance students' job market value. Students will demonstrate proficiency in food service skills, i.e., food presentation, sauces, meat cookery, baking and specialty cuisine.

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### Ommission Errors

**WORK EXPERIENCE**

**WEXP 193**  
**Work Experience - 1st Semester**  
5 TO 20 Lab hours per week-1 to 4 units  

This course is conducted to give the student occupational learning opportunities and career awareness. This is accomplished through employment (paid or volunteer) providing learning related to the student's educational or occupational goal. Limitation on Enrollment: Students must receive permission from the Coordinator of Cooperative Education or his/her designee to register.
New Courses
New Courses

AGRICULTURE

AG 102
Environmental Conservation
3 Lecture/Discussion hours per week - 3 units
Course Description:
A study of the world’s environment to sustain the highest quality of life. Includes the study of food and fiber systems, ecology, populations, environmental pollution, bioterrorism, and conservation of natural resources including energy, water, soils, forest, rangelands, and wildlife.

AG 220
Alternative Energy Resources
1 Lecture/Discussion hours per week - 1 unit
Equivalent Course: AUTO 220
Course Description:
Students will explore alternatives to gasoline and diesel for fuels, as well as becoming familiar with other forms of Bio-energy.

AGRICULTURE TECHNOLOGY

AGTC 211
Agriculture Transportation
14 Lecture/Discussion hours per week and 6 Lab hours per week - 16 units
Course Description:
This course is designed to assist students in preparation for taking their DMV Commercial Driving test for a Class A License. The focus is on high demand jobs in agriculture commodity.

AUTO

AUTO 255
Automotive Service Systems
36 Lecture/Discussion hours total and 18 Lab hours total - 2 units
Prerequisite: AUTO 130 or equivalent college course with a grade of “C” or better.
Course Description:
Students in this course will learn and apply the basic principles and applications required to perform the duties of a Service Consultant at an automotive facility. Customer relations will be the foremost topic of all work developed by the student. The course is also a preparation for the ASE C1 test.

CHEMISTRY

CHEM 025
Environmental Chemistry
3 Lecture/Discussion hours per week - 3 units
Course Description:
Fundamental principles of chemistry applied to current environmental issues. Principles include atomic and molecular structure, chemical calculations, gases and liquids, acids and bases, nuclear chemistry, polymers. Issues include air and water pollution, ozone depletion, global warming, energy waste disposal, nutrition. Advisory on Recommended Preparation: ENGL 251 or equivalent college course with a grade of “C” or better or eligibility for ENGL 1 as determined by COS placement procedures.

CHLD 261
Play, Space and Guidance
3 Lecture/Discussion hours per week - 3 units
Course Description:
This course will focus on the importance of play for young children and how the learning environment, along with the age appropriate materials, promotes children’s development. The class will explore how the environment affects behavior and students will learn strategies for guiding children’s behavior.
### New Courses

#### CULINARY

**CULN 230AD**  
The Italian Table  
.5 Lecture/Discussion hours per week and 1.5 Lab hours per week - 1 unit  
**Course Description:**  
Through lectures, demonstrations, and food preparation students will gain first-hand knowledge of a variety of culinary skills that will allow them to prepare Italian dishes. The course is repeatable four times to introduce students to the various regional foods and cooking techniques of Italy.

#### EDUCATION

**EDUC 120**  
Technology Skills for Educators  
3 Lecture/Discussion hours per week - 3 units  
**Course Description:**  
Information and hands-on explorations allow students to develop basic skills for using computer technology for productivity and instruction in educational settings. Major topics include basic computer terminology and functions, common computer applications (word processing, databases, spreadsheets, and presentation software), educational technology trends, and issues relating to the uses of computers in educational settings. Approved for distance education format. Advisory on Recommended Preparation: ENGL 251 or equivalent college course with "C" or better, or eligibility for ENGL 001 as determined by COS Placement procedures.

**EDUC 310AD**  
Teacher Aide Test Preparation  
1 Lecture/Discussion hours per week - 1 unit  
**Course Description:**  
Students review basic reading, writing, and math skills, understand test-taking strategies, acquire knowledge of techniques used to support instruction in reading, writing, and mathematics in schools. Provides preparatory class for instructional aide test to meet No Child Left Behind Act of 2001 requirements. This course emphasizes reading comprehension, English grammar and syntax, mathematics, basic writing skills, and other skills and dispositions necessary for supporting classroom instruction. Approved for distance education format. This course may be repeated three times.

#### COUNSELING

**COUN 110**  
First Year Experience Seminar  
3 Lecture/Discussion hours per week - 3 units  
**Course Description:**  
This course will provide students an opportunity to learn and adopt techniques, tools and methods that will enhance success in college, including goal-setting strategies; gain information about campus resources, regulations and graduation/transfer requirements; and use electronic databases, print resources and the Web for research purposes.

**COUN 122AD**  
Peer Counseling  
2 Lecture/Discussion hours per week - 2 units  
**Course Description:**  
This course focuses on utilizing and providing information from the COS catalog, the class schedule, student services, and community resources. Topics include academic policies, interpersonal communication skills, and peer counseling techniques. This course is required for participation in the college’s Student Ambassador Program.

#### CHILD DEVELOPMENT

**CHLD 310**  
Parenting for Education Success  
.50 Lecture/Discussion hours per week - 5 units  
**Course Description:**  
A course for parents to learn to take an active role in their child’s education. Parents will learn how to navigate the school system for their child’s success and understand the importance of their role in strengthening the partnership between home and school. Course repeatability is for school age levels: grade school, junior high and senior high. This class may be repeated two times.

**CHLD 410**  
Parents for Student Success  
Noncredit  
**Course Description:**  
This is a non-credit course for parents to learn how to take an active role in their child's education. Parents will learn how to navigate the school system for their child’s success and understand the importance of their role in strengthening the partnership between home and school.

**CUN 110**  
First Year Experience Seminar  
3 Lecture/Discussion hours per week - 3 units  
**Course Description:**  
This course will provide students an opportunity to learn and adopt techniques, tools and methods that will enhance success in college, including goal-setting strategies; gain information about campus resources, regulations and graduation/transfer requirements; and use electronic databases, print resources and the Web for research purposes.

