# Chapter 6 – Course Descriptions

**COURSE FAMILIES:** Students are limited to a total of four enrollments within a family.

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<thead>
<tr>
<th>FAMILY:</th>
<th>COURSES INCLUDED:</th>
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<tbody>
<tr>
<td><strong>ART FAMILY</strong></td>
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<tr>
<td>Visual Art Fundamentals</td>
<td>ART 12 Form, Design and Color</td>
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<td>ART 13 Inter. Form, Design and Color</td>
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<td>ART 15 Three Dimensional Design</td>
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<td>ART 110 Mixed Media: Works on Paper</td>
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<td>Drawing</td>
<td>ART 16 Pencil Rendering</td>
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<td>ART 17 Shades/Shadows/Perspective</td>
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<td>ART 21A Beginning Freehand Drawing</td>
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<td>ART 21B Intermediate Freehand Drawing</td>
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<tr>
<td>Figure Drawing</td>
<td>ART 31A Beginning Figure Drawing</td>
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<td>ART 31B Intermediate Figure Drawing</td>
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<td>ART 31C Adv. Inter. Figure Drawing</td>
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<td>ART 31D Advanced Figure Drawing</td>
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<tr>
<td>Painting</td>
<td>ART 29A Beginning Painting</td>
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<td>ART 29B Intermediate Painting</td>
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<td>ART 29C Adv. Intermediate Painting</td>
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<td>ART 29D Advanced Painting</td>
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<td>ART 122 Portrait Painting</td>
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<td>ART 123 Landscape Painting</td>
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<td>ART 124 Painting</td>
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<td>Water Media</td>
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<td>ART 26A Beginning Watercolor</td>
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<td>ART 26B Intermediate Watercolor</td>
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<td>ART 26C Adv. Intermediate Watercolor</td>
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<td>ART 26D Advanced Watercolor</td>
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<td>ART 125 Introduction to Watercolor</td>
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<td>ART 126 Nature in Watercolor</td>
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<tr>
<td>Printmaking</td>
<td>ART 50A Beginning Printmaking</td>
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<td>ART 50B Intermediate Printmaking</td>
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<td>ART 50C Advanced Printmaking</td>
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<tr>
<td>Sculpture</td>
<td>ART 55A Beginning Sculpture</td>
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<td>ART 55B Intermediate Sculpture</td>
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<td>ART 55C Advanced Sculpture</td>
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<tr>
<td>Ceramics</td>
<td>ART 35A Beginning Ceramics</td>
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<td>ART 35B Intermediate Ceramics</td>
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<td>ART 37 Sculptural Ceramics</td>
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<td>Glass</td>
<td>ART 45 Beginning Glass</td>
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<td>ART 46 Glass Blowing</td>
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<td>ART 57 Sculptural Glass</td>
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<td>Darkroom Photography</td>
<td>ART 60A Beg. Darkroom Photography</td>
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<td>ART 60B Inter. Darkroom Photography</td>
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<td>ART 60C Adv. Int. Darkroom Photography</td>
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<td>ART 60D Adv. Darkroom Photography</td>
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<tr>
<td>Digital Photography</td>
<td>ART 70A Beginning Digital Photography</td>
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<td>ART 70B Int. Digital Photography</td>
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<td>ART 70C Adv. Int. Digital Photography</td>
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<td>ART 70D Advanced Digital Photography</td>
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<tr>
<td>Graphic Design</td>
<td>ART 80A Graphic Design</td>
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<td>ART 80B Intermediate Graphic Design</td>
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<td>ART 121 Illustration</td>
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<tr>
<th>FAMILY:</th>
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<tr>
<td><strong>DANCE FAMILY</strong></td>
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<tr>
<td>Modern Dance</td>
<td>DAN 20A Beginning Modern Dance</td>
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<td>DAN 20B Intermediate Modern Dance</td>
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<td>DAN 20C Adv. Int. Modern Dance</td>
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<td>DAN 20D Advanced Modern Dance</td>
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<tr>
<td>Jazz Dance</td>
<td>DAN 40A Beginning Jazz Dance</td>
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<td>DAN 40B Intermediate Jazz Dance</td>
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<td>DAN 40C Adv. Intermediate Jazz Dance</td>
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<td>DAN 40D Advanced Jazz Dance</td>
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<td>Ballet</td>
<td>DAN 30A Beginning Ballet</td>
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<td>DAN 30B Intermediate Ballet</td>
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<td>DAN 30C Advanced Intermediate Ballet</td>
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<td>DAN 30D Adv. Ballet Pointe &amp; Partnering</td>
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<td>Choreography</td>
<td>DAN 10 Dance Combinations</td>
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<td>DAN 15 Fundamentals of Choreography</td>
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<td>DAN 16 Inter. Choreog/Dance Analysis</td>
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<td>DAN 17 Adv. Choreog/Dance Analysis</td>
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<tr>
<td>Tap</td>
<td>DAN 50A Beginning Tap Dance</td>
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<tr>
<th>FAMILY:</th>
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<tr>
<td><strong>MUSIC FAMILY</strong></td>
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<tr>
<td>Piano</td>
<td>MUS 22A Beginning Piano</td>
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<td>MUS 22B Intermediate Piano</td>
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<td>MUS 22C Advanced Intermediate Piano</td>
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<td>MUS 22D Advanced Piano</td>
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<td>MUS 64 Beginning Keyboard Skills</td>
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<td>MUS 65 Intermediate Keyboard Skills</td>
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<td>MUS 66 Advanced Inter. Keyboard Skills</td>
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<td>MUS 67 Advanced Keyboard Skills</td>
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<td>Strings</td>
<td>MUS 21A Beginning Guitar</td>
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<td>MUS 21B Intermediate Guitar</td>
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<td>MUS 21C Advanced Intermediate Guitar</td>
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<td>MUS 21D Advanced Guitar</td>
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<td></td>
<td>MUS 25A Beginning Strings</td>
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<td>MUS 25B Intermediate Strings</td>
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<td></td>
<td>MUS 25C Adv. Intermediate Strings</td>
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<td>MUS 25D Advanced Strings</td>
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<td>Performance Analysis</td>
<td>MUS 61A Performance Analysis</td>
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<td>MUS 61B Inter. Performance Analysis</td>
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<td>MUS 61D Advanced Performance Analysis</td>
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<tr>
<td>Vocal Technique</td>
<td>MUS 29 Beginning Voice</td>
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<td>MUS 30 Intermediate Voice</td>
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<th>FAMILY:</th>
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<tr>
<td><strong>PHYSICAL EDUCATION FAMILY</strong></td>
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<tr>
<td>Fitness and Conditioning</td>
<td>PE 11 Fundamental Conditioning</td>
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<td>PE 12A Beg. Weight Training and Fitness</td>
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<td>PE 12B Int. Weight Training and Fitness</td>
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<td>PE 12C Adv. Weight Training and Fitness</td>
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<td>PE 15 Aerobic Dance</td>
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<td>PE 16 Aerobic Exercise</td>
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<td>PE 17 Yoga</td>
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*Physical Education Families continued on next page...*
### FAMILY: ENROLLMENTS FOR THE FAMILY

The course can also be taken up to the maximum number of units stated for that specific course; the subsequent enrollments will not count towards the limit of four enrollments for the Family.

### COURSES INCLUDED:

| Aquatics | PE 30A  | Beginning Swimming |
| PE 30B  | Intermediate Swimming |
| PE 30C  | Advanced Swimming |
| PE 31   | Aquatic Aerobics |
| PE 32   | Water Polo |
| PE 35   | Lifeguard Training |
| PE 37   | Springboard Diving |

| Racquet Sports | PE 51A  | Beginning Tennis |
| PE 51B  | Intermediate Tennis |
| PE 51C  | Advanced Tennis |

| Individual Sports | PE 60   | Self Defense |
| PE 62   | Golf |
| PE 69   | Football |
| PE 70A  | Beginning Volleyball |
| PE 70B  | Intermediate Volleyball |
| PE 70C  | Advanced Volleyball |
| PE 71   | Softball |
| PE 72   | Baseball |
| PE 73   | Track and Field Techniques |
| PE 74   | Soccer |
| PE 75   | Basketball |

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<th>THEATRE FAMILY</th>
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<td><strong>Acting</strong></td>
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<td>THTR 13</td>
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<td>THTR 16</td>
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<td>THTR 81</td>
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| Rehearsal and Performance | THTR 23  | Mainstage Production I |
| THTR 26  | Mainstage Production II |
| THTR 70  | Repertory Theatre |
| THTR 74  | Repertory Theatre Technical |
| THTR 153 | Community Drama |

| Musical Theatre | THTR 50  | Stage Production |
| THTR 51  | Stage Prod. – Choreography |
| THTR 52  | Stage Production – Music |

| Theatre Practicum | THTR 29  | Directing |
| THTR 41  | Theatre Laboratory |
| THTR 42  | Stage Production Lab |

| Theatre Studies | THTR 30  | Stagecraft |
| THTR 31  | Intro. to Theatrical Design |
| THTR 34  | Makeup |
| THTR 38  | Make-Up Lab |

*Variable unit course. When the student enrolls in this course (regardless of the unit value), it is counted as one of the four enrollments for the Family. The course can also be taken up to the maximum number of units stated for that specific course; the subsequent enrollments will not count towards the limit of four enrollments for the Family.

### ACCOUNTING (ACCT)

**ACCT 2  INTRODUCTION TO FINANCIAL ACCOUNTING – 4 Units**

Prerequisite: ENGL 190 or BUAD 166 with a grade of C or higher or English Placement Level 6 or higher; and MATH 240 or MATH 260 with a grade of C or higher or Math Placement Level 2 or higher.

Class Hours: 72 lecture total (when offered in the Distance Education format, hours total 216)

This course is the study of accounting as an information system, examining why it is important and how it is used by investors, creditors and others to make decisions. The course covers the accounting information system, including recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the financial statements, and financial statement analysis. It also includes issues related to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics. This course may be offered in a distance education format.

**ACCT 4  INTRODUCTION TO MANAGERIAL ACCOUNTING – 4 Units**

Prerequisite: ACCT 2 with a grade of C or higher

Advisory: MATH 101 with a grade of C or higher or Math Placement Level 3 or higher; and OAS 10 with a grade of C or higher or proficiency in creating, editing, formatting and printing spreadsheets using Excel.

Class Hours: 72 lecture total (when offered in the Distance Education format, hours total 216)

This course is the study of how managers use accounting information in decision-making, planning, directing and controlling operations. The course focuses on cost terms and concepts, cost behavior, cost structure and cost-volume-profit analysis. Topics include issues relating to cost systems, cost control, profit planning, and performance analysis in manufacturing and service environments.

**ACCT 101  BASIC ACCOUNTING I – 3 Units**

Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours total 162)

A beginning course based on the double-entry bookkeeping system with an emphasis on a procedural approach. Topics include: accrual, cash, and modified cash basis of accounting; the accounting cycle, transaction analysis (rules of debits and credits), journalizing, posting, worksheets, preparation of financial statements, adjusting, closing, and reversing entries; combination journal; petty cash; bank reconciliations; special journals, accounts receivable, accounts payable; and basic payroll procedures. The course culminates with the student keeping a set of books for a small service sole proprietorship for the last month of the fiscal year. This course is not transferable to a four-year college or university. This course may be offered in a distance education format.

**ACCT 102  BASIC ACCOUNTING II – 3 Units**

Prerequisite: ACCT 101 or ACCT 2 with a grade of C or higher

Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours total 162)

A continuation of ACCT 101 maintaining the procedural approach. Topics include: accounting for notes payable, notes receivable, inventories, fixed assets, partnerships, corporations, long-term debt, and cash flows. The course culminates with the student keeping a manual set of books for a small merchandising partnership for the last month of the fiscal year. This course is not transferable to a four-year college or university. This course may be offered in a distance education format.

**ACCT 103  PC ACCOUNTING – 2 Units**

Prerequisite: ACCT 101 or ACCT 2 with a grade of C or higher

Advisory: Ability to type 25 wpm strongly recommended

Note: Students must have access to a full version of Microsoft Excel as assignments are submitted using Excel

Class Hours: 18 lecture/54 lab total (when offered in the Distance Education format, hours total 108)
This course emphasizes the major areas of a computerized accounting system and provides the student with hands-on opportunity to determine procedures, analyze transactions, enter data and print reports related to the general ledger, depreciation, accounts receivable, accounts payable, payroll, financial statements, financial statement analysis and inventory control. This course may be offered in a distance education format.

**ACCT 104 PAYROLL ACCOUNTING – 2 Units**  
**Prerequisite:** ACCT 101 or ACCT 2 with a grade of C or higher; and BUAD 106 or Math Placement Level 3 or higher  
**Advisory:** OAS 64 with a grade of C or higher  
**Class Hours:** 27 lecture/27 lab total (when offered in the Distance Education format, hours will total 108)

Payroll Accounting emphasizes the methods of computing wages and salaries, the methods of keeping records, and the preparation of government reports. This course is designed to provide training in the complexities of payroll accounting for vocational purposes. This course may be offered in a distance education format.

**ACCT 194 INCOME TAX – 3 Units**  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

A basic course in income tax law intended to acquaint students with provisions of State and Federal Income Tax Law. It is designed for individuals or the small business owner wanting to become better acquainted with the handling and processing of income tax returns and recent tax laws and developments. This course may be offered in a distance education format.

**ADAPTIVE STUDIES (ADAP)**

**ADAP 100 COLLEGE SUCCESS FOR STUDENTS WITH DISABILITIES – 3 Units (formerly SPED 100)**  
**Grading:** Pass/No Pass Option  
**Advisory:** English Placement Level 2 or higher  
**Class Hours:** 54 lecture total

Introduction and practice of college study skills and techniques to enhance student success. Emphasis of this course will be on self-assessment for the student who has a disability, as well as information dissemination. Topics to be discussed will include study skills, college support services and programs, disability awareness, personal goals, the college experience, and career exploration. Discussion will also include legal aspects of disability.

**ADAP 102 ORIENTATION TO COLLEGE – 1 Unit**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 18 lecture total

An orientation to college that is tailored to the unique needs of students with disabilities. Introduction of educational programs, student services, and learning resources, along with full orientation to Disabled Students Programs and Services is covered. The laws and policies guiding the inclusion of students with disabilities in post-secondary education will be covered. In the one-unit format, students will complete formal educational plans and explore options for transfer education or job placement. This course may be repeated in compliance with Title 5 regulations.

**ADAP 200 PREPARATION FOR COLLEGE – 3 Units**  
**Grading:** Pass/No Pass Option  
**Advisory:** English Placement Level 2 or higher  
**Class Hours:** 36 lecture/54 lab total

Introduction and orientation to college including completion of all applications and forms, thorough review of college catalog, college services, and student rights and responsibilities. Emphasis of this course will be on self-assessment for the student who has a disability including learning styles, personal strengths and weaknesses, and goal-setting. Additional topics to be discussed will include legal aspects of disability in college and work settings, reasonable accommodations and strategies for success, disability awareness, and college visitation. This course may be repeated in compliance with Title 5 regulations.

**ADAP 210 CAREER PLANNING AND DEVELOPMENT – 1 Unit**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 18 lecture total

This course is designed as a career development and planning option for transitioning students who have disabilities. The content of the course is designed to assist students in the processes of 1) Finding a career that coincides with their individual interests and talents, 2) Matching personality assets to career characteristics, 3) Training in the researching of career choices and employment opportunities, 4) Matching vocational skills to career choices, 5) Developing and initiating an education/career plan consisting of goals and options, 6) Identifying educational opportunities available to attain career goals, 7) Identifying the impact of paid work upon SSI and SSDI.

**ADAP 253 ADAPTED MICROCOMPUTER KEYBOARDING – 1 Unit**  
(Formerly OAS 254, MIS 251, MIS 251AB, BUSI 251AB)  
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lab total

A personal-use individualized course in keyboarding designed to meet the needs of students with disabilities. Interested students must be interviewed by a DSPS counselor and/or the instructor to determine if the course is appropriate for the student's abilities and interests. This course is designed to provide the intensive drill necessary to master the alphabetic keys as well as numbers and symbols of the microcomputer keyboard. A beginning class intended for students needing a computer terminal keyboarding skill who have had no previous typing experience. Students will be required to access software and key in data. Includes speed and accuracy development. This course may introduce document production if keyboard is mastered by touch. This class does not meet the requirement of Keyboarding I (Beginning Typing) for an Associate in Arts degree or certificate. This course may be repeated in compliance with Title 5 regulations.

**ADAP 254 ADAPTED COMPUTER SKILLS – 1 Unit**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lab total

Adapted Computer Skills is recommended for students requiring remedial instruction in using computers whether through standard platforms or assistive technology. Skills covered include the use of email, Internet access, and the use of MS Office software to apply in personal and academic interactions. This course may be repeated in compliance with Title 5 regulations.

**ADAP 255 HUMAN AWARENESS AND LIFE SKILLS – 2 Units**  
(Formerly SPED 255)  
**Grading:** Pass/No Pass Option  
**Class Hours:** 27 lecture/27 lab total

This course is being provided as a more focused curricular offering in interpersonal, sexuality, and life skills for students with disabilities. The aim of this course is to prepare students to tackle the rights as well as the responsibilities of life and to assist individuals to achieve an interdependent balance that is essential in order to enjoy a meaningful quality of life. The course will cover several related areas of the domestic domain 1) Self-awareness/self-esteem, 2) Health, hygiene, and nutrition, 3) personal and financial self-protection and 4) Relationships. This course may be repeated in compliance with Title 5 regulations.

**ADAP 256 READING AND WRITING FOR LIFE SKILLS – 2 Units**  
(Formerly SPED 256)  
**Grading:** Pass/No Pass Option  
**Class Hours:** 27 lecture/27 lab total

This course is constructed to help students with disabilities and/or remedial level skills enhance reading and writing for vocational or academic tasks. Instruction will include word attack strategies, vocabulary development, word usage, basic writing conventions, sentence writing, paragraph writing, critical thinking opportunities, and interpretive comprehension. Materials will be tailored to student's individual skill level. This course may be repeated in compliance with Title 5 regulations.
ADAP 258 MATHEMATICS FOR LIFE SKILLS – 2 Units
(formerly SPED 258)
Grading: Pass/No Pass Option
Class Hours: 27 lecture/27 lab total
This course is constructed to help students with disabilities and/or remedial level skills enhance basic mathematics skills for vocational or academic tasks. Progressive, individualized instruction provided in basic arithmetic computation of whole numbers, fractions, mixed numbers, and decimals, in understanding uses of ratios, percents and proportions; in word problem decoding, and in measurement and basic geometric concepts. This course may be repeated in compliance with Title 5 regulations.

ADAP 297 SPECIAL TOPICS IN SPECIAL EDUCATION – 5-2.0 Units (formerly SPED 297)
Grading: Pass/No Pass Option
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with special education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. This course may be repeated in compliance with Title 5 regulations.

ADAP 298 SPECIAL TOPICS IN SPECIAL EDUCATION – 0.5-2.0 Units (formerly SPED 298)
Grading: Pass/No Pass Option
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics dealing with education and disabilities such as the use of assistive technologies, and methods of effective learning for specific types of impairments. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. This course may be repeated in compliance with Title 5 regulations.

ADMINISTRATION OF JUSTICE (ADJU)

ADJU 10 INTRODUCTION TO ADMINISTRATION OF JUSTICE – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The history and philosophy of administration of justice in America. Recapitulation of the system, identifying the various sub-systems, role expectations, and their inter-relationships; theories of crime, punishment, and rehabilitation ethics, education and the training for professionalism in the system. This course may be offered in a distance education format. Required for Administration of Justice majors.

ADJU 11 TRAFFIC CONTROL AND INVESTIGATION – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
A study of the vehicle code of the State of California as it pertains to Law Enforcement Officers and discussions of leading court cases. Covers Vehicle Code definitions, organization of the D.M.V. and C.H.P., registration, licensing, and Rules of the Road covering all moving vehicle violations, parking, pedestrian and equipment violations. Also, a study of the principles and practices of accident investigation, including selective enforcement procedures and data use, hit-and-run accidents, determination of speed from skid marks.

ADJU 15 CONCEPTS OF CRIMINAL LAW – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
This course offers an analysis of the doctrines of criminal liability in the United States and the classification of crimes against persons, property, morals, and public welfare. Special emphasis is placed on the classification of crime, the general elements of crime, the definitions of common and statutory law and the nature of acceptable evidence. This course utilizes case law and case studies to introduce students to criminal law. The completion of this course offers a foundation upon which upper-division criminal justice courses will build. The course will also include some limited discussion of prosecution and defense decision making, criminal culpability, and defenses to crimes.

ADJU 16 LEGAL ASPECTS OF EVIDENCE – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
Origin, development and philosophy of evidence; kinds and degrees of evidence, and rules governing admissibility; judicial decisions interpreting individual rights, search and seizure, the case study approach, privileged communication and witness competency. Required for Administration of Justice majors.

ADJU 17 PRINCIPLES AND PROCEDURES OF THE JUSTICE SYSTEM – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
A study of California and federal courts systems, detailed analysis of all aspects of the criminal justice system, especially identifying functions and relationships between the various sub-systems procedures from incident to final disposition; function of constitutional, federal, state, and civil law as it applies to and affects criminal justice. Required for Administration of Justice majors.

ADJU 18 COMMUNITY RELATIONS – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the complex, dynamic relationships between communities and the justice system in addressing crime and conflict with emphasis on the challenges and prospects of administering justice within a diverse, multicultural population and the roles played by race, ethnicity, gender, religion, sexual orientation, age, social class, culture, and justice professionals in shaping relationships within the justice system. Special topics include crime prevention, restorative justice, and conflict resolution and pure justice. Required for Administration of Justice majors. This course may be offered in a distance education format.

ADJU 20 PRINCIPLES OF INVESTIGATION – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
The study of basic principles of all types of investigation utilized in the justice system. Coverage will include human aspects in dealing with the public, specific knowledge necessary for handling crime scenes; interviews, evidence, surveillance, follow-up, technical resources, ethical issues in investigations and case preparation. Required for Administration of Justice majors.

ADJU 21 POLICE FIELD OPERATIONS – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
Exploration of theories, philosophies, and concepts related to the role expectations of the line enforcement officer. Emphasis is placed upon the patrol, traffic, and public service responsibilities and their relationship to the Administration of Justice System.

ADJU 22 JUVENILE PROCEDURES – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The organization function and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; and juvenile status and court procedures. This course may be offered in a distance education format.

ADJU 23 CAREER PLANNING FOR ADMINISTRATION OF JUSTICE – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
Career Planning for Administration of Justice is designed to acquaint students with current employment techniques and standards in multiple careers.
areas of the Administration of Justice field. Students will be exposed to multi-agency recruiting, testing and hiring practices. Students will learn to identify personal problematic areas regarding these practices and will be instructed as to how to seek out and obtain possible solutions to these problems.

ADJU 24 MULTI-CULTURAL ISSUES IN LAW ENFORCEMENT – 3 Units
Grading: Pass/No Pass Option
Note: Required field trip
Class Hours: 54 lecture total
This class identifies cultural diversity issues related to law enforcement. Specific areas such as history, current make-up, value of diversity, recognition and handling are discussed. Law enforcement issues relative to sexual harassment, victimology and crisis intervention are covered. Course satisfies P.O.S.T. Basic Academy Part 1 curriculum requirements.

ADJU 25 SUBSTANTIVE LAW – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
An in-depth study of the substantive laws commonly encountered by the municipal, county, or state police officer or investigator or other criminal justice employee. The scope of the course includes misdemeanor and felony violations of the criminal statutes.

ADJU 26 COURTROOM TESTIMONY & REPORT WRITING – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher or English Placement Level 6 or higher
Class Hours: 54 lecture total
Provides practical instruction and experience in the proper techniques of report writing and presentation of courtroom evidence. Major emphasis will include the correct writing process, spelling, main elements of a report, report content as well as important aspects of courtroom testimony. Required for Administration of Justice majors.

ADJU 30 WILDLIFE LAW ENFORCEMENT - 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
Students will develop an understanding of the practice of wildlife enforcement. Students will analyze various wildlife enforcement situations and learn to apply management techniques to properly and safely utilize our wildlife populations.

ADJU 40 INTRODUCTION TO CORRECTIONS – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will provide a history of and critical analysis of punishment, the various types of punishment, alternatives to punishment, and the impact of punishment on the criminal justice system, corrections, a critical examination of the types of correctional institutions and the clients housed in each institution, and an examination of contemporary correctional issues. This course may be offered in a distance education format.

ADJU 41 FUNDAMENTALS OF CRIME AND DELINQUENCY – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introduction to major types of criminal behavior, roles and careers of offenders, factors which contribute to the production of criminality or delinquency; methods used in dealing with violators in the justice system; the changing roles of police, courts, and aftercare process of sentence, probation, prisons, and parole; changes of the law in crime control and treatment processes. This course may be offered in a distance education format.

ADJU 42 INTERVIEWING AND COUNSELING – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
Introduction to approaches of behavior modification through interviewing and counseling. An overview of the techniques available to entry-level practitioners in corrections, counseling and interviewing. Creates an awareness of advanced methods utilized by professional counselors. Traces the development of positive relationships between the client and corrections personnel.

ADJU 45 CRIMINAL STREET GANGS – 3 Units
Class Hours: 54 lecture total
This course will explore historical developments, origins, philosophy and current trends and activities in criminal street gangs within California; explore areas of violence, recruitment, drug use, graffiti and attire; emphasis placed on organization within gangs and racial backgrounds including types of solutions in the criminal justice system used to combat street gangs.

ADJU 46 NARCOTIC AND DRUG ABUSE – 3 Units
Class Hours: 54 lecture total
This course will explore the Administration of Justice system and the development of drug policy and drug problems. This will include drug identification, drug user recognition, drug effects, narcotic enforcement, drug prosecution, and drug treatment, rehabilitation and education.

ADJU 94 ADMIN. OF JUSTICE WORKSITE LEARNING – 1-8 Units
Grading: Pass/No Pass Option
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksites Learning Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

ADJU 100 P.C. 832 ARREST COURSE – 2 Units
Grading: Pass/No Pass Option
Notes:
1. This course does not include P.C. 832 Firearms Training. Students wishing to receive such training need to concurrently enroll in ADJU 102.
2. Students taking this course may be required to submit fingerprint card to DOJ and pay a substantial fee for a background check.
3. Instructors will explain requirements at first class session.
4. The ADJU 100 course requires the use of POST workbooks which will cost the student approximately $100.
5. If you intend to continue in the POST basic academy Modular format this course is not required. You should enroll directly in ADJU 131 Regular Basic Course Modular Format Level III Academy.
Class Hours: 40 lecture total
Designed to satisfy the curriculum standards of the Commission on Peace Officer Standards and Training as required by Penal Code Section 832 for peace officers; includes laws of arrest, search and seizure, methods of arrest, and discretionary decision-making, mandatory for all police officers who do not possess a basic certificate awarded by the Commission on Peace Officer Standards and Training.
ADJU 102 P.C. 832 FIREARMS – .5 Unit (formerly ADJU 110)
Grading: Pass/No Pass Option
Limitation on Enrollment: Student must be at least 18 years of age to register for this course. Student will be required to submit a Live Scan report to the DOJ (at the student’s expense) to verify eligibility to possess/carry a firearm. The results of the Live Scan must be presented to the instructor the first day of class.
Corequisite: ADJU 100 or previous completion of ADJU 100 with a grade of C or higher.
Note: Students are required to provide their own ammunition for the range.
Class Hours: 27 lab total
Course meets curriculum and competency objectives for the firearms portion of the Commission on Peace Officer Standards and Training (P.O.S.T.) P.C. 832 training standard. Students will receive training on use and safety of firearms. They will also be required to fire a handgun and meet an accuracy standard established by P.O.S.T.