**COUN 122AD**  
Peer Counseling  
2 Lecture/Discussion hours per week - 2 units  
**Course Description:**  
This course focuses on utilizing and providing information from the COS catalog, the class schedule, student services, and community resources. Topics include academic policies, interpersonal communication skills, and peer counseling techniques. This course is required for participation in the college’s Student Ambassador Program.
ENVIRONMENTAL TECHNOLOGY

ECT 266AD
Advanced Control Systems
1.5 Lecture/Discussion hours per week and
1.5 Lab per week-2 units
Course Description:
ECT 266AD is an advanced controls course designed
to introduce system setup, programming and applica-
tion engineering of building automation control
systems algorithms. To include temperature controls,
lighting controls, access controls and CCTV. This
course can be repeated three times.
Advisory on Recommended Preparation: ECT 265 or
equivalent college course with “C” or better.

ENGLISH AS A SECOND LANGUAGE

ESL 402
Beginning Writing and Grammar 1
Noncredit
Course Description:
This basic introduction course in English is designed
for the true beginner with little or no knowledge of
writing and grammar skills.

ESL 403
Beginning Reading/Vocabulary 1
Noncredit
Course Description:
This is a beginning course in English reading and
vocabulary and is designed for students to develop
basic reading techniques, vocabulary and study skills.

ESL 410
Beginning Writing and Grammar 2
Noncredit
Course Description:
This is a beginning course in English writing and
grammar skills and is designed to expand basic
writing and grammar skills for beginning level stu-
dents.

ESL 411
Beginning Reading and Vocabulary 2
Noncredit
Course Description:
This is a beginning course in English reading and
vocabulary and is designed for students to develop
and expand basic reading techniques, vocabulary and
study skills.

ESL 412AB
Beginning Pronunciation/Speaking
Noncredit
Course Description:
A beginning course in English pronunciation and
speaking skills. The course is designed for students to
develop basic speaking skills and to comprehend and
respond to basic spoken English.

ESL 420
Intermediate Writing/Grammar 3
Noncredit
Course Description:
This is a low intermediate level course for students
who have a basic foundation in English writing and
grammar. The course focuses on grammar and
paragraph writing.

ESL 421
Intermediate Reading/Vocabulary 3
Noncredit
Course Description:
This is a low intermediate course in English reading
and vocabulary and is designed to help students
comprehend and respond to basic academic and
vocational situations.

ESL 430
Intermediate Writing/Grammar 4
Noncredit
Course Description:
This is a high intermediate level course for students
who have a good foundation in English writing and
grammar. This course focuses on grammar, para-
graphs and narratives.

ESL 431
Intermediate Reading/Vocabulary 4
Noncredit
Course Description:
This is a high intermediate course in English reading
and vocabulary and is designed to expand reading
techniques vocabulary and study skills so that stu-
dents can comprehend and respond to intermediate-
level academic and vocational situations.
ENGLISH AS A SECOND LANGUAGE

ESL 432AB
Intermediate Pronunciation/Speaking
Noncredit
Course Description:
This is an intermediate level course in English pronunciation and speaking skills, designed for students to improve speaking skills so that students can comprehend and respond to spoken English in academic and vocational settings. This course can be repeated one time.

ESL 440
Advanced Writing/Grammar 5
Noncredit
Course Description:
This course is designed for intermediate advanced students with a working foundation in grammar and writing. This course is designed to review and build upon grammar and writing skills enabling the student to function in advanced academic and vocational writing environments.

ESL 441
Advanced Reading/Vocabulary 5
Noncredit
Course Description:
This course is designed for intermediate advanced students with a working foundation in reading and vocabulary skills. The course expands reading techniques, vocabulary, and study skills so that the student can effectively respond to written and spoken English in Advanced academic and vocational environments.

ESL 450
Advanced Writing/Grammar 6
Noncredit
Course Description:
This course is designed for high advanced students with a strong working foundation in grammar and writing. This course is designed to further review and refine grammar and writing skills enabling the student to successfully transition into more challenging college courses.

ENGLISH AS A SECOND LANGUAGE

ESL 451
Advanced Reading/Vocabulary 6
Noncredit
Course Description:
This course is designed for high advanced students with a strong working foundation in reading and vocabulary skills. The course expands reading techniques, vocabulary, and study skills so that the student can effectively respond to written and spoken English in advanced academic and vocational environments.

ESL 452AB
Advanced Pronunciation/Speaking
Noncredit
Course Description:
This is a high advanced level course in English pronunciation and speaking skills, designed to further develop functional spoken English for academic and vocational settings.

FIRE TECHNOLOGY

FIRE 249
36 total Lecture hours and
4 total Lab hours -2 units
Course Description:
This is the first of a two part course which teaches the operation and maintenance of fire apparatus. It includes; driver responsibilities, inspections of operating systems, driving in adverse conditions, off road, and emergency responses. Advisory on Recommended Preparation: Students are recommended to be currently employed as a full-time volunteer or seasonal fire fighter and possess a California Class "B" or California "Fire Fighter Restricted" drivers' license.
FIRE TECHNOLOGY

FIRE 250
Driver Operator 1B
36 total Lecture hours and
4 total Lab hours -2 units
Course Description:
This is the second of a two part course, which teaches
the operation and maintenance of fire apparatus. It is
required by many fire departments prior to personnel
being allowed to promote to Driver/Operator.
Advisory on Recommended Preparation: Students are
recommended to be currently employed as a full-time
volunteer or seasonal fire fighter and possess a
California Class "B" or California "Fire Fighter Re-
stricted" drivers' license.

HEALTH

HLTH 280
Interpreting in Health Care 1
2 Lecture hours per week-2 units
Course Description:
Provides a theoretical foundation for bilingual indi-
viduals to develop the awareness and knowledge
necessary for effective language interpretation in
health care settings. Emphasis on the roles and
responsibilities of a health care interpreter and insight
in language and cultural nuances for specific commu-
nities necessary in the art of interpretation.

INDUSTRY AND TECHNOLOGY

ITEC 281
Introduction to Robotics
1 Lecture hour per week and
3 Lab hours per week-2 units
Course Description:
This course is built around the fundamental
understanding of the systems that make up robots
and the development of workplace competencies.
The cornerstone of the class involves solving
engineering design problems.

ITEC 300
Applied Measurement for the Workplace
1-4 Lecture hours per week-1-4 units
Course Description:
An easy-to-use, computerized, open-entry/open-exit
applied mathematics course. This course teaches
methods to solve one-step mathematical operations
and to use these skills with work-related problems.
Examples and situations focus on applying problem-
solving skills in real-world situations. A variety of
interactive exercises helps students practice each
concept. A calculator function and formula sheet are
available to the learner with a simple mouse-click.
Detailed solutions to the problems are explained,
allowing students to analyze their mistakes. A full
human-voice sound track and immediate feedback
aid learning.