ADJU 106 SEXUAL ASSAULT AND DOMESTIC VIOLENCE EDUCATION & TRAINING – 4 Units
Grading: Pass/No Pass Option
Class Hours: 72 lecture total
This course covers the history, causes and dynamics of domestic violence and sexual assault. It will also cover existing laws and regulation in California with regards to sexual assault and domestic violence. Incident impact on individuals, family structure and the community will be discussed. The course is specifically designed to provide training to those who may become involved in crisis intervention and sexual assault and domestic violence victim advocacy, as well as those pursuing a career in law enforcement, education or social services.

AG – GENERAL AGRICULTURE (AG)

AG 1 CAREER PLANNING FOR AGRICULTURE – 2 Units
(formerly ENVR 1)
Grading: Pass/No Pass Option
Class Hours: 36 lecture total
Career opportunities and requirements in Agriculture, Agriculture Business, Equine Science, Environmental Horticulture and Veterinary Technology will be examined. Students will learn how to apply for jobs. Traits of highly successful people will be explored by formal presentation and interactive assignments. Environmental awareness and interrelationships with career success will be covered.

AG 6 CAREER PLACEMENT – AG AND NATURAL RESOURCES – 1 Unit (formerly AGRI 6)
Grading: Pass/No Pass Option
Note: Designed for students concurrently completing or who have completed the core course requirements in agriculture, horticulture, and natural resources majors. This course may require a multi-day, overnight field trip to survey the industry.
Class Hours: 18 lecture total
This class is designed to give students an overview of the California agriculture, horticulture, and natural resources industry and assist in obtaining the best possible employment during the summer and upon graduation. Students will learn interview techniques, will develop an employment portfolio, and will learn how to apply for jobs. This class is required for all agriculture, horticulture, and natural resources majors.

AG 9A AGRICULTURE AND NATURAL RESOURCES LEADERSHIP I – 1 Unit (formerly AG 9, ENVR 9)
Grading: Pass/No Pass Option
Note: Required field trips
Class Hours: 9 lecture/27 lab total
The course is designed to develop leadership qualities in students. “Hands-on” techniques will be used to facilitate problem solving, cooperative work ethics, developing initiative, managing and organizing information, flexible thinking and effective questioning. Practical experience in conducting business as a group will be gained by participation.

AG 9B AGRICULTURE AND NATURAL RESOURCES LEADERSHIP II – 1 Unit
Grading: Pass/No Pass Option
Note: Required field trips
Class Hours: 9 lecture/27 lab total
The course is designed to develop leadership qualities in students. Students will learn group dynamics and problem solving when working in committees. Event organizing, planning and follow up will be emphasized. “Hands-on” activities will emphasize these leadership development activities.

AG 9C AGRICULTURE AND NATURAL RESOURCES LEADERSHIP III – 1 Unit
Grading: Pass/No Pass Option
Note: Required field trips
Class Hours: 9 lecture/27 lab total
The course is designed to develop leadership qualities in students especially as it relates to understanding personality types. Students will develop public speaking skills for prepared and extemporaneous topics and will analyze current trends, regulations and policies around agriculture and natural resource topics.

AG 9D AGRICULTURE AND NATURAL RESOURCES LEADERSHIP IV – 1 Unit
Grading: Pass/No Pass Option
Note: Required field trips
Class Hours: 9 lecture/27 lab total
The course is designed to develop leadership qualities in students. Students will develop habits of successful people. Work with community and industry member’s activities and events. Participate in leadership building skills, such as public speaking, job interviews and debate teams.

AG 58 STUDENT ENTERPRISE PROJECTS – 1-4 Units
(formerly AGRI 58)
Limitation on Enrollment: Student must have a sponsoring instructor from the Division.
Note: Student projects are subject to approval by a project evaluation committee.
Class Hours: 9 lecture/27-189 lab total
Selection and completion of a management/production enterprise project under faculty supervision. Each student will be required to develop a project plan, timeline, budget and contract with the sponsoring instructor.

AG 94 AG WORKSITE LEARNING – 1-8 Units
(formerly AGRI 94)
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on-the-job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.
### AG – AGRICULTURE BUSINESS (AGAB)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Grading</th>
<th>Prerequisite/Advisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAB 51</td>
<td>AGRICULTURE ACCOUNTING – 3 Units (formerly AGRI 51)</td>
<td>3</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
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<tr>
<td>AGAB 53</td>
<td>INTRODUCTION TO AGRICULTURE BUSINESS – 3 Units</td>
<td>3</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher, Math Placement</td>
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<td>Level 3 or higher, or ENGL 190 with a grade of C or</td>
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<td>higher, or Math Placement Level 3 or higher, or</td>
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<td>ENGL 190 with a grade of C or higher, or Math</td>
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<td>Placement Level 3 or higher, or ENGL 190 with a grade</td>
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<td>of C or higher, or Math Placement Level 3 or higher,</td>
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<td>or ENGL 190 with a grade of C or higher, or English</td>
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<td>Placement Level 3 or higher</td>
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### AG – ANIMAL SCIENCE (AGAS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Grading</th>
<th>Prerequisite/Advisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAS 10</td>
<td>LIVESTOCK SELECTION – 3 Units (formerly AGRI 10)</td>
<td>3</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
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<tr>
<td>AGAS 11</td>
<td>LIVESTOCK FEEDING AND NUTRITION – 3 Units (formerly AGRI 11)</td>
<td>3</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
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<tr>
<td>AGAS 15</td>
<td>ARTIFICIAL INSEMINATION – 1 Unit (formerly AGRI 15)</td>
<td>1</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
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<tr>
<td>AGAS 19</td>
<td>PRINCIPLES OF ANIMAL SCIENCE – 3 Units (formerly AGRI 19)</td>
<td>3</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
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</table>

### AG – ENVIRONMENTAL HORTICULTURE (AGEH)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Grading</th>
<th>Prerequisite/Advisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEH 10</td>
<td>PLANT IDENTIFICATION AND USAGE – 3 Units</td>
<td>3</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
</tr>
<tr>
<td>AGEH 22</td>
<td>NURSERY PRACTICES AND PLANT PROPAGATION – 2 Units (formerly HORT 22, HORT 32A)</td>
<td>2</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
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<tr>
<td>AGEH 23</td>
<td>NURSERY PRACTICES AND MANAGEMENT – 2 Units (formerly HORT 23, HORT 32B)</td>
<td>2</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
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<tr>
<td>AGEH 26</td>
<td>INTEGRATED PEST MANAGEMENT IN ENVIRONMENTAL HORTICULTURE – 3 Units (formerly HORT 26, AGRI 26)</td>
<td>3</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
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<tr>
<td>AGEH 30</td>
<td>LIVESTOCK PRODUCTION – 3 Units</td>
<td>3</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
</tr>
<tr>
<td>AGEH 31</td>
<td>LANDSCAPE IRRIGATION – 3 Units</td>
<td>3</td>
<td>Pass/No Pass Option</td>
<td>English Placement Level 6 or higher</td>
</tr>
</tbody>
</table>
AGEH 31.1 LANDSCAPE IRRIGATION – DESIGN – 1 Unit  
(formerly HORT 31.1)  
Grading: Pass/No Pass Option  
Advisory: MATH 100 with a grade of C or higher, or Math Placement  
Level 3 or higher; and ENGL 190 with a grade of C or higher, or  
English Placement Level 6 or higher  
Class Hours: 12 lecture/18 lab total  
Modular delivery of course content of AGEH 31. This is a study of  
irrigation systems design, water hydraulics and plant/soil/water  
relationships. Emphasis will be placed on residential design as well  
as commercial design. Completion of AGEH 31.1, AGEH 31.2 and AGEH  
31.3 is the equivalent of AGEH 31. This course is required for all  
Environmental Horticulture majors.

AGEH 31.2 LANDSCAPE IRRIGATION – INSTALLATION – 1 Unit  
(formerly HORT 31.2)  
Grading: Pass/No Pass Option  
Advisory: MATH 100 with a grade of C or higher, or Math Placement  
Level 3 or higher; and ENGL 190 with a grade of C or higher, or  
English Placement Level 6 or higher  
Class Hours: 12 lecture/18 lab total  
Modular delivery of AGEH 31. This class covers the basics in reading  
blueprints, preparing a bill of materials and installing an irrigation  
system. Emphasis will be placed on residential installation but  
commercial installation will be covered. This course is required for all  
Environmental Horticulture majors. Completion of AGEH 31.1, AGEH  
31.2 and AGEH 31.3 is the equivalent to AGEH 31.

AGEH 31.3 LANDSCAPE IRRIGATION – TROUBLESHOOT AND  
SCHEDULE – 1 Unit  
(formerly HORT 31.3)  
Grading: Pass/No Pass Option  
Advisory: MATH 100 with a grade of C or higher, or Math Placement  
Level 3 or higher; and ENGL 190 with a grade of C or higher, or  
English Placement Level 6 or higher  
Class Hours: 12 lecture/18 lab total  
Modular delivery of AGEH 31. This is a study of irrigation system  
operation and scheduling. Techniques in the operation and  
maintenance and troubleshooting of irrigation systems will be  
presented. This course is required for all Environmental Horticulture  
majors. Completion of AGEH 31.1, AGEH 31.2 and AGEH 31.3 is the  
equivalent of AGEH 31.

AGEH 33 ENVIRONMENTAL HORTICULTURE – 3 Units  
(formerly HORT 33, AGRI 33)  
Grading: Pass/No Pass Option  
Class Hours: 54 lecture total (when offered in the Distance Education  
format, hours will total 162)  
Environmental horticulture provides students with an understanding  
of how various aspects of the environment relate to plant growth and  
how human horticultural practices can influence the environment.  
This course explains the basic principles of botany and horticulture.  
Topics include plant structure, growth, physiology, and reproduction;  
climate, soil, and ecology; plant problems, including pests, diseases and  
effects of pollution; plant genetics, human-manipulated plants, and the  
world food picture. This course is useful for plant scientists, horticulturists,  
and those seeking science credits. Required for first-year  
Environmental Horticulture Majors. This course may be offered in a  
distance-learning format.

AGEH 34 BEGINNING FLORAL DESIGN – FALL FLOWERS –  
2 Units (formerly HORT 34, HORT 34AB)  
Grading: Pass/No Pass Option  
Note: Students must provide those materials which are of continuing  
value outside of the classroom setting. This cost will be explained at  
the first class meeting.  
Class Hours: 18 lecture/54 lab total  
Course introduces the beginning floral design student to the  
principles and techniques of flower arranging. The subject matter includes a  
blend of art, science, business, and career in preparation for entering  
the floral industry and related areas. Fall flowers and fall/winter holiday  
arrangements will be emphasized.

AGEH 35 LANDSCAPE DESIGN - 3 Units  
(formerly HORT 35, AGRI 35)  
Grading: Pass/No Pass Option  
Prerequisite: AGEH 10 with a grade of C or higher, or AGNR 6 with a  
grade of C or higher  
Class Hours: 36 lecture/54 lab total  
This course is a requirement for all Environmental Horticulture majors.  
This course emphasizes the process leading to the development of the  
residential design. The incorporation of design principles i.e. unity,  
rhythm, repetition, balance, etc. and how the principles are used to  
create a functional and pleasing composition with plant material and  
other landscape elements will be stressed. Emphasis is on residential  
design, both rural and suburban.

AGEH 36 FLORAL DESIGN FOR WEDDINGS AND SPECIAL  
OCCASIONS – 2 Units (formerly HORT 36)  
Grading: Pass/No Pass Option  
Note: Students must provide those materials which are of continuing  
value outside of the classroom setting. This cost will be explained at  
the first class meeting.  
Class Hours: 18 lecture/54 lab total  
This course provides instruction in floristry skills pertaining to weddings  
and flowers to wear and carry. This course will provide the student  
with the skills necessary for higher entry-level jobs in commercial  
floristry. Some subjects to be covered in this course include bouquets,  
corsages, and body flowers, wedding and reception decoration,  
including altar designs, candelabra, cake and table centerpieces.

AGEH 38 LANDSCAPE AND TURF MANAGEMENT – 3 Units  
(formerly HORT 38, AGRI 38)  
Grading: Pass/No Pass Option  
Advisory: ENGL 190 with a grade of C or higher, or English Placement  
Level 6 or higher; and MATH 220 with a grade of C or higher, or Math  
Placement Level 1 or higher  
Class Hours: 36 lecture/54 lab total  
This is a required course for Environmental Horticulture majors. The  
installation of lawns, groundcovers, shrubs and trees will be covered.  
The practices of pruning, trimming, mowing, watering, fertilizing, and  
pesticide application as applied to landscape management of home,  
parks, highways, and how to estimate and bid in all areas of landscape  
management will also be covered.

AGEH 39 TROPICAL FLORAL DESIGN – 1.5 Units  
(formerly HORT 39)  
Grading: Pass/No Pass Option  
Note: Students must provide those materials which are of continuing  
value outside of the classroom setting. This cost will be explained at  
the first class meeting.  
Class Hours: 18 lecture/27 lab total  
This course covers all aspects of floral design as it relates to tropical  
flowers. Students will learn to make corsages, formal/linear design,  
leisure and party decorations from tropical flowers.

AGEH 40 INTERMEDIATE FLORAL DESIGN – 2 Units  
(formerly HORT 40, HORT 34CD)  
Prerequisite: AGEH 34 or AGEH 44 with a grade of C or higher  
Note: Students must provide those materials which are of continuing  
value outside of the classroom setting. This cost will be explained at  
the first class meeting.  
Class Hours: 18 lecture/54 lab total  
Instruction in floristry skills related to contemporary styles of design for  
al occasions, weddings, and sympathy work. The application of  
techniques for mass and line style designs including Flemish, Oriental,  
parallel, contemporary, free-style, vegetative, and interpretive will be  
addressed.

AGEH 41 SELECTION AND CARE OF BLOOMING AND  
TROPICAL PLANTS – 1.5 Units  
(formerly HORT 41, HORT 135, AGRI 135)  
Grading: Pass/No Pass Option  
Class Hours: 18 lecture/27 lab total  
Designed to prepare and upgrade skills of those planning to work with
tropical plants in nurseries and plant shops. Emphasis will be placed upon knowledge of plants and their care and use. During lab, students will be directed in practical work using various types of planters constructed in the industry. The class will include a thorough discussion of propagation techniques, pests and diseases common to houseplants.

**AGEH 44 BEGINNING FLORAL DESIGN – SPRING FLOWERS – 2 Units (formerly HORT 44)**

**Grading:** Pass/No Pass Option  
**Note:** Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.  
**Class Hours:** 18 lecture/54 lab total

Course introduces the beginning floral design student to the principles and techniques of flower arranging. The subject matter includes a blend of art, science, business, and career in preparation for entering the floral industry and related areas. Spring flowers and spring holiday arrangements will be emphasized.

**AGEH 46 SYMPATHY FLOWERS – 1 Unit (formerly HORT 46)**

**Grading:** Pass/No Pass Option  
**Advisory:** AGEH 34 with a grade of C or higher  
**Class Hours:** 13.5 lecture/13.5 lab total

This class will offer in-depth instruction on the specific floral materials and techniques used in sympathy designing. Servicing the order and customer service relating to funerals and memorials will be emphasized. Floral pieces specific to funerals and memorials will be practiced in class.

**AGEH 60 MASTER GARDENER TRAINING – 3 Units (formerly HORT 60)**

**Grading:** Pass/No Pass Option  
**Advisory:** ENGL 190 with a grade of C or higher or English Placement Level 6 or higher  
**Class Hours:** 54 lecture total

This is the training course for the Master Gardener Program, a community service organization designed to relay research based horticultural information to the home gardener. The Master Gardener program was developed by the University Cooperative Extension to train interested horticultural enthusiasts to assist local gardeners in diagnosing plant problems and to provide science based information for keeping home landscapes and the environment healthy. The University of California has agreed to let Shasta College use their training materials which are provided through this class. Topics covered in this course include pesticide use, IPM, weed identification and management, pruning, plant diseases, soils, fertilizers, growing vegetables, native plants, vermiculture, watering and many other plant related topics. This is a required course for anyone interested in obtaining a UC Extension certification as a Shasta College Master Gardener.

**AGEH 61 PLANT PROTECTION MATERIALS – 3 Units**

**Grading:** Pass/No Pass Option  
**Class Hours:** 162 total hours (Distance Education delivery format only)

Course will cover pesticide laws and regulations, risks, benefits and mode of action, safe and responsible use, toxicology, and environmental issues related to the use of all agricultural chemicals. Fertilizers, plant growth regulators, defoliants, antimicrobials and other new generation pesticides will be discussed. Sustainable practices will be emphasized and examples used to generate students ability to solve pest problems and formulate integrated pest/agrichemical management plans. This course may be offered in a distance education format.

**AGEH 71 ORGANIC GARDENING PRACTICES (SUMMER) – 1 Unit (formerly HORT 71)**

**Grading:** Pass/No Pass Option  
**Note:** This course is complementary to, but independent from AGEH 72 Organic Gardening Practices (Fall and Spring)  
**Class Hours:** 9 lecture/27 lab total

This course is an introduction to Organic Gardening. It includes summer crops, irrigation, pests and cultural practices for growing a summer garden. Students will be planting crops for the season and encouraged to start their own garden plot. Subject matter in this course is supplementary to AGEH 72, which addresses gardening practices for spring and fall seasons.

**AGEH 72 ORGANIC GARDENING PRACTICES (FALL AND SPRING) – 1 Unit (formerly HORT 72)**

**Grading:** Pass/No Pass Option  
**Note:** This course is complimentary to, but independent from AGEH 71 Organic Gardening Practices (Summer)  
**Class Hours:** 9 lecture/27 lab total

Course covers cool season organic vegetable growing practices for the home and market gardener. Includes fall vegetable cover crops and cultivating practices, early spring planting and season extending strategies. Students will be planting crops appropriate for the season. Since subject matter varies with each seasonal crop, this course is supplementary to AGEH 71, which addresses gardening practices for the summer season.

**AGEH 94 HORTICULTURE WORKSITE LEARNING – 1-8 Units (formerly HORT 94)**

**Limitation on Enrollment:** Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Courses.

**Class Hours:** 75 hours paid or 60 hours non-paid per unit

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

**AGEH 120 SELECTED TOPICS IN ENVIRONMENTAL HORTICULTURE: PRUNING – .5 Units (formerly HORT 120, HORT 128E, AGRI 128E)**

**Grading:** Pass/No Pass Option  
**Class Hours:** 9 lecture total

A basic course in pruning techniques of ornamental plants, and the specific categories of flower-bearing and fruit-bearing trees, shrubs, and vines. The focus of this short course is to teach the student why plants are pruned, when plants should be pruned and how plants are pruned.

**AGEH 122 SELECTED TOPICS IN ENVIRONMENTAL HORTICULTURE: PLANT PROPAGATION – 5 Unit (formerly HORT 122, HORT 128R, AGRI 128R)**

**Grading:** Pass/No Pass Option  
**Class Hours:** 9 lecture total

Course will cover propagation by seed, cuttings, layering, grafting and budding. Rootstock selection will also be covered.

**AGEH 125 MICRO-IRRIGATION AND LOW WATER USE LANDSCAPING – 1 Unit (formerly HORT 125, AGRI 125)**

**Grading:** Pass/No Pass Option  
**Class Hours:** 18 lecture total

Course will cover methods of reducing irrigation requirements of ornamental landscapes, including reducing evaporation, appropriate irrigation methods, and appropriate plants.

**AGEH 130 INTRODUCTION TO NATIVE PLANTS – 1 Unit (formerly HORT 130, AGRI 130)**

**Grading:** Pass/No Pass Option  
**Note:** Includes one local plant collection field trip.  
**Class Hours:** 18 lecture total

Covers the strategy of drought tolerant plants, as well as the identification, collection, and propagation of native and non-native plants used in the landscape.
large scale. Subject matter will include horse behavior, breeding, stable management, property ownership, pasture management, water, fly systems, barn plans, arena footing and much more.

AG – MECHANIZED AGRICULTURE (AGMA)

AGMA 42 FARM POWER AND MACHINERY – 3 Units
Class Hours: 27 lecture/81 lab total
This course covers basic skill-level operation and maintenance of agricultural equipment including tractors, tillage, planting and harvesting machinery. Safe operational practices, proper machine and implement inspection and set-up, and basic operational skills will be covered. Precision agricultural technology, equipment management and field layout will be discussed. The lab activities will include the operation of machinery in the field laboratory.

AG – NATURAL RESOURCES (AGNR)

AGNR 1 INTRODUCTION TO NATURAL RESOURCES – 3 Units
(formerly NR 1)
Grading: Pass/No Pass Option
Note: Required day field trips
Class Hours: 36 lecture/54 lab total
An introduction to the integrated management of forests, soil, watershed, fish, and wildlife in the context of protection and restoration of watersheds and ecosystems. An emphasis will be placed on natural resources careers, policy and law, tools, techniques and practices, and management philosophies of public and private lands. Basic biological and ecological processes will be introduced along with discussion of the scientific method and preparing reports.

AGNR 4 INTRODUCTION TO WILDLAND AND RANGE ECOLOGY – 3 Units
Grading: Pass/No Pass Option
Note: Required multi-day field trips
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 108 for the lecture portion of the class and an additional 54 hours of lab totaling 162 hours for this course)
Basic range management and improvement practices. Proper utilization of rangeland resources, management for sustainable human and environmental values, use by wild and domestic animals, historical and legal changes in rangeland management. Overview of multiple use principles. Maintenance and improvement of range plant communities, conserving biological diversity and environmental quality in rangelands. The lecture portion of this course may be offered in a distance education format.

AGNR 6 NATIVE PLANT IDENTIFICATION – 3 Units
(formerly NR 6)
Grading: Pass/No Pass Option
Note: Includes one optional overnight weekend field trip.
Class Hours: 36 lecture/54 lab total
The study of botanical characteristics, taxonomy, morphology, and community relationships of the major tree and shrub associations in California and Western United States. Includes discussion of commercial uses and geographic ranges of these plants.

AGNR 11 ENVIRONMENTAL ETHICS – 3 Units
(formerly ENVR 11, INTR 11)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the influence of cultural values on the
relationship of humans with each other and with plants, animals and the land. An important objective is to develop original and sustaining attitudes and guidelines which will enhance a healthy globe. Sources of western society’s historical and current attitudes toward nature as well as alternative cultural perspectives will be explored. Students will emerge from this class with a greater understanding of their individual moral responsibilities toward the environment. This course may be offered in a distance education format.

AGNR 12 ENVIRONMENTAL POLICY AND LAW – 2 Units
Grading: Pass/No Pass Option
Note: Required day field trips
Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)
This course will introduce students to various aspects of environmental laws, policy, and agencies responsible for management and regulation of our natural resources. Topics of the course will include origins and importance of environmental law, legal principals; property rights; international, federal, state, and local environmental legislation; and regulatory authorities. The course will include discussion of the Legislative and Regulatory history, and current implementation of the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). Students will gain an understanding of the interactions between federal, state, and local environmental regulations, and how they pertain to environmental compliance and protection, and enforcement for illegal activities. Examples of legislation and regulations to be covered will include aspects of the Federal Clean Water Act (CWA), California Water Code, National Pollution Discharge Elimination System (NPDES), Federal Endangered Species Act (ESA), California Irrigated Lands Program, Local Grading Ordinances, California Storm Water Program, California Streambed Alteration Agreements, and other pertinent federal, state, and local environmental laws. The lecture portion of this course may be offered in a distance education format.

AGNR 50 NATURAL RESOURCES MEASUREMENTS – 4 Units
(formally NR 50)
Grading: Pass/No Pass Option
Note: Several field trips to various locations will occur as feasible.
Class Hours: 36 lecture/108 lab total (when offered in the Distance Education format, hours will total 108 for the lecture portion of the class and an additional 108 hours of lab totaling 216 hours for this course)
This course will help students develop an understanding of the sampling methods and equipment used to inventory forest resources on Private, State, and Federal lands. Measurements of timber stand growth, quantity and quality, and other natural resources including water, range, and wildlife will also be covered. The lecture portion of this course may be offered in a distance education format.

AGNR 51 SILVICULTURE AND FIRE ECOLOGY – 2 Units
(formally NR 51)
Grading: Pass/No Pass Option
Note: Includes one optional overnight weekend field trip and required day trips
Class Hours: 18 lecture/54 lab total
Forestry practices and systems used to grow and manage trees and forests for the sustained production of timber products. Course will also cover a survey of fire ecology.

AGNR 52 COMPUTERS IN AGRICULTURE AND NATURAL RESOURCES – 3 Units
(formally ENVR 52, AGRI 52)
Grading: Pass/No Pass Option
Class Hours: 36 lecture/54 lab total
This course introduces students to basic computer applications in agriculture, horticulture, natural resources, and related Career Technical Education majors. Students will gain basic computer literacy skills while learning to use examples of industry-specific software. Others topics will include file management, data manipulation, and use of software such as Word, Excel, Access, and PowerPoint. Students will also be exposed to basic concepts and software related to Geographic Information Systems (GIS). This course is required for all agricultural, horticulture, and natural resources majors.

AGNR 53 FOREST PROTECTION AND HEALTH – 3.5 Units
(formally NR 53)
Grading: Pass/No Pass Option
Note: Several field trips to various locations will occur as feasible.
Class Hours: 27 lecture/108 lab total (when offered in the Distance Education format, hours will total 81 for the lecture portion of the class and an additional 108 hours of lab totaling 189 hours for this course)
This course will discuss the biotic and abiotic stress factors that influence forest resource values. Direct and indirect management practices in addition to silvicultural practices that maintain and enhance biotic balance, biological diversity, and ecosystem health and productivity will be covered. Also, issues related to fuels management and prescribed fire will be covered. The lecture portion of this course may be offered in a distance education format.

AGNR 55 INTRODUCTION TO FOREST OPERATIONS – 3 Units
(formally NR 55)
Grading: Pass/No Pass Option
Note: Several field trips to various locations will occur as feasible.
Class Hours: 36 lecture/54 lab total
Develop knowledge and skills to recognize the capabilities and limitations of timber harvesting equipment and systems operating in a broad range of forest resource management situations. After completing the course, students will be able to identify harvest systems that are best matched with the characteristics of the physical, environmental, economic, and social operating environments. Harvest process evaluations and decisions are aided with various forest engineering analysis and tools.

AGNR 60 ENVIRONMENTAL SCIENCE – 3 Units
(formally ENVR 60, NR 60)
Grading: Pass/No Pass Option
Advisory: Students who wish to add a lab component to this class should co-enroll in AGNR 61
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to the conservation or wise use of natural resources and incorporates discussions about the complex relationships of man to the environment. Students will learn about the diverse agencies that manage our resources along with their history and philosophies. Each of the major natural resources such as water, air, energy, forests, wildlife, agriculture, and soils will be covered and students will learn about the environmental policy and laws that govern use of these resources. An emphasis is placed on the practical components of Environmental Science as it relates to social and economic aspects of conservation. This course may be offered in a distance education format.