ITEC 302
Reading for Information
1-4 Lecture hour per week -1-4 units
Course Description:
An easy-to-use, computerized, open-entry/open exit
course designed to improve the student's comprehen-
sion of workplace communications such as memos,
policies, procedures, legal constraints, safety guide-
lines, and other technically dense documents. Ex-
amples and situations focus on applying problem-
solving skills in real-world situations. Uses a variety of
interactive exercises so the learner can practice each
concept. The course includes a full human-voice
sound track and immediate feedback to aid learning.
INDUSTRY AND TECHNOLOGY

ITEC 304
Locating Information
1-4 Lecture hour per week -1-4 units
Course Description:
An easy-to-use, computerized, open-entry/open-exit course to develop skills in using information presented in workplace graphics such as memos, tables, charts, and graphs. Examples and situations focus on applying this ability in real-world situations. Uses a variety of interactive exercises so that the learner can practice each concept. A full human-voice sound track and immediate feedback aid learning. Non-graded. Approved only for on-line distribution.

MATH 401
Preparation for Quantitative Qualifying Exams
Noncredit
Course Description:
A survey of the strategies and skills needed to prepare for exams that require familiarity with 7-11th grade math standards. Test preparation strategies and study methods will assist students in performing better on college placement exams.

MUSIC

MUS 472
Jazz Ensemble for Seniors
Noncredit
Course Description:
A course designed to offer opportunities for adults to participate in jazz ensemble music. Note: Field trips and outside of class performances may be required.

MUS 495
Community Chorus for Seniors
Noncredit
Course Description:
A course designed to offer opportunities for adults to participate in ensemble music with the Community chorus. Note: Outside of class performances required.

PHYSICAL EDUCATION

PE 107AD
Pilates Mat Class
.5 Lecture/Discussion per week and
1.5 Activity hours per week-1 unit
Course Description:
Pilates is a workout to condition and strengthen the muscles that support the spine. This Pilates Mat class is designed for all students and will develop flexibility, coordination, and balance through a safe progression of challenging and functional exercises. This course may be repeated three times.

PE 108AD
Yoga
.5 Lecture/Discussion per week and
1.5 Activity hours per week-1 unit
Course Description:
Introduction to basic yoga poses with emphasis on form and body alignment. Strength, flexibility, and balance emphasized in poses. Relaxation and breathing techniques also introduced. This class may be repeated three times.

PE 139AD
Team Sports
.50 Lecture/Discussion hours per week
1.5 Activity hours per week - 1 unit
Course Description:
Team sports are a skills and fitness class in which students will learn and participate in multiple disciplines of Team Sports. Team Sports offered include Volleyball, Badminton, Floor Hockey, Basketball, Dodge ball, Frisbee, Golf, etc. See class schedule for particular sport(s) offered each semester.
PHYSICAL EDUCATION

PE 143AD
Inner Tube Water Polo
.50 Lecture/Discussion hours per week
1.5 Activity hours per week - 1 unit

Course Description:
This course provides students with an opportunity to develop fundamental skills of the sport of inner tube water polo, as well as an understanding of the team strategies and individual skills that are necessary to be successful in the class. This course may be repeated three times.

PE 310
Beginning Weight Training
1.5 Activity hours per week -.5 unit

Course Description:
This course is designed as a general introduction to weight training. Students will learn the proper lifting techniques and safety rules of free weights and weight machines.
Modified Courses
Modified Courses

ACCOUNTING

ACCT 001
Financial Accounting (page 207)
4 Lecture/Discussion hours per week-4 units
Modifications: Addition of Distance Education Addendum for online instruction.
Change in Lecture/Discussion hours from 5 hours per week.
Revised Course Description: This course introduces students to fundamental business organization, recording of business financial activities, accounting statements preparation, interrelationships, and the analysis of financial activities for business entities with an emphasis on accounting for corporations. This course is approved for distance education format. CAN BUS 2

ACCT 002
Managerial Accounting (page 207)
4 Lecture/Discussion hours per week-4 units
Modifications: Addition of Distance Education Addendum for online instruction.
Change in Lecture/Discussion hours from 5 hours per week.
Revised Course Description: This is a second semester transfer-level course, which studies managerial control, job and process costing, activity based costing, standard costs, planning cost accumulation and capital budgeting and planning techniques; and other measuring and reporting methods. This course is approved for distance education format.

ADMINISTRATION OF JUSTICE

AJ 011
Introduction to Criminal Justice (page 207)
3 Lecture/discussion hours per week-3 units
Modifications: Addition of Distance Education Addendum for online, interactive TV, and correspondence instruction.

AJ 014
Criminal Law 1 (page 207)
3 Lecture/discussion hours per week-3 units
Modification: Five year review.

AJ 045
Terrorism and Freedom (page 209)
3 Lecture/discussion hours per week-3 units
Modification: Course number changed from AJ 145 to AJ 045 to comply with COS course number system indicating UC transfer.

AJ 112
Legal Aspects of Evidence (page 208)
3 Lecture/discussion hours per week-3 units
Modification:
Revised Course Description: The origin, development, philosophy, constitutional and procedural basis of evidence; judicial decisions and statutory rules of evidence governing the admissibility of testimony, writings and material objects.

AJ 114
Juvenile Delinquency (page 208)
3 Lecture/discussion hours per week-3 units
Modifications: Addition of Distance Education Addendum for online instruction.
Course outline updated.
Revised Course Description: This is an introductory course designed to explore the concept of juvenile delinquency. Emphasis is on defining delinquency, identifying delinquents, examining theories of causation, identifying institutions for delinquents and identifying community-based programs designated to prevent delinquency. This course is approved for distance education format. Advisory on Recommended Preparation: ENGL 251 or equivalent college course with “C” or better or eligibility for ENGL 1 determined by COS Placement Procedures.

AJ 118
Criminal Investigation (page 208)
3 Lecture/discussion hours per week-3 units
Modification: Course outline update.