AGNR 61 ENVIRONMENTAL SCIENCE LABORATORY – 1 Unit
(formally ENVR 61)
Grading: Pass/No Pass Option
Corequisite: AGNR 60 or previous completion of AGNR 60 with a grade of C or higher
Note: May include several field trips
Class Hours: 54 lab total
A laboratory course designed to complement AGNR 60 and acquaint the students with some of the more common laboratory and field tests and procedures utilized in environmental science.

AGNR 64 WATERSHED MANAGEMENT AND ECOLOGY – 3 Units
(formally NR 64)
Grading: Pass/No Pass Option
Note: Field trips to various district facilities, federal, state, county, city, and private agencies will occur as feasible.
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 108 for the lecture portion of the class and an additional 54 hours of lab totaling 162 hours for this course)
This course addresses a variety of topics concerned with the quality and quantity of water resources and watershed management, ecology, and restoration. Emphasis will be on the State of California. Coverage will include the hydrologic cycle, water quality, water use and conservation, and watershed health and function. Sources, measurements, quality (pollution and treatment), usage, and
conservation of water will be addressed. Environmental impacts of dam construction and hydroplant operation will be discussed. Laboratory work will involve measurements and interpretations of data collected or distributed and watershed restoration project planning and implementation. Field trips to various facilities (federal, state, county, city, private agencies) and restoration/monitoring sites will occur as feasible. The lecture portion of this course may be offered in a distance education format.

AGNR 65 FOREST ECOLOGY – 3 Units (formerly NR 65, NR 165)
Grading: Pass/No Pass Option
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 108 for the lecture portion of the class and an additional 54 hours of lab totaling 162 hours for this course)
The forest community is used as a model to discuss ecological principles as they apply to forest management. Students will gain a better understanding of Biological Organization and community classification, biotic and abiotic environmental factors, population and community ecology, and the role of disturbance in forested ecosystems. In addition, biogeochemical cycling, forest succession, and the role of natural selection will be discussed. Students will be expected to apply scientific principles and critical thinking skills to all lab activities and research papers. The lecture portion of this course may be offered in a distance education format.

AGNR 66A WATERSHED RESTORATION PRACTICUM I – 1 Unit (formerly AGNR 66, NR 66)
Grading: Pass/No Pass Option
Class Hours: 9 lecture/27 lab total
This course will use the hydrologic watershed unit as the focus which will provide a hands-on approach to ecosystem management, erosion control, sediment control, and stream restoration. The course will emphasize how restoring resource values require an interdisciplinary scientific approach and community-wide participation to protect, enhance and restore.

AGNR 66B WATERSHED RESTORATION PRACTICUM II – 1 Unit
Grading: Pass/No Pass Option
Class Hours: 9 lecture/27 lab total
Students will determine best management practices for erosion and sediment control. Laws and requirements will be discussed along with the importance and methods for documenting endangered species and archaeological sites.

AGNR 69 BIRDS AND THEIR HABITAT – 2 Units (formerly NR 69)
Grading: Pass/No Pass Option
Note: Three eight-hour field trips will be a required part of this course.
Class Hours: 27 lecture/27 lab total
An introduction to the study of birds. Emphasis on the behavior, taxonomy, migration, orientation, flight, evolution, economic importance, and field identification of the birds. We will also study bird ecology and the role of birds in bio-diversity and ecosystems. Other topics covered are songs and calls, territory, courtship, nests and eggs, care of young, and the systems (reproductive, etc.) of birds.

AGNR 70 WILDLIFE CONSERVATION AND MANAGEMENT – 3 Units (formerly NR 70)
Grading: Pass/No Pass Option
Note: Includes several all-day field trips
Class Hours: 36 lecture/54 lab total
The study of plant and animal ecology in relation to principles of wildlife management. An emphasis will be placed on identification of common western birds and mammals, sexing and aging criteria, wildlife population dynamics, wildlife habitat management, and a review of trapping and marking techniques. Ecological concepts such as biotic communities, succession, limiting factors, and predator-prey relationships will also be covered.

AGNR 83 INTRODUCTION TO GLOBAL POSITIONING SYSTEMS (GPS) – 1 Unit (formerly NR 83)
Class Hours: 9 lecture/27 lab total
This course is an introduction to theory and practice of geopositioning (GPS). Course will cover principles of geopositioning, including satellite systems, triangulation, accuracy and the configuration and use of GPS field devices. Students will gain experience in the use of both recreational grade and mapping grade GPS equipment for field navigation and data collection. The application of GPS to various fields and industries will be covered, from natural resources and agriculture to construction and infrastructure management.

AGNR 94 NATURAL RESOURCES WORKSITE LEARNING – 1-8 Units (formerly NR 94)
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

AGRN 173 BEGINNING TAXIDERMY – 2 Units (formerly NR 173)
Grading: Pass/No Pass Option
Class Hours: 18 lecture/54 lab total
An introduction to taxidermy dealing with the taxidermy of birds. It will include collecting, materials and tools, preservatives, skinning, mounting and painting. Habitat materials and composition will be discussed and applied.

AGRN 174 INTERMEDIATE TAXIDERMY – 2 Units (formerly NR 174)
Grading: Pass/No Pass Option
Prerequisite: AGRN 173 with a grade of C or higher
Class Hours: 18 lecture/54 lab total
An introduction to taxidermy of small mammals, reptiles and fish. Advanced techniques in bird taxidermy are also presented. Instruction will include game laws, tools and materials, skinning, tanning, mounting and display. A variety of artificial habitats will be employed. Students will supply their own specimens.

AGRN 176 WILDLIFE OF NORTHERN CALIFORNIA – 1 Unit (formerly NR 176)
Grading: Pass/No Pass Option
Note: A weekend field trip to the Tulelake area will be required.
Class Hours: 9 lecture/27 lab total
Common species of wildlife found in Northern California will be observed and discussed. Habitat ecology and management along with regulatory and conservation issues will be covered in the class. Various identification tools, instructional aids, and other relevant materials will be reviewed and discussed.

AGPS 20 PLANT SCIENCE (AGPS)
AGPS 20 PLANT SCIENCE – 4 Units (formerly AGRI 20)
Grading: Pass/No Pass Option
Note: Field trips to local areas will be included.
Class Hours: 54 lecture/54 lab total
An introduction to the biological principles of plant growth and development. Ecosystem relationships will be covered with particular emphasis on succession, water cycle, mineral cycle, and energy flow. In addition to investigating modern production and marketing practices of agronomic crops, the impact of commercial crop production upon mankind and the environment will be considered.

AGPS 24 SOILS – 3 Units (formerly ENVR 24, AGRI 24)
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher; and one year of high school chemistry or equivalent.
Note: Class includes two Saturday field trips on classification, judging,
and conservation of soils. This class is required for all agriculture, natural resources, and horticulture majors.

Class Hours: 36 lecture/54 lab total

This class is an introductory course on the physical, chemical, and biological properties of soil as it relates to agriculture and natural resources. Ecosystem relationship of soil use and management is emphasized. The effects of drainage, tillage, and irrigation on land use are discussed.

AGPS 25 CALIFORNIA WATER – 3 Units (formerly AGRI 25)
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course is an interdisciplinary examination of California’s water use and management with a historical emphasis on the politics and conflict arising from water scarcity. Topics of water quality, water law, measurement of water, evaluation of irrigation methods and systems, and issues relating to water use will all be covered. This course may be offered in a distance education format.

AGPS 126 PESTICIDE TRAINING - .5 Unit (formerly AGRI 126, AGRI 126AD)
Grading: Pass/No Pass Option
Class Hours: 9 lecture total

This course is designed to meet the continuing education requirement for pesticide applicators and pest control advisors. The focus of the course is on methods and calculations necessary to apply pesticides safely, accurately and efficiently and to look at alternative techniques being used and developed for management of plant pests.

AG – SUSTAINABLE AGRICULTURE (AGSA)

AGSA 50 AGRICULTURE RESOURCE MANAGEMENT – 3 Units (formerly AGRI 50)
Grading: Pass/No Pass Option
Class Hours: 36 lecture/54 lab total

A unique non-traditional land management class based on “sustainable,” “regenerative,” or “holistic” principles and practices. The total course will focus around the use of a “model” for making land management decisions for public and private lands. This class is appropriate for managing ranches and farms or for anyone interested in sustainable land management.

AGSA 56 INTRODUCTION TO SUSTAINABLE AGRICULTURE AND FARM MANAGEMENT – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total

This course explains the organization and operation of sustainable farm and ranch businesses, identifies factors affecting profitability, and evaluates the business for sustainability, increased efficiency and profit. Budgeting, resources management and farm operation analysis are applied to the Farm lab. Includes an examination of case studies to connect sustainable agriculture principles to actual farming practices.

AG – VETERINARY SCIENCE (AGVETT)

AGVETT 16 VETERINARY PRACTICES – 2 Units (formerly AGRI 16)
Grading: Pass/No Pass Option
Class Hours: 18 lecture/54 lab total

An introduction to common veterinary practices, sanitation, and livestock disease endemic to Northern California. Special emphasis will be given to parasite control and preventive vaccination programs. Lab activities will include demonstrations and student participation in performing castration, worming, vaccinations, and animal handling and restraint procedures.

AG – VITICULTURE (AGVIT)

AGVIT 80 VINEYARD DESIGN AND CONSTRUCTION – 1 Unit (formerly HORT 80)
Grading: Pass/No Pass Option

A course is designed to give students a lab environment to practice basic American Sign Language vocabulary, finger spelling and grammatical structure. The student will gain the manual skills to engage in basic dialogue, visual cues and the receptive skills to understand general American Sign Language conversation. Topics include: American Sign Language as an independent language, the history of American Sign Language, the Deaf community and Deaf culture.

AGVIT 81 VINEYARD CARE – 1 Unit (formerly HORT 81)
Grading: Pass/No Pass Option
Class Hours: 9 lecture/27 lab total

This is an introductory hands-on course for the care and maintenance of grape vineyards. Pruning, thinning, irrigation, and other cultural practices will be discussed. Course covers both conventional and organic management methods. This course would benefit students interested in both commercial production and home vineyard care.

Agriculture (AGRI)

AGRICULTURE RESOURCE MANAGEMENT – 3 Units (formerly AGRI 50)
Grading: Pass/No Pass Option
Class Hours: 36 lecture/54 lab total

A unique non-traditional land management class based on “sustainable,” “regenerative,” or “holistic” principles and practices. The total course will focus around the use of a “model” for making land management decisions for public and private lands. This class is appropriate for managing ranches and farms or for anyone interested in sustainable land management.

INTRODUCTION TO SUSTAINABLE AGRICULTURE AND FARM MANAGEMENT – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total

This course explains the organization and operation of sustainable farm and ranch businesses, identifies factors affecting profitability, and evaluates the business for sustainability, increased efficiency and profit. Budgeting, resources management and farm operation analysis are applied to the Farm lab. Includes an examination of case studies to connect sustainable agriculture principles to actual farming practices.

VETERINARY PRACTICES – 2 Units (formerly AGRI 16)
Grading: Pass/No Pass Option
Class Hours: 18 lecture/54 lab total

An introduction to common veterinary practices, sanitation, and livestock disease endemic to Northern California. Special emphasis will be given to parasite control and preventive vaccination programs. Lab activities will include demonstrations and student participation in performing castration, worming, vaccinations, and animal handling and restraint procedures.

VINEYARD DESIGN AND CONSTRUCTION – 1 Unit (formerly HORT 80)
Grading: Pass/No Pass Option

A course is designed to give students a lab environment to practice basic American Sign Language vocabulary, finger spelling and grammatical structure. The student will gain the manual skills to engage in basic dialogue, visual cues and the receptive skills to understand general American Sign Language conversation. Topics include: American Sign Language as an independent language, the history of American Sign Language, the Deaf community and Deaf culture.

VINEYARD CARE – 1 Unit (formerly HORT 81)
Grading: Pass/No Pass Option
Class Hours: 9 lecture/27 lab total

This is an introductory hands-on course for the care and maintenance of grape vineyards. Pruning, thinning, irrigation, and other cultural practices will be discussed. Course covers both conventional and organic management methods. This course would benefit students interested in both commercial production and home vineyard care.

American Sign Language (ASL)

AMERICAN SIGN LANGUAGE 1 – 4 Units (formerly SL 90, SPED 93A)
Grading: Pass/No Pass Option
Corequisite: ASL 1L, or previous completion of ASL 1L with a grade of C or higher
Class Hours: 72 lecture total

Designed to introduce student to basic skills in American Sign Language vocabulary, finger spelling and grammatical structure. The student will gain the manual skills to engage in basic dialogue, visual cues and the receptive skills to understand general American Sign Language conversation. Topics include: American Sign Language as an independent language, the history of American Sign Language, the Deaf community and Deaf culture.

AMERICAN SIGN LANGUAGE 1 SKILL-BUILDING LAB – 1 Unit (formerly SL 91, SPED 95A)
Grading: Pass/No Pass Option
Corequisite: ASL 1 or previous completion of ASL 1 with a grade of C or higher
Class Hours: 54 lab total

This course is designed to give students a lab environment to practice basic American Sign Language skills. The course will review vocabulary, sentence structure and visual, non-manual behaviors from ASL 1 and give students a solid foundation in basic signing skills which will better prepare them for the next level of American Sign Language. The lab environment will provide visual structured activities. Most of class time will be non-verbal interactions.

AMERICAN SIGN LANGUAGE 2 – 4 Units (formerly SL 92, SPED 93B)
Grading: Pass/No Pass Option
Prerequisite: ASL 1 with a grade of C or higher
Corequisite: ASL 2L or previous completion of ASL 2L with a grade of C or higher
Class Hours: 72 lecture total

This course is a continuation of ASL 1 and is designed to increase vocabulary and fluency in receptive and expressive skills of American Sign Language students. Emphasis is on the structure of American Sign Language including lexical, morphemic and syntactical elements. The student will gain the manual skills to engage in descriptive, complex dialog and stories at a moderate skill level. Topics include American Sign Language contrast and comparisons to other languages, language development and acquisition, and societal and legal issues.

AMERICAN SIGN LANGUAGE 2 SKILL-BUILDING LAB – 1 Unit (formerly SL 93, SPED 95D)
Grading: Pass/No Pass Option
interpreting process, an overview of the NAD-RID Code of Professional
qualities and skills needed to interpret including topics such as the
through sign language at an average rate of speed and build
become interpreters. Students will be exposed to a variety of members
presentation. Students will study qualities and skills needed to
confidence in their use of the language, storytelling ability and
students to communicate with Deaf and Hard of Hearing individuals
Exposure to Deaf culture through class discussions and guest lecturers
this course will enable students to communicate with Deaf and Hard-of-Hearing individuals
hours total (when offered in the Distance Education
and there will be an emphasis on human development: society, family, education, and work. Students are made
of primates, introduction to living primates and
and explorations of how these adaptations respond to environmental
living, family structure, social organization and institutions, language,
level 5 or higher
Advisory: ENGL 1A with a grade of C or higher or English Placement
Grading: Pass/No Pass Option
ANTH 2 CULTURAL ANTHROPOLOGY – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education
format, hours will total 162)
An introductory course exploring the nature of culture as the human
adaptation to the natural world. It includes such topics as making a
living, family structure, social organization and institutions, language,
religion, art, and cultural change. This course may be offered in a
distance education format.
ANTH 5 HUMANITY, CULTURE, AND ECOLOGY – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education
format, hours will total 162)
An ecological perspective of cultures as adaptations to diverse habitats,
and explorations of how these adaptations respond to environmental
alterations. Emphasis will be placed on adaptive strategies and
challenges in contemporary societies. This course may be offered in a
distance education format.
ANTH 14 RELIGION, MYTH AND RITUAL – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education
format, hours will total 162)
A cross-cultural study of the forms and functions of religion, myth,
and ritual in contemporary and historical societies. Emphasis will be on
non-Western traditional groups and understanding their religious
beliefs in a culturally relative context. This course may be offered in a
distance education format.
ANTH 25 CULTURE AND HISTORY OF THE NORTH AMERICAN
INDIAN – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education
format, hours will total 162)
A course dealing with the history and culture of the North American
levels of organization. Human cadavers and/or mammalian
dissections are used as an integral component of the course. This
course is intended for nursing, kinesiology, physical therapy, radiologic
technology, respiratory therapy, dental hygiene, surgical technology,
physical therapy, and other allied health related majors.

ANTHROPOLOGY (ANTH)

ANTH 1 PHYSICAL ANTHROPOLOGY – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education
format, hours will total 162)
Topics include the theories of human origins and the evolution of life in
general; classification of primates, introduction to living primates and
primate behavior, genetics, population genetics, the fossil record, the
evolution of hominid behavior, the evolution of language, environment
and technology; hunting and the evolution of society; the evolution
and condition of modern humans. This course may be offered in a
distance education format.

ASL 3 AMERICAN SIGN LANGUAGE 3 – 4 Units
(formerly SL 94, SPED 93C)
Grading: Pass/No Pass Option
Prerequisite: ASL 2 with a grade of C or higher
Class Hours: 54 lecture/54 lab total
This course is intended for students who plan to use American Sign
Language in their daily lives. Success in this course will enable
students to communicate with Deaf and Hard-of-Hearing individuals
through sign language at an average rate of speed and build
confidence in their use of the language. Students will study basic
qualities and skills needed to interpret including topics such as the
interpreting process, an overview of the NAD-RID Code of Professional

ANATOMY (ANAT)

ANAT 1 HUMAN ANATOMY – 5 Units
Advisory: ENGL 190 with a grade of C or higher or English Placement
Prerequisite: ASL 1L with a grade of C or higher
Corequisite: ASL 2 or previous completion of ASL 2 with a grade of C
or higher
Class Hours: 54 lab total
This course is designed to give students a lab environment in which to
practice new vocabulary and structures learned in ASL 2, and will
review vocabulary, sentence structure and visual, non-manual
behaviors learned from ASL 2. Students will be involved in structured
class assignments in order to utilize signing skills and increase fluency
to a moderate rate in preparation for success in ASL 3.

ASL 4 AMERICAN SIGN LANGUAGE 4 – 4 Units
(formerly SL 96)
Grading: Pass/No Pass Option
Prerequisite: ASL 3 with a grade of C or higher
Class Hours: 54 lecture/54 lab total
This course is intended for students who plan to use American Sign
Language in their daily lives. Success in this course will enable
students to communicate with Deaf and Hard-of-Hearing individuals
through sign language at an average rate of speed and build
confidence in their use of the language, storytelling ability and
presentation. Students will study qualities and skills needed to
become interpreters. Students will be exposed to a variety of members
and activities in the Deaf community.

ASL 5 AMERICAN SIGN LANGUAGE 5: GRAMMAR – 4 Units
(formerly SL 7)
Prerequisite: ASL 4 with a grade of C or higher
Class Hours: 72 lecture total
This course focuses on American Sign Language grammar and
communication skills. ASL stories and literature are employed to give
students the opportunity to learn and practice the rules of Deaf culture
and the grammar of ASL. English grammar will be analyzed and the
differences between the two languages discussed.

ASL 80 DEAF CHALLENGES – 3 Units (formerly SL 80)
Class Hours: 54 lecture total (when offered in the Distance Education
format, hours will total 162)
This course covers four areas that have a large impact on people's
development: society, family, education, and work. Students are made
aware of the challenges deaf people face in these areas and how it
influences their lives. This course may be offered in a distance
education format.

ASL 81 EDUCATIONAL WORLD OF THE DEAF – 3 Units
(formerly SL 81)
Class Hours: 54 lecture total (when offered in the Distance Education
format, hours will total 162)
This course focuses on the education of the deaf population from
ancient times to the present. It addresses the cultural, physical and
psychological effects on the way deaf people learn. Topics such as
family relationships, cognitive development, and language acquisition
are addressed. This course may be offered in a distance education
format.
ARCH 4A BEGINNING FIELD ARCHAEOLOGY – 3 Units
Class Hours: 18 lecture/108 lab total

An introductory course in the practical application of archaeological principles and methods. Students will become familiar with the basic techniques of scientific archaeological excavation and site survey, mapping, photographing, data recording, cataloging and preservation of archaeological specimens.

ARCH 4B INTERMEDIATE FIELD ARCHAEOLOGY – 3 Units
Class Hours: 18 lecture/108 lab total

An intermediate course in the practical application of archaeological principles and methods that continues to build on the beginning course. Students will begin to take a part in the development and organization of scientific archaeological excavation projects. Students will learn additional excavation techniques, and learn to supervise field crews. Students will learn how to develop strategies for site reconnaissance and recording. Students will evaluate field records, and coordinate field catalogues.

ARCH 4C ADVANCED INTERMEDIATE FIELD ARCHAEOLOGY – 3 Units
Class Hours: 18 lecture/108 lab total

An advanced intermediate course in the practical application of archaeological principles and methods. Students learn advanced excavation techniques. Students learn additional methods of site mapping and recording. Students learn to map using a total station. Students are trained in soil sampling, and flotation techniques.

ARCH 4D ADVANCED FIELD ARCHAEOLOGY – 3 Units
Class Hours: 18 lecture/108 lab total

An advanced course in the practical application of archaeological principles and methods. Students will serve as assistant field director to the principal investigator in a local archaeological project. Students will learn to use archival facilities and evaluate documentary evidence of archaeological sites. Students will organize and execute aspects of field projects. Students will learn to interpret data gathered from field projects.

ARCH 5A BEGINNING ARCHAEOLOGY LABORATORY – 2 Units
Class Hours: 108 lab total

This is a course that emphasizes both the field aspects of archaeology coupled with post-field laboratory analysis and data interpretation. Method and theory of both field survey, excavation and recording and post-field data processing and curation and subsequent interpretation and explanation will be the class focus. Students will assume positions of crew chiefs, laboratory chiefs, mappers, camp organizers, etc. under the instructor's direction. Students will participate in preliminary site analysis, interpretive projects, and cultural material processing.

ARCH 5B INTERMEDIATE ARCHAEOLOGY LABORATORY – 2 Units
Prerequisite: ARCH 5A with a grade of C or higher
Class Hours: 108 lab total

An intermediate course in the practical application of archaeological laboratory methods. Students will learn beginning analyses of floral, faunal, and lithic materials collected during excavation of local sites. Students will learn artifact replication and conduct some experiments with artifact replicas.

ARCH 5C ADV. INTERMEDIATE ARCHAEOLOGY LABORATORY – 2 Units
Prerequisite: ARCH 5B with a grade of C or higher
Class Hours: 108 lab total

An advanced intermediate course in the application of archaeological laboratory methods. Students will formulate and carry out analyses of different archaeological materials using methods learned in earlier courses. Students will clean, catalogue, draw, and analyze artifacts recovered from local archaeological sites. Students will learn mapping applications that can be used to create spatial distribution of artifacts within archaeological sites.

ARCH 5D ADVANCED ARCHAEOLOGY LABORATORY – 2 Units
Prerequisite: ARCH 5C with a grade of C or higher
Class Hours: 108 lab total

An advanced course in the practical application of archaeological laboratory methods. Students will serve as laboratory assistant to the principal investigator in an archaeological field project. Students will complete a series of analyses that conform to professional archaeological standards. Students will oversee all activities in the laboratory including the cleaning, cataloging, drawing, and analysis of artifacts recovered from local archaeological sites.
Artefacts, Africa, India, Japan and China. Lectures are focused on the styles, motifs, symbols, rituals and traditions of the cultures by examining their crafts, drawings, sculpture, printmaking and paintings. This course is designed as a Humanities elective, recommended for Art Core Programs, and required for the Art History Concentration.

ART 6 HISTORY OF MODERN ART – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An in-depth study of contemporary visual expression, starting with pre-Impressionism and tracing the development of modernism through significant art movements in the 20th Century. This course may be offered in a distance education format.

ART 12 BEGINNING FORM, DESIGN AND COLOR – 3 Units
(Formerly ART 14A)
Grading: Pass/No Pass Option
Class Hours: 27 lecture/81 lab total
A fundamental course in two-dimensional design and color theory with the study of basic design elements as they apply to form. Two-dimensional design includes balance, directional movements, structural analysis, texture and unity. Color theory includes color schemes, psychological use of color, and value and intensity concepts. Required for the Art Core Program, and recommended for theatre, architecture and graphic design studies.

ART 13 INTERMEDIATE FORM, DESIGN AND COLOR – 3 Units
(Formerly ART 14B)
Grading: Pass/No Pass Option
Prerequisite: ART 12 with a grade of C or higher
Class Hours: 27 lecture/81 lab total
An interpretative course using two-dimensional form concepts and color theory with the application to three-dimensional form. The development of personal ideas and direction, the use of scale, surface effects, and new materials (synthetics). More concern is given to presentation, focus and consistency.

ART 15 THREE DIMENSIONAL DESIGN – 3 Units
(Formerly ART 15AB)
Note: Field trips may be required
Class Hours: 27 lecture/81 lab total
Introduction to the concepts, applications, and historical references related to three-dimensional design and spatial composition, including the study of the elements and organizing principles of design as they apply to three-dimensional space and form. Development of a visual vocabulary for creative expression through lecture presentations and use of appropriate materials for non-representational three-dimensional studio projects. This hands-on course provides students with the fundamental design and problem solving skills that apply to the fields of three-dimensional art, architecture, landscape, interior and industrial design.

ART 16 PENCIL RENDERING – 2 Units (Formerly ART 16AB)
Class Hours: 18 lecture/54 lab total
A fundamental course to prepare pictorial presentations applicable to advertising, architectural and industrial design, landscapes and illustrations using mechanical perspective and rendering media. Course designed for Architectural majors and recommended for Art majors.

ART 17 SHADES, SHADOWS, AND PERSPECTIVES - 3 Units
(Formerly ART 17AD)
Grading: Pass/No Pass Option
Class Hours: 27 lecture/81 lab total
A basic course in the use of various perspective techniques, using one and two point as well as grids. This course is designed for Art, Architecture, Graphic Design and Landscape Architecture students. It involves developing three-dimensional drawings of building structures, objects, etc., using perspective techniques and adding value rendering as well as shadows to create finished works.

ART 21A BEGINNING FREEHAND DRAWING – 3 Units
Grading: Pass/No Pass Option
Class Hours: 27 lecture/81 lab total
Introduction to principles, elements, and practices of drawing, employing a wide range of subject matter and drawing media. Focus is on perceptually based drawing, observational skills, technical abilities and creative responses to materials and subject matter.

ART 21B INTERMEDIATE FREEHAND DRAWING – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ART 21A with a grade of C or higher
Class Hours: 27 lecture/81 lab total
A developmental course designed to explore concepts, styles and creative expression related to intermediate level drawing, expanding upon the information, mediums and techniques learned in 21A. Greater emphasis is placed on personal idea development, consistency and presentation techniques and the utilization of a variety of mediums. More information provided regarding paper and its manufacture, drawing materials and the techniques of developing a professional portfolio.

ART 23 PEN, BRUSH AND INK – 2 Units (Formerly ART 23AB)
Class Hours: 18 lecture/54 lab total
Exploring 2D possibilities with a variety of pens, brushes, inks, and papers. Exercises are based in observation and imagination, with supporting foundational drawing practice. Exposure to artists using this medium, and to links between illustration and fine arts.