AJ 123
Criminal Justice Ethics (page 208)
3 Lecture/discussion hours per week-3 units
Modifications: Addition of Distance Education Addendum for online instruction.
Revised Course Description: This course allows students the opportunity to explore ethical issues in the field of criminal justice through analysis and critical thinking and apply these concepts to both their professional and personal lives. This course is approved for distance education format. Advisory on Recommended Preparation: ENGL 251 or equivalent college course with “C” or better.
# Modified Courses

## AGRICULTURE

**AG 001**  
Ag. Society & the Environment *(page 208)*  
3 Lecture/discussion hours per week -3 units  

**Modifications:**  
Addition of Distance Education Addendum for online instruction.  
Deletion of Advisory on Recommended Preparation.  

**Revised Course Description:**  
The sociology of agriculture (Ag) is presented through examination of relationships between societies and their environments, economics and Ag. Emphasis is on analysis of agriculture’s use of technology and the corresponding impact on the environment, economy, and society. Approved for Distance Education format.

## AGRICULTURE MANAGEMENT

**AGMT 001**  
Agriculture Economics *(page 211)*  
3 Lecture/discussion hours per week -3 units  

**Modifications:**  
Change in Lecture and Lab hours from 3 Lecture/Discussion and 1 lab hour per week.

## AGRICULTURE TECHNOLOGY

**AGTC 214**  
Outdoor Power Equipment *(page 212)*  
3 Lecture/Discussion hours per week -3 units  

**Modification:**  
5-year review-no changes specified

## AMERICAN SIGN LANGUAGE

**ASL 001**  
Beginning American Sign Language 1 *(page 214)*  
4 Lecture/discussion hours per week-4 units  

**Modification:**  
Five year review.

**ASL 002**  
Beginning American Sign Language 2 *(page 215)*  
3 Lecture/discussion hours per week-3 units  

**Modification:**  
Five year review.  
Change in TOP code to 085000 from Other education 089900.

## ANIMAL SCIENCE

**ASCI 001**  
Introduction to Animal Science *(page 215)*  
2 Lecture/discussion hours per week and 3 Lab hours per week-3 units  

**Modifications:**  
Change in Lecture hours from 3 Lecture hours per week and 1 Lab hour per week.  

**Revised Course Description:**  
The course surveys the livestock industry, supply of animal products and their uses and analyzes economic trends and career opportunities in animal agriculture. Special emphasis is on the origin, characteristics, adaptation and contributions of farm animals to the Ag industry.

**ASCI 103**  
Animal Nutrition *(page 215)*  
3 Lecture/discussion hours per week and 1 Lab hours per week-3 units  

**Modifications:**  
Five year update.  
Advisory on Recommended Preparation deleted.  
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**Revised Course Description:**  
In this course, the fundamentals of digestion and absorption in both ruminants and non-ruminants are discussed. The nutritive value of feeds as they relate to formulation of livestock rations are emphasized.
ARCH 120
Freehand Drawing (page 218)
2 Lecture/Discussion hours per week
3 Lab hours per week-3 units
Modifications:
Change in Lecture/Discussion hours from 2 Lecture/Discussion hours and 2 Lab hours per week.
Revised Course Description: An introductory course of freehand drawing techniques applicable to the design and construction of the built environment. Freehand drawing is an integral part of the architect’s design process. It is instrumental in concept development, creative problem solving, documenting and perceiving space, visualization, and observation skills. Techniques include shading, shape definition, form definition, human scale, and entourage utilizing pencil, ink, color media, and combination media. Advisory added: Advisory on Recommended Preparation: ARCH 020 or equivalent college course with “C” or better.

AUTOMOTIVE TECHNOLOGY

AUTO 254
Automotive Information Systems (page 224)
1 Lecture/discussion hours per week and
3 Lab hours per week-2 units
Modifications: Lecture and Lab hours changed from 2 Lecture hours per week and 1 lab hour per week.

AUTO 267
Automotive Brake and Suspension Service (page 225)
27 total Lecture/Discussion hours and
27 total Lab hours -2 units
Modifications: Change in title from Auto Wheel Alignment/Service Added Prerequisite: AUTO 134 and AUTO 135 or equivalent college course with ”C” or better.
Revised Course Description: This course includes instruction and laboratory tasks to allow students to become proficient in automotive brake and suspension system service. It is also preparation for the ASE under-car specialist certification test (X1). Prerequisite may be waived with equivalent skills and knowledge as determined by departmental assessment.

AUTO 269
Brake/Headlamp Certification Preparation (page 225)
1 Lecture/discussion hours per week and
3 Lab hours per week-2 units
Modifications: Lecture and Lab hours changed from 2 Lecture hours per week and 1 lab hour per week (9 week course: 36 Lecture/Discussion per week and 18 Lab hours per week).

BIOLOGY

BIOL 031
Human Physiology (page 226)
3 Lecture/Discussion hours per week and
3 Lab hours per week-4 units
Modifications: Addition of Distance Education Addendum for online and interactive TV (simulcast) instruction.
Advisory on Recommended Preparation changed.
Revised Course Description: Students will study the function of the major organ systems of the human body. Emphasis is on maintenance of homeostasis, regulatory mechanisms, cellular function and integration among systems. Laboratory experiments and exercises are designed to reinforce theories and processes described in lecture and to introduce students to basic physiological scientific investigation.
Advisory on Recommended Preparation: BIOL 030 and CHEM 020 or CHEM 030 or equivalent college course with a grade of “C” or better.

BIOL 180
Lab Techniques & Practices (page 226)
1 Lecture/Discussion hours per week and
3 Lab hours per week-4 units
Equivalent Course: CHEM 180
Modifications: Advisory on Recommended Preparation changed.
Revised Course Description: This course introduces students to the techniques and practices used in laboratory settings. Topics will include lab safety, separation techniques, and measurements using a variety of instruments. Care and maintenance of instruments are also covered in the course. Advisory on Recommended Preparation: Completion of or co-enrollment in a transfer level chemistry course or equivalent college course with a grade of “C” or better.
### BUSINESS

**BUS 082**  
Introduction to Business *(page 227)*  
3 Lecture/Discussion hours per week-3 units  
**Modification:** Addition of Distance Education Addendum for online instruction.

**BUS 185**  
Ethics in Business and Industry *(page 228)*  
3 Lecture/Discussion hours per week-3 units  
**Modifications:**  
Addition of Distance Education Addendum for online and correspondence instruction.

**BUS 256**  
Medical Terminology *(page 228)*  
3 Lecture/Discussion hours per week-3 units  
**Modifications:**  
Addition of Distance Education Addendum for online.