ART 26A BEGINNING WATERCOLOR – 3 Units
(Formerly ART 26, 26AB)
Grading: Pass/No Pass Option
Class Hours: 27 lecture/81 lab total
An introductory course in watercolor painting methods as they apply to the visual arts. Methods covered include wet wash, wash, stroke and glaze overlays, with emphasis on creative interpretation and expression.

ART 26B INTERMEDIATE WATERCOLOR – 3 Units
(Formerly ART 27, 26CD)
Grading: Pass/No Pass Option
Prerequisite: ART 26A with a grade of C or higher
Class Hours: 27 lecture/81 lab total
An intermediate course in watercolor painting with an emphasis on expansion of watercolor techniques as well as conceptual and technical development. Students will investigate non-traditional materials, explore methods of paint application (including subtractive and stencil methods) and further their artistic understanding and development through the consideration of contemporary trends in watercolor.

ART 26C ADVANCED INTERMEDIATE WATERCOLOR – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ART 26B with a grade of C or higher
Class Hours: 27 lecture/81 lab total
A course designed to expand upon the information and techniques learned in Intermediate Watercolor Painting. General attention will be given to personal idea development, consistency, presentation techniques and working with more independence. The student will be expected to increase the quality and number of paintings completed during the semester. The student will also learn to develop a professional portfolio and to communicate professionally.

ART 26D ADVANCED WATERCOLOR – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ART 26C with a grade of C or higher
Class Hours: 27 lecture/81 lab total
An advanced course in Watercolor. Students will explore ink painting, non-brush techniques, watercolor transfer as well as illustration techniques. Students will develop a portfolio which incorporates a variety of compositional schemes in expressive and non-objective imagery.

ART 29A BEGINNING PAINTING – 3 Units
(Formerly ART 29, 25AB)
Class Hours: 27 lecture/81 lab total
A creative course in the use of oil, polymer, and other synthetic media on canvas, hardboard, or metal. Application of these media and other media used in representation and abstract form. Course designed for Architecture majors, Painting Concentration and Theatre Arts Technician Concentration.
ART 29B INTERMEDIATE PAINTING – 3 Units  
(formerly ART 30, 25CD)  
Prerequisite: ART 29A with a grade of C or higher  
Class Hours: 27 lecture/81 lab total  
An introductory course in oil or polymer painting which is designed,  
through guided experimentation, to broaden the student’s knowledge of  
opaque media and techniques. Students are expected to complete  
three paintings: a non-objective work, a realist work and a “Free”  
painting (student’s choice).

ART 29C ADVANCED INTERMEDIATE PAINTING – 3 Units  
Prerequisite: ART 29B with a grade of C or higher  
Class Hours: 27 lecture/81 lab total  
A course designed to expand upon the information and techniques  
learned in Intermediate painting. Attention will be given to personal  
idea development, consistency, presentation techniques and working  
with more independence. The student will be expected to increase  
quality and number of paintings completed during the semester. The  
student will also learn to develop a professional portfolio and  
communicate professionally.

ART 29D ADVANCED PAINTING – 3 Units  
Prerequisite: ART 29C with a grade of C or higher  
Class Hours: 27 lecture/81 lab total  
Advanced students will narrow the scope of techniques addressed in  
Art 29C to focus on the creation of a series of images which effectively  
express selected experiences. Artists will create a portfolio for use in  
the Annual Student Art Competition. These directed works will result  
from ongoing class discussions of projects, instructor presented slide  
lectures, films and technical critiques. Students will investigate  
preservation and cataloguing techniques.

ART 31A BEGINNING FIGURE DRAWING – 3 Units  
(formerly ART 31, 22AB)  
Class Hours: 27 lecture/81 lab total  
An introductory course in creative drawing of the nude human figure  
using a wide variety of techniques. Emphasis will be placed on  
anatomy, proportion, composition, and development of personal  
expression. Topics include an examination of the historical and  
contemporary roles of figure drawing in the visual arts. Students in this  
course will learn both descriptive and interpretive approaches to figure  
drawing.

ART 31B INTERMEDIATE FIGURE DRAWING – 3 Units  
(formerly ART 32, 22CD)  
Prerequisite: A grade of C or higher in ART 31A  
Class Hours: 27 lecture/81 lab total  
An intermediate visual arts course in the study of the nude human  
figure. Through the use of a variety of media, students will expand  
their skills in drawing from observation as well as interpret the figure  
through a variety of approaches.

ART 31C ADVANCED INTERMEDIATE FIGURE DRAWING –  
3 Units  
Prerequisite: ART 31B with a grade of C or higher  
Class Hours: 27 lecture/81 lab total  
A developmental course designed to expand on information and  
techniques learned in Intermediate Figure Drawing. Attention will be  
given to a more personal interpretation of the figure, technique,  
consistency, presentation and the execution and resolution of ideas  
with greater independence. The student will produce and critically  
discuss increasingly sophisticated works, which will become part of his/  
her professional portfolio.

ART 31D ADVANCED FIGURE DRAWING – 3 Units  
Prerequisite: ART 31C with a grade of C or higher  
Class Hours: 27 lecture/81 lab total  
Advanced Figure Drawing students will work toward an expanded  
knowledge of (and ability) with materials employed in Advanced  
Intermediate Figure Drawing. Through this exploration, students will  
define a clearer personal direction and emerge with enhanced critical  
skills.

ART 35A BEGINNING CERAMICS – 3 Units  (formerly ART 35,  
35AB)  
Grading: Pass/No Pass Option  
Note: Field trips may be required  
Class Hours: 27 lecture/81 lab total  
This is a ceramics course emphasizing studio problems which involve  
the potter's wheel, construction of molds and hand-building techniques.  
Use of the potter’s wheel will go beyond basic functional forms and will  
be used to create sculpture. Molds and hand-building techniques will  
also emphasize sculptural works in clay.

ART 35B INTERMEDIATE CERAMICS – 3 Units  
(formerly ART 36, 35CD)  
Grading: Pass/No Pass Option  
Prerequisite: ART 35A with a grade of C or higher  
Note: Field trips may be required  
Class Hours: 27 lecture/81 lab total  
An intermediate course developing skills in the use of the potter's  
wheel. The course includes hand-building, throwing, plaster molding,  
glazing, surface decoration and firing of ceramic forms.

ART 37 SCULPTURAL CERAMICS – 3 Units  
Grading: Pass/No Pass Option  
Advisory: ART 35A or ART 35B with a grade of C or higher  
Note: Field trips may be required  
Class Hours: 27 lecture/81 lab total  
This is a ceramics course emphasizing studio problems which involve  
the potter's wheel, construction of molds and hand-building techniques.  
Use of the potter’s wheel will go beyond basic functional forms and will  
be used to create sculpture. Molds and hand-building techniques will  
also emphasize sculptural works in clay.
lecture, demonstration and class critiques. Students will produce four editions of prints within the color intaglio techniques.

ART 50C ADVANCED PRINTMAKING – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ART 50B with a grade of C or higher
Class Hours: 27 lecture/81 lab total
An advanced course focusing on color relief print processes (i.e. multi-plate, a la poupee and rainbow printing). Advanced students will clearly express their personal aesthetic through the production of four editions of prints within the color relief processes. Emphasis will be placed on the use of color relief printing as an expressive art form through lecture, demonstration, and class critiques.

ART 55A BEGINNING SCULPTURE – 3 Units
(formerly ART 55, 55AB)
Advisory: ART 15 with a grade of C or higher
Note: Field trips may be required
Class Hours: 27 lecture/81 lab total
A creative course in the sculpting of wood, clay, plaster, and other materials. Application of these media are used in abstract and representational forms.

ART 55B INTERMEDIATE SCULPTURE – 3 Units
(formerly ART 56, 55CD)
Prerequisite: ART 55A with a grade of C or higher
Note: Field trips may be required
Class Hours: 27 lecture/81 lab total
An intermediate level course in the sculpting of clay, wood, metal, plaster, and other materials. Creative application of these media are used in abstract and representational forms.

ART 55C ADVANCED SCULPTURE – 3 Units
Prerequisite: ART 55B with a grade of C or higher
Note: Field trips may be required
Class Hours: 27 lecture/81 lab total
This course expands upon the information and techniques gained from ART 55B. Attention will be given to personal idea development and concepts, consistency, presentation, techniques and working independently. Students will be expected to develop a style and conceptual approach which will be reflected in the sculpture produced during the semester. Students will develop a professional portfolio and learn to communicate professionally.

ART 57 SCULPTURAL GLASS – 3 Units
Advisory: ART 45 or ART 55 with a grade of C or higher
Note: Field trips may be required
Class Hours: 27 lecture/81 lab total
A structured intermediate sculpture course in which students will develop an understanding of the potential of the medium of glass in its molten and frozen states. Students will begin a hands-on involvement with molten glass working, ladle sand casting, kiln casting and other glass processes. Regular demonstrations, presentations and in-class projects as well as individual assignments will establish a fundamental knowledge and physical understanding of glass as a medium for sculpture.

ART 60A BEGINNING DARKROOM PHOTOGRAPHY – 3 Units
(formerly ART 60AB)
Grading: Pass/No Pass Option
Note: This is a film based class; students must provide their own 35mm camera with adjustable shutter and aperture.
Class Hours: 27 lecture/81 lab total
An introductory course presenting the origins and history of photography, camera and lens familiarization, exposure, metering, film development, printing procedures, print presentation, composition and standards of quality. Emphasis is placed on black and white negative and print quality along with content, composition and personal expression.

ART 60B INTERMEDIATE DARKROOM PHOTOGRAPHY – 3 Units
(formerly ART 61, 61A)
Grading: Pass/No Pass Option
Prerequisite: ART 60A with a grade of C or higher
Note: This is a film based class; students must provide their own 35mm camera with adjustable shutter and aperture.
Class Hours: 27 lecture/81 lab total
This course builds on the techniques covered in ART 60A. This course provides an introduction to the fundamental theories, vocabularies and techniques of traditional chemical-based photography. Emphasis will be on negative quality, the fine print and presentation.

ART 60C ADVANCED INTERMEDIATE DARKROOM PHOTOGRAPHY – 3 Units
(formerly ART 62, 61BD)
Grading: Pass/No Pass Option
Prerequisite: ART 60B with a grade of C or higher
Note: This is a film based class; students must provide their own 35mm camera with adjustable shutter and aperture.
Class Hours: 27 lecture/81 lab total
This course builds on the techniques covered in ART 60B. This course provides instruction in the advanced concepts of traditional chemical-based photography. Emphasis will be on alternative process photography, medium and large format photography and photo theory.

ART 60D ADVANCED DARKROOM PHOTOGRAPHY – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ART 60C with a grade of C or higher
Note: This is a film based class; students must provide their own 35mm camera with adjustable shutter and aperture.
Class Hours: 27 lecture/81 lab total
This course builds on the techniques covered in ART 60C. This course provides continued exploration in the advanced techniques, vocabularies and techniques of traditional chemical-based photography. Emphasis will be on current issues in photography, contemporary photographers and portfolio development along with the basic theories of illumination and the utilization of a variety of light sources.

ART 70A BEGINNING DIGITAL PHOTOGRAPHY – 3 Units
(formerly ART 70)
Grading: Pass/No Pass Option
Note: This is a digital imaging class. Students must provide an 8 megapixel (or larger) digital camera with manual aperture and shutter speed controls.
Class Hours: 27 lecture/81 lab total
An introductory digital course presenting the origins and history of photography, camera and lens familiarization, exposure, metering, printing procedures, print presentation, composition and standards of quality. Emphasis is placed on print quality along with content, composition and personal expression. The course concentrates on expressive and aesthetic aspects of photography in fine art.

ART 70B INTERMEDIATE DIGITAL PHOTOGRAPHY – 3 Units
(formerly ART 71)
Grading: Pass/No Pass Option
Prerequisite: ART 70A with a grade of C or higher
Note: This is a digital imaging class. Students must provide an 8 megapixel (or larger) digital camera with manual aperture and shutter speed controls.
Class Hours: 27 lecture/81 lab total
A continuation and advancing of the principles covered in ART 70A with emphasis on artistic expression and use of current technologies.

ART 70C ADVANCED INTERMEDIATE DIGITAL PHOTOGRAPHY – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ART 70B with a grade of C or higher
Note: This is a digital imaging class. Students must provide an 8 megapixel (or larger) digital camera with manual aperture and shutter speed controls.
Class Hours: 27 lecture/81 lab total
This course builds on the techniques covered in ART 70B. This course provides instruction in the advanced theories, vocabularies and techniques of digital photography with emphasis on artistic expression and use of current technologies.

ART 70D ADVANCED DIGITAL PHOTOGRAPHY – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ART 70C with a grade of C or higher
Note: This is a digital imaging class. Students must provide an 8 megapixel (or larger) digital camera with manual aperture and shutter speed controls.
Class Hours: 27 lecture/81 lab total
This course builds on the techniques covered in ART 70C. This course provides instruction in the advanced theories, vocabularies and techniques of digital photography with emphasis on artistic expression and use of current technologies.

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
speed controls.

**Class Hours:** 27 lecture/81 lab total

This course builds on the techniques covered in ART 70C. This course provides continued exploration in the advanced theories, vocabularies and techniques of digital photography. Emphasis will be on current issues in photography, contemporary photographers and portfolio development along with the basic theories of illumination and the utilization of a variety of light sources.

**ART 80A GRAPHIC DESIGN – 3 Units**

**Grading:** Pass/No Pass Option

**Advisory:** ART 12 with a grade of C or higher

**Note:** It would be helpful if the student has basic skills in Adobe Photoshop.

**Class Hours:** 27 lecture/81 lab total

The course provides the student with an introduction to the theories and applications behind typography, color theory, layout, and composition. The student will learn and use industry standard image editing and page layout software to produce class assignments typically encountered in the graphic design and printing industries.