**BUS 360AC**  
Elementary Keyboarding *(page 229)*  
1 Lecture/discussion hours per week and 2 Lab per week for 9 weeks- 1 unit  
**Modification:** Addition of Distance Education Addendum for online instruction.  
**Material Fee changed from $10 to $20.**  
**Revised Course Description:** This course introduces students to the computer keyboard. Students will use the touch method to key letters, numbers, symbols, and the numeric keypad. This course may be repeated twice.

**BUS 361AC**  
Elementary Keyboarding for ESL *(page 229)*  
1 Lecture/discussion hours per week and 2 Lab per week for 9 weeks- 1 unit  
**Modification:** Addition of Distance Education Addendum for online instruction.  
**Material Fee changed from $10 to $20.**  
**Revised Course Description:** This course introduces the ESL student to the computer keyboard. Students will use the touch method to key letters, numbers, symbols, and the numeric keypad. This course may be repeated twice. Limitation on Enrollment: Limited to students enrolled in the ESL Program.

### CHEMISTRY

**CHEM 180**  
Lab Techniques & Practices *(page 230)*  
1 Lecture/Discussion hours per week and 3 Lab hours per week-4 units  
**Equivalent Course:** CHEM 180  
**Modifications:**  
**Advisory on Recommended Preparation changed.**  
**Revised Course Description:** This course introduces students to the techniques and practices used in laboratory settings. Topics will include lab safety, separation techniques, and measurements using a variety of instruments. Care and maintenance of instruments are also covered in the course. Advisory on Recommended Preparation: Completion of or co-enrollment in a transfer level chemistry course or equivalent college course with a grade of “C” or better.

### CHILD DEVELOPMENT

**CHLD 042**  
Child, Family and Society *(page 231)*  
3 Lecture/discussion hours per week-3 units  
**Modification:** Addition of Distance Education Addendum for online instruction.  
**Revised Course Description:** The study of the social development of young children with emphasis on the interactions among and between children, families, and community systems. This course is required for the Child Development Permit and core curriculum for employment in child care centers.
CHLD 149
Creative Curriculum for Young Children DS3 (page 232)
2 Lecture/Discussion hours per week
3 Lab hours per week-3 units
**Modifications:**
Change in Lecture/Discussion hours from 2 Lecture/Discussion hours and 1 Lab hours per week.
Units changed from 2 units.
Title changed from: Creative Activity for Children DS3
Repeatability removed.
**Revised Course Description:** This course presents an overview of knowledge and skills related to providing age-appropriate curriculum and environments for young children. It is designed to prepare child development students in the planning, development and implementation of a wide variety of preschool curriculum. Emphasis is on age and developmentally appropriate practices, theory and curriculum topics. Students will integrate cognitive theory into practicum in the areas of language and literacy, social/emotional learning, sensory learning, creative art, math and science.

CHLD 163AD
After School Programs (page 233)
4 Lecture/Discussion hours per week-4 units
**Modifications:**
Change in Lecture/Discussion hours from 3 Lecture/Discussion hours and 3 Lab hours per week.
**Revised Course Description:** The course is a study of literacy/numeracy curriculum in after-school enrichment programs, such as, the HEART program. It is designed to cover social, cognitive, and physical development of school-age children, curriculum development, enrichment activities and classroom management. This course is designed to be taught and offered only during the summer term. This course may be repeated three times.

COMM 005
Argumentation and Debate (pages 234)
3 Lecture/Discussion hours per week-3 units
**Modification:** Addition of Distance Education addendum for online instruction.

COUN 100
Equivalent Course: HDEV 100
Career Planning (pages 242)
3 Lecture/Discussion hours per week-3 units
**Modification:** Addition of Distance Education addendum for online instruction.

COUN 120AB
Student Success (pages 242)
2 Lecture/Discussion hours per week-2 units
**Modification:** Addition of Distance Education addendum for online instruction.

DSCI 101
Introduction to Dairy Science (pages 243)
3 Lecture/Discussion hours per week and 1 Lab hour per week-3 units
**Modifications:**
Title change from: Elements of Dairying
**Revised Course Description:**
This course will include a survey of the dairy industry and supply and use of milk. I will cover general information on the economics of dairying; trends, dairy animal selection, culling, fitting, showing, and judging; pedigree evaluation; basic dairy feeds; fundamentals of bovine reproduction; basic dairy management skills; and opportunities in the dairy industry.

DSCI 200
Applied Dairy Mechanics (pages 244)
2 Lecture/Discussion hours per week and 2 Lab hour per week-2 units
**Modifications:**
Title change from: Applied Mechanics in Dairy Science
**Revised Course Description:**
This course focuses on construction, repair and maintenance of dairy equipment and facilities. Content includes basic welding and repair of commonly found equipment and fences on dairies, and maintenance and service of equipment such as feed wagons, skip loaders, tractors and trailers.
ENGLISH

ENGL 251
Introduction to Academic Reading & Writing (page 253)
4 Lecture/Discussion hours per week-4 units
Modifications:
Title changed from Introduction to Academic Writing.
Change in Lecture/Discussion hours from 3 Lecture/Discussion hours per week.
Change in units from 3.
Revised Course Description: This course emphasizes analytical reading and writing as processes that result in compositions appropriate for entry into transfer level academic study. Advisory on Recommended Preparation: ENGL 360 or equivalent college course with a grade of "C" or better or eligibility for ENGL 251 as determined by COS placement procedures.

ENVIRONMENTAL CONTROL TECHNOLOGY

ECT 260
Basic Refrigeration (page 257)
1.5 Lecture/Discussion hours per week and 1.5 Lab per week-2 units
Modification: Changed hours per week from:
2 Lecture/Discussion per week
1 Lab per week

ECT 262
Heating Systems & Controls (page 257)
1.5 Lecture/Discussion hours per week and 1.5 Lab per week-2 units
Modifications:
Changed hours per week from:
2 Lecture/Discussion per week
1 Lab per week
Revised Course description:
ECT 262 is an advanced course offered in residential and light-commercial heating that covers theory, design, controls, and operation of modern day space heating systems. The students will study the practical wiring of circuits, and the diagnosing of problems found in both residential and light-commercial applications. This course provides essential knowledge for a student seeking further advancement in their career.
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Modified Courses

FIRE TECHNOLOGY

FIRE 275
Fire Command 1C (page 262)
36 total Lecture hours and
4 total Lab hours-2 units
Modifications:
Changed hours per week from:
30 total Lecture/Discussion hours and
10 total Lab hours.

GEOGRAPHY

GEOG 001
Physical Geography (page 263)
3 Lecture/Discussion hours per week-3 units
Modifications:
Added distance education addendum for online instruction.
Change in Advisory on Recommended Preparation.
Revised Course Description: An investigation of weather, climate, landforms, and maps. An emphasis is placed on using the methodologies of scientific inquiry to explain the distribution of physical phenomena on the surface of the earth and on examining the relationship between man and the natural environment. This course is approved for distance education format. Advisory on Recommended Preparation: MATH 200, MATH 205 or equivalent college course with “C” or better, or eligibility for MATH 230 determined by COS Placement Procedures; and ENGL 251 or equivalent college course with a “C” or better, or eligibility for ENGL 001 determined by COS Placement Procedures. CAN GEOL 2.

GEOL 251
Geology of the Mojave Desert (page 264)
SHORT TERM CLASS
.8 Lecture/Discussion hours per week
.55 Lab hours per week
.05 Activity hours per week - 1 unit
Modifications:
Changed hours per week from:
6 Lecture/Discussion (total)
18 Lab (total)
6 Activity (total)
Dropped Prerequisite and added Advisory on Recommended Preparation.
Revised Course description:
This field trip course introduces the geology of the Mojave Desert. Major themes include tectonics and structure, mineral resources and mining, and energy resources. Some geologic features will be discussed en route, while extended stops, that include some hiking, allow closer examination of phenomena such as faults, volcanoes, mines, and solar power plants. Advisory on Recommended Preparation: ENGL 251 or equivalent college course with “C” or better or eligibility for ENGL 1 as determined by COS Placement Procedures.

HEALTH AND WELLNESS

HW 001
Personal & Community Health (page 265)
3 Lecture/Discussion hours per week-3 units
Modification: Distance Education Addendum added-online.

HISTORY

HIST 017
People of the US to 1865 (page 266)
3 Lecture/Discussion hours per week-3 units
Modification: Distance Education Addendum added for online and interactive TV instruction.
## Modified Courses

### HISTORY

**HIST 018**  
People of the US after 1865 *(page 266)*  
3 Lecture/Discussion hours per week-3 units  
**Modification:** Distance Education Addendum added for online and interactive TV instruction.

**HDEV 100**  
Career Planning *(page 267)*  
3 Lecture/Discussion hours per week-3 units  
**Equivalent Course:** COUN 100  
**Modification:** Addition of Distance Education addendum for online instruction.

### INDUSTRY AND TECHNOLOGY

**ITEC 101**  
Industrial Maintenance,  
Option A *(page 268)*  
10 Lecture/Discussion hours per week and 15 Lab hours per week-15 units  
**Modifications:**  
Five year review.  
Title changed from: Industrial Maintenance Technician, Option A  
Units changed from 13.  
Hours changed from 8 hours of Lecture per week and 17 lab hours per week.  
**TOP Code changed from 934.20**

**ITEC 105AD**  
Industrial Maintenance *(page 268)*  
3 Lecture/Discussion hours per week and 3 Lab hours per week-4 units  
**Modifications:**  
Five year review.  
Title changed from: Industrial Maintenance Technician, Option B  
**Revised Course Description:**  
This employment-oriented class will provide the students with knowledge and skills in the areas of basic electricity, industrial electrical controls, programmable logic controllers, instrumentation, pneumatics and hydraulics, machine tool operation, refrigeration principles, and welding practices. ITEC 105AD requires four semesters of course work and work experience to complete the certification requirement.

### HUMAN DEVELOPMENT

**HDEV 120AB**  
Equivalent Course: COUN 120AB  
**Student Success (pages 267)**  
2 Lecture/Discussion hours per week-2 units  
**Modification:** Addition of Distance Education Addendum for online instruction.

### HUMAN SERVICES

**HSRV 120**  
Introduction to Social Welfare *(page 267)*  
3 Lecture/Discussion hours per week-3 units  
**Modification:** Addition of Distance Education addendum for online instruction.

**HSRV 122**  
Introduction to Human Services *(pages 268)*  
3 Lecture/Discussion hours per week-3 units  
**Modification:** Addition of Distance Education Addendum for online instruction.

### INDUSTRY AND TECHNOLOGY

**ITEC 100**  
Industrial Maintenance,  
Option A *(page 268)*  
10 Lecture/Discussion hours per week and 15 Lab hours per week-15 units  
**Modification:**  
Five year review.  
Title changed from: Industrial Maintenance Technician, Option A  
Units changed from 13.  
Hours changed from 8 hours of Lecture per week and 17 lab hours per week.
## Modified Courses

### MATHEMATICS

**MATH 010**  
Structures and Concepts 1 *(page 275)*  
4 Lecture/Discussion hours per week-4 units  
**Modifications:**  
Five year review.  
**Prerequisite changed to:** MATH 230 or equivalent college course with “C” or better.  
**Revised Course Description:**  
This is a four-unit course covering critical thinking, sets and functions, numeration and computation, number theory, rational numbers, and real numbers. The emphasis of this course is in mathematical foundations of arithmetic relevant to future elementary school teachers. This course is intended for liberal studies students, though it can be used to meet general education requirements. Supplemental learning assistance is available for students to strengthen skills and to reinforce student mastery of concepts. Students enrolled in MATH 010 may access the supplemental learning assistance by enrolling in MATH 400, an open entry/open exit non-credit course. CAN MATH 4  

**MATH 011**  
Structures and Concepts 2 *(page 275)*  
4 Lecture/Discussion hours per week-4 units  
**Modifications:**  
Five year review.  
**Revised Course Description:**  
This course continues topics from MATH 10 and includes statistics, probability, geometry, measurement, transformations, congruence, and coordinate geometry. The emphasis of this course is in mathematical topics relevant to future elementary school teachers. This course is intended for liberal studies students, though it can be used to meet general education requirements. Supplemental learning assistance is available for students to strengthen skills and to reinforce student mastery of concepts. Students enrolled in MATH 011 may access the supplemental learning assistance by enrolling in MATH 400, an open entry/open exit non-credit course.

### MATHEMATICS

**MATH 070**  
Pre-Calculus *(page 275)*  
5 Lecture/Discussion hours per week-5 units  
**Modifications:**  
Five year review.  
**Revised Course Description:**  
This course proceeds at an intense pace. Topics include: functions and graphs, applications of functions, exponential and logarithmic functions, trigonometric functions and analytic trigonometry, right triangle trigonometry, analytic geometry, and roots of polynomial equations. This course is intended for students planning to take calculus. Supplemental learning assistance is available for students to strengthen skills and to reinforce student mastery of concepts. Students enrolled in MATH 070 may access the supplemental learning assistance.  