**ART 80B INTERMEDIATE GRAPHIC DESIGN – 3 Units**

**Grading:** Pass/No Pass Option

**Prerequisite:** ART 80A with a grade of C or higher

**Class Hours:** 27 lecture/81 lab total

This course builds on the software training and design concepts from 80A to teach the student more advanced image editing, document composition, and digital illustration techniques using industry standard software and accepted design practices and advanced theories and principles.

**THE 100 SERIES OF COURSES ARE SPECIFIC SUBJECT AREAS TAKEN FROM THE TRANSFER (1-98) COURSES AS SHORT-TERM INTRODUCTION COURSES:**

**ART 110 MIXED MEDIA: WORKS ON PAPER – 2 Units**

**Grading:** Pass/No Pass Option

**Class Hours:** 18 lecture/54 lab total

This course selectively and aesthetically combines various media and techniques of drawing, painting, photo, printing and collage into two-dimensional works. Underlying the instruction is a historical component which emphasizes modern and contemporary art to broaden the students' interest and awareness of contemporary trends.

**ART 121 ILLUSTRATION** (formerly **ART 121W**) – 2 Units

**Grading:** Pass/No Pass Option

**Class Hours:** 18 lecture/54 lab total

Designed to develop a personal approach to the problems of pictorial elucidation and provides an understanding of the use of visual media to illustrate verbal content. It develops a knowledge of the more common graphic media and of design elements in relationship to illustration.

**ART 122 PORTRAIT PAINTING – 2 Units** (formerly **ART 125W**)

**Grading:** Pass/No Pass Option

**Class Hours:** 18 lecture/54 lab total

A basic course in the materials, tools, composition, proportion, lighting, shadow patterns, anatomy, value, color, line and study of other masters in portrait painting.

**ART 123 LANDSCAPE PAINTING – 2 Units** (formerly **ART 125X**)

**Grading:** Pass/No Pass Option

**Class Hours:** 18 lecture/54 lab total

A basic course to introduce the techniques of landscape painting, specifically the areas of pictorial materials, space, simple perspective, composition, value, color, scale, texture, line, and the study of other landscape painters.

**ART 124 INTRODUCTION TO PAINTING – 2 Units** (formerly **ART 125Y**)

**Grading:** Pass/No Pass Option

**Class Hours:** 18 lecture/54 lab total

Designed as an introductory segment to the practice and theory of painting. This course will focus upon those aspects of pictorial organization employed in the formation of representational painting.

**ART 125 INTRODUCTION TO WATERCOLOR – 2 Units** (formerly **ART 126W**)

**Grading:** Pass/No Pass Option

**Class Hours:** 18 lecture/54 lab total

A preliminary course in watercolor methods, such as wet wash, stroke and glaze overlays, with emphasis on creative interpretation of the environment.

**ART 126 NATURE IN WATERCOLOR – 2 Units** (formerly **ART 126X**)

**Grading:** Pass/No Pass Option

**Class Hours:** 18 lecture/54 lab total

An extensive course in different watercolor methods, such as: wet wash, stroke, and glaze overlays, with emphasis on creative interpretation of subjects in nature.

**ART 301 BEGINNING, INTERMEDIATE AND ADVANCED DRAWING & PAINTING-MIXED MEDIA – 0 Units**

**Class Hours:** 6-108 lab total

An introductory, intermediate and advanced course incorporating basic drawing techniques using a variety of pencils and covering composition, color mixing, brush strokes, watercolor, acrylic, oil and pastels. The course is designed to provide stimulation and growth for individual adults through art activities.

**ART 302 ART EXPRESSION FOR SENIORS – 0 Units**

**Class Hours:** 6-108 lab total

Come and express yourself in colorful explorations. "Draw" upon your life experiences: your memories, dreams and reflections. Learn to create designs and images using paints, watercolor crayons, collage, colored pens/pencils, ink, pastels, fiber and clay. Course designed for older adults, no previous art experience is necessary.

**ASTRONOMY** (ASTR)

**ASTR 1 ASTRONOMY – 3 Units**

**Class Hours:** 54 lecture total

A survey course designed to introduce the science of astronomy. This course covers aspects of archaeoastronomy, telescope optics, radio astronomy, prominent scientists, the sun, planets and their moons, and generalities of stellar evolution. This course may be offered in a distance education format.

**ASTR 2 STELLAR ASTRONOMY – 3 Units**

**Class Hours:** 54 lecture total

A survey course designed to introduce the science of astronomy concentrating on celestial bodies and phenomena beyond the solar system. This course covers aspects of the history of astronomy, light, telescopes, prominent scientists, the sun, stars, stellar evolution, galaxies, cosmology, and the possibility of other life forms in the Universe. This course may be offered in a distance education format.

**AUTOMOTIVE TECHNOLOGY** (AUTO)

**NOTE:** STUDENTS MUST PROVIDE THEIR OWN HAND TOOLS FOR TECHNICAL CLASSES IN THE DIESEL TECHNOLOGY AND AUTOMOTIVE TECHNOLOGY MAJORS IN ORDER TO COMPLETE REQUIRED COURSE OBJECTIVES.

**AUTO 1 VEHICLE ELECTRICAL SYSTEMS – 3 Units**

**Class Hours:** 27 lecture/81 lab total

Designed to cover the basic theory of electricity and magnetism, as well as areas of operation, testing, and service of vehicle batteries, switches, relays, starters and starting systems, alternators, regulators, charging systems, and light circuits. The course includes electrical theory, repair procedures, and ASE laboratory tasks. This course, along with AUTO 10, is designed to prepare students to become ASE certified in area A-6. Required for Automotive majors with emphasis on electrical systems.

**AUTO 10 AUTOMOTIVE ELECTRONICS – 3 Units** (formerly **AUTO 110**)

**Prerequisite:** AUTO 1 with a grade of C or higher

**Class Hours:** 27 lecture/81 lab total
This course is designed to establish an understanding of electronic theory and solid state technology as it applies to the automobile. The student will learn to read wiring schematics, calculate voltages, current flow, and resistances within parallel and series circuits, and to properly use related testing equipment used for diagnosis. This course includes electrical/electronic theory, repair procedures, and ASE laboratory tasks. This course, along with AUTO 1, is designed to prepare students to become ASE certified in area A-6. This course, along with AUTO 20 and AUTO 21, will qualify students to test for the Bureau of Automotive Repair Level 1 smog training certificate.

AUTO 20 ENGINE PERFORMANCE – 4 Units
Class Hours: 36 lecture/108 lab total
This course is designed to give students the understanding of the operation of automotive engines and related systems such as electrical, ignition and fuel delivery. The course will also provide students with entry level skills to diagnose, service and repair these systems using current industry tools and equipment. This course includes ASE laboratory tasks and is designed to prepare students to become ASE certified in areas A-8. This course along with AUTO 10 and AUTO 21 will qualify students to test for the Bureau of Automotive Repair for Level 1 smog training certificate.

AUTO 21 ADVANCED ENGINE PERFORMANCE – 3 Units
Prerequisite: AUTO 20 with a grade of C or higher
Class Hours: 27 lecture/81 lab total
This course is designed to continue the study of engine performance by including the emission control systems and computer controlled engine operation. The course will also provide students with entry level skills to diagnose, service and repair these systems using current industry tools and equipment. This course includes ASE laboratory tasks and, along with AUTO 20, is designed to prepare students to become ASE certified in areas A-8 and L-1. This course along with AUTO 10 and AUTO 20 will qualify students to test for the Bureau of Automotive Repair Level 1 smog training certificate.

AUTO 94 WORKSITE LEARNING FOR AUTOMOTIVE TECH. – 1-8 Units
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

AUTO 130 AUTOMOTIVE STEERING AND SUSPENSION – 3 Units
Class Hours: 36 lecture/54 lab total
This course is designed to give students the entry level skills required to diagnose, service, and repair modern automotive wheel and tire, steering, and suspension systems. The course includes theory of operation, repair procedures, and ASE laboratory tasks. This course, along with AUTO 131, is designed to prepare students to become ASE certified in area A-4.

AUTO 131 AUTOMOTIVE WHEEL ALIGNMENT – 2 Units
Class Hours: 18 lecture/54 lab total
This course is designed to give students the entry level skills required to perform complete four-wheel alignments on modern automobiles and light trucks. The course includes theory of alignment principles and the operation of industry standard alignment equipment. This course, along with AUTO 130, is designed to prepare students to become ASE certified in area A-4.

AUTO 147 AUTOMOTIVE BRAKING SYSTEMS – 3 Units
Class Hours: 27 lecture/81 lab total
This course is designed to provide the entry level skills needed to diagnose, service, and repair various braking systems found on domestic and import automobiles and light trucks. The course includes brake theory, repair procedures, and ASE laboratory tasks, and is designed to prepare students to become ASE certified in area A-5. Standard and power assist, drum and disc type systems and anti-lock braking systems are included in this course.

AUTO 150 INTRODUCTION TO ENGINE MACHINING – 5 Units
(formerly INDE 150)
Class Hours: 72 lecture/54 lab total
This course is designed to introduce the student to the basic fundamentals of the internal combustion engine. The subjects will cover the operation and design of varied engine systems and the repair and rebuilding of these engines. This course will also provide instruction in the disassembly, cleaning and inspection of the internal combustion engine. The student will be oriented in the use of general and specialty tools used in the rebuilding of internal combustion engines. ASE based tasks will utilize hand and power tools and modern machining equipment. Completion of this course will prepare students to become certified in ASE area A-1.

AUTO 161 MANUAL DRIVE TRAIN AND AXLES – 3 Units
Class Hours: 27 lecture/81 lab total
A course designed to give a technical and working knowledge of manual drive trains and axles. Subject matter covered includes clutch diagnosis and repair, manual transmission diagnosis and repair, transaxle diagnosis and repair, drive (half) shaft and universal joint diagnosis and repair, rear axle diagnosis and repair, four-wheel drive component diagnosis and repair, theory of operation, repair procedures, and ASE laboratory tasks. This course is designed to prepare students to become ASE certified in area A-3.

AUTO 162 AUTOMATIC TRANSMISSIONS AND TRANSAXLES – 4 Units
Class Hours: 36 lecture/108 lab total
A course designed to give a working knowledge of automatic transmissions and transaxles. Subject matter covered will include transmission/transaxle maintenance and adjustment, in-vehicle transmission/transaxle repair, and off-vehicle transmission/transaxle repair. The course includes theory of operation, repair procedures, and ASE laboratory tasks. This course is designed to prepare students to become ASE certified in area A-2.

AUTO 163 HEATING, AIR CONDITIONING AND ACCESSORIES – 3 Units
Class Hours: 36 lecture/54 lab total
This course is designed to give students a technical and working knowledge of automotive heating and air conditioning systems. Emphasis is placed on entry level skills necessary for diagnosing, servicing, and repairing modern automotive heating and air conditioning systems. The course includes theory of operation, repair procedures, and ASE laboratory tasks. This course is designed to prepare students to become ASE certified in area A-7.

AUTO 176 LEVEL 2 SMOG TECHNICIAN TRAINING – 1 Unit
Prerequisite: AUTO 10, AUTO 20 and AUTO 21 with a grade of C or higher
Class Hours: 9 lecture/27 lab total
The Smog Check training is intended to provide students the knowledge, skills, and abilities needed to perform Smog Check inspections. Students who successfully complete this training will have met the Bureau's training requirements to qualify to take the Smog Check Inspector state licensing examination.

AUTO 180 ENGINE MACHINIST I – 4 Units
(formerly INDE 180, AUTO 180A)
Prerequisite: AUTO 150 or Dies 164 with a grade of C or higher
Non-Technical hand tools required
Class Hours: 36 lecture/54 lab total
This course is designed to give the student instruction in the use of precision equipment required in the reconditioning of modern automotive engines. Students completing this course will have the manipulative skills and the knowledge of the various machine tools required to completely remanufacture automotive engines.
AUTO 181 ENGINE MACHINIST II – 4 Units
(formerly AUTO 181, AUTO 180B)
Prerequisite: AUTO 180 with a grade of C or higher
Note: Basic hand tools required
Class Hours: 36 lecture/108 lab total
This course will build on the skills obtained in AUTO 180, Engine Machinist I, and will provide new skills in the following areas: advanced machining techniques, high performance machines, changing fixtures, maintenance and service of machine tools.

BIOLOGICAL SCIENCES (BIOL)

BIOL 1 PRINCIPLES OF BIOLOGY – 4 Units
Prerequisite: CHEM 1A with a grade of C or higher
Class Hours: 36 lecture/108 lab total
A biological science emphasizing molecular and cellular organization, energetics of respiration and photosynthesis, cell integration and development. General principles of heredity, evolution, speciation and ecology. Intended for majors in science.

BIOL 5 INTRODUCTION TO HUMAN BIOLOGY - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A one-semester introductory course in human anatomy and physiology presented with a medical emphasis. Selected topics on eleven organ systems are covered. This course is intended to serve medical assistants, licensed vocational nursing, and fire science majors. It also complements child development and nutrition majors. BIOL 5 is a prerequisite for the LVN program. This course may be offered in a distance education format.

BIOL 6 INTRO. TO HUMAN BIOLOGY LABORATORY – 1 Unit
Corequisite: BIOL 5 or previous completion of BIOL 5 with a grade of C or higher
Class Hours: 54 lab total
A laboratory course designed to complement BIOL 5. A one-semester human anatomy and physiology laboratory course. Exercises include anatomical language, microscopy, membrane transport processes, skeletal muscle contraction, cardiology, blood pressures, pulmonary ventilation, and enzymatic digestion. The anatomy of eleven organ systems is also included. BIOL 6 is a prerequisite for the LVN program.

BIOL 10 GENERAL BIOLOGY – 3 Units
Grading