**MATH 077**  
Calculus 3 *(page 276)*  
3 Lecture/Discussion hours per week-3 units  
**Modification:**  
Five year review.  

**MATH 081**  
Differential Equations *(page 276)*  
5 Lecture/Discussion hours per week-5 units  
**Modifications:**  
Five year review.  
**Advisory on Recommended Preparation added.**  
**Revised Course Description:**  
An introduction of solving ordinary and partial differential equations including matrix solutions of linear systems, Laplace transforms, series solutions, separation of variables in partial differential equations, boundary value problems, and Fourier series. Supplemental learning assistance is available for students to strengthen skills and to reinforce student mastery of concepts. Students enrolled in MATH 081 may access the supplemental learning assistance by enrolling in MATH 400, an open entry/open exit non-credit course.  
**Advisory on Recommended Preparation:** MATH 080 or equivalent college course with “C” or better.
### Modified Courses

#### MATH 154
**Trigonometry (page 276)**

4 Lecture/Discussion hours per week - 4 units

**Modifications:**
- Units changed from 5.
- Lecture hours per week changed from 5 lecture hours per week.

**Added Distance Education Addendum for online and correspondence instruction.**

**Revised Course Description:**
An intensive one-semester course in the elements of trigonometry including: trigonometric functions, solving triangles for unknown parts, proving and applying identities, graphing, solving trigonometric equations, expressing and using complex numbers in trigonometric form. Students enrolled in MATH 154 may access the supplemental learning assistance by enrolling in MATH 400, an open entry/open exit non-credit course. Supplemental learning assistance is available for students to strengthen skills and to reinforce student mastery of concepts. Students enrolled in MATH 081 may access the supplemental learning assistance by enrolling in MATH 400, an open entry/open exit non-credit course.

#### MATH 200
**Elementary Algebra (page 276)**

4 Lecture/Discussion hours per week - 4 units

**Modifications:**
- Added Distance Education Addendum for online and correspondence instruction.

**Revised Course Description:**
This is a four-hour-a-week intensive one-semester course in elementary algebra covering: operations with real numbers, linear equations and inequalities, graphing, systems of equations, word problems, exponents, factoring, and rational expressions. Supplemental learning assistance is available for students to strengthen skills and to reinforce student mastery of concepts. Students enrolled in MATH 200 may access the supplemental learning assistance by enrolling in MATH 400, an open entry/open exit non-credit course. Approved for Distance Learning format.

Advisory on Recommended Preparation: MATH 360 or MATH 365 or equivalent college course with “C” or better; or eligibility for MATH 200 or 205 as determined by COS placement procedures.

#### MATH 205
**Beginning Algebra (page 277)**

3.5 Lecture/Discussion hours per week and 1.5 Activity hours per week - 4 units

**Modifications:**
- Hours per week changed from 5 Lecture/Discussion hours per week.

**Advisory on Recommended Preparation changed.**

**Revised Course Description:**
This is a five-hour-a-week, one-semester course in beginning algebra covering: operations with real numbers, linear equations and inequalities, word problems, factoring, rational expressions, graphing and exponents. This course will benefit students who need more time on task and a slower paced environment. Supplemental learning assistance is available for students to strengthen skills and to reinforce student mastery of concepts. Students enrolled in MATH 205 may access the supplemental learning assistance by enrolling in MATH 400, an open entry/open exit non-credit course.

Advisory on Recommended Preparation: MATH 360 or 365 or equivalent college course with a grade of “C” or better or eligibility for MATH 200 or 205 as determined by COS Placement Procedures.

#### MATH 360
**Pre-Algebra (page 277)**

4 Lecture/Discussion hours per week - 4 units

**Modifications:**
- Added Distance Education Addendum for correspondence and online/hybrid instruction.

**Revised Course Description:**
This four-hour-a-week course focuses on the fundamental operations of whole and signed numbers, fractions, mixed numbers, decimals, and their use in applied problems. Other topics include factors and multiples, ratios, proportions, introductory algebra, percents, unit conversions, and geometric measurements. All topics are taught with a pre-algebra perspective. Supplemental learning assistance is available for students to strengthen skills and to reinforce student mastery of concepts. Students enrolled in MATH 360 may access the supplemental learning assistance by enrolling in MATH 400, an open entry/open exit non-credit course.
## Modified Courses

### MATHEMATICS

**MATH 365**  
Arithmetic & Pre-Algebra (page 277)  
3.5 Lecture/Discussion hours per week and 1.5 Activity per week-4 units  
**Modifications:**  
Hours per week changed from 5 Lecture/Discussion hours per week.  
**Revised Course Description:**  
This course focuses on the fundamental operations of whole and signed numbers, fractions, mixed numbers, decimals, and their use in applied problems. Other topics include factors and multiples, ratios, proportions, introductory algebra, percents, unit conversions, and geometric measurements. This course will benefit students who need more time on task and a slower paced environment. Supplemental learning assistance is available for students to strengthen skills and to reinforce student mastery of concepts. Students enrolled in MATH 365 may access the supplemental learning assistance by enrolling in MATH 400, an open entry/open exit non-credit course.

### METEOROLOGY

**MET 001 365**  
Elementary Meteorology (page 278)  
3 Lecture/Discussion hours per week -3 units  
**Modification:** Five year review.

### MUSIC

**MUS 033AD**  
Men's Chorus (page 282)  
3 Lab hours per week-1 unit  
**Modification:** Course update.  
Course number changed from MUS 133AD to MUS 033AD to comply with the COS Numbering System indicating UC transfer.

**MUS 034AD**  
Concert Choir (page 279)  
6 Lab hours per week-2 units  
**Modifications:** Changed hours per week from:  
2 Lecture/Discussion per week  
3 Lab per week  
**Revised Course Description:**  
MUS 034AD offers a study and the performance of choral literature from the Renaissance to Contemporary with emphasis on vocal production and tone quality, balance and blend, and musical precision and accuracy. Participation in public performance is required. This course can be repeated three times.

**MUS 035AD**  
Concert Choir 2 (page 279)  
6 Lab hours per week-2 units  
**Modifications:** Changed hours per week from:  
2 Lecture/Discussion per week  
3 Lab per week  
**Revised Course Description:**  
Study and performance of advanced choral literature from the Renaissance to Contemporary with emphasis on proper performance practices, musical precision and accuracy. Participation in public performance is required. This course is designed to give the advanced choral musician a working relationship with the musical demands of performing symphonic and advanced a Capella choral works. This class may be repeated three times. Advisory on Recommended Preparation: MUS 34AD or equivalent college course with a “C” or better.  
Limitation on Enrollment: Audition by department.
Modified Courses

MUSIC

MUS 036AD
Chamber Singers (page 279)
6 Lab hours per week-2 units

**Modifications:** Changed hours per week from:
2 Lecture/Discussion per week
3 Lab per week

**Revised Course Description:**
MUS 036AD is designed to provide an environment for study of choral literature, techniques and performance with experienced vocal students. This course focuses on works written for Chamber ensembles. This course can be repeated three times. Limitation on Enrollment: Audition by Department.

MUS 047AD
H.S. Honor Choir Workshop (page 282)
1.5 Lab hours per week-.5 unit

**Modifications:**
Change in units from 1 unit.
Change in total class hours from 8 Lecture/Discussion and 19 Lab hours.

**Course number changed from MUS 147AD to MUS 047AD to comply with the COS Numbering System indicating UC transfer.**

**Revised Course Description:**
A study and performance of standard a cappella choir repertory targeted toward high school students interested in improving their musicianship. One outside or public performance is required. This course may be repeated three times. Limitation on Enrollment: Audition by Department.

NURSING

NURS 153
Promoting Pediatric Wellness (page 284)
2 Lecture/Discussion hours per week and 6 Lab hours per week-4 units

**Modifications:**
Lab hours changed from 12 Lab hours per week.
Prerequisite changed to: NURS 161 or equivalent college course with a grade of “C” or better from NURS 150 or NURS 161 or equivalent course with “C” or better.

NURS 154
Promoting Mental Wellness (page 284)
2 Lecture/Discussion hours per week and 6 Lab hours per week-4 units

**Modification:**
Lab hours changed from 12 Lab hours per week.

NUTRITION

NUTR 114
Cooking for a Healthy Life (page 287)
2 Lecture/Discussion hours per week and 3 Lab hours per week-4 units

**Modifications:** Lab hours changed from 2 Lecture/Discussion hours per week and 2 Lab hours per week.

PHILOSOPHY

PHIL 001
Introductory Philosophy (page 292)
3 Lecture/Discussion hours per week-3 units

**Modifications:**
Added Distance Education Addendum for online instruction.
Five year update.
Change in TOP code to 1509.00

PHIL 006
Introductory Philosophy (page 292)
3 Lecture/Discussion hours per week-3 units

**Modifications:**
Course number changed from PHIL 106 to PHIL 006 to comply with the COS Numbering System indicating UC transfer.
PHILOSOPHY

PHIL 013
Introduction to the Old Testament (page 292)
3 Lecture/Discussion hours per week-3 units
Modifications:
Added Distance Education Addendum for online instruction.
Revised Course Description:
A survey of the religion of the Hebrews with particular emphasis on the thought, theology and writings of the Old Testament. Myth, themes and language of religion will be examined according to the historical time period. Approved for distance education format. Advisory on Recommended Preparation: ENGL 251 or equivalent college course with “C” or better, or eligibility for ENGL 1 determined by COS Placement Procedures.

PHIL 014
Introduction to the Old Testament (page 292)
3 Lecture/Discussion hours per week-3 units
Modifications:
Added Distance Education Addendum for online instruction.
Revised Course Description:
An introduction to the early Christian community in the period following the death of Christ. New Testament writing is traced through the thought and theology of the historical time period. Advisory on Recommended Preparation: ENGL 251 or equivalent college course with “C” or better, or eligibility for ENGL 1 determined by COS Placement Procedures.

PHILOSOPHY

PHIL 020
Introductory Logic (page 292)
3 Lecture/Discussion hours per week-3 units
Modifications:
Added Distance Education Addendum for online instruction.
Revised Course Description:
Student will determined the truth of arguments based on logical structure. For ease of proof, ordinary language will be translated into symbols. This course has philosophical implications for areas of study such as mathematics, computer sciences, law, philosophy and electronics. This course is approved for distance education format. Advisory on Recommended Preparation: ENGL 001 or equivalent college course with “C” or better or MATH 230 or equivalent college course with “C” or better.
Change in TOP code to 1509.00

PHIL 025
Critical Thinking (page 292)
3 Lecture/Discussion hours per week-3 units
Modifications:
Added Distance Education Addendum for online instruction.
Revised Course Description:
Principles and methods of reasoning including identification of arguments, use of language, common errors, and development of strong deductive and inductive arguments. Students are required to write 6,000 to 8,000 words in several essays to demonstrate critical thinking.

PHYSICAL EDUCATION

PE 001AD
Aerobic Conditioning (page 293)
.5 Lecture/Discussion per week and
1.5 Activity hours per week-1 unit
Modifications:
Course update and new course outline format.
PHYSICAL EDUCATION

PE 002AD
Non-Impact Aerobics (page 293)
.5 Lecture/Discussion per week and
1.5 Activity hours per week-1 unit
Modifications:
Course update and new course outline format.

PE 003AD
Walking/Jogging for Aerobic Fitness (page 293)
.5 Lecture/Discussion per week and
1.5 Activity hours per week-1 unit
Modifications:
Course update and new course outline format.

PE 004AD
Weight Training (page 293)
.5 Lecture/Discussion per week and
1.5 Activity hours per week-1 unit
Modifications:
Course update and new course outline format.

PE 015AD
Fundamentals of Football (page 294)
.5 Lecture/Discussion per week and
1.5 Activity hours per week-1 unit
Modifications:
Course update and new course outline format.

PLANT SCIENCE

PLSI 113
Grape and Vine Production (page 299)
3 Lecture/Discussion per week and
1 Lab hour per week-3 units
Modifications:
Advisory on Recommended Preparation deleted.
Revised Course Description:
Course provides students with a basic understanding of grape and vine production in the San Joaquin Valley. Content will include cultural practices in wine, table and raisin production pruning and trellising, disease and pest control, and marketing strategies.

SOCIAL SCIENCE

SOCS 036
Introduction to Aging (page 300)
3 Lecture/discussion hours per week-3 units
Modification: Course number changed from SOCS 136 to SOC 036 to comply with the COS Numbering System indicating UC transfer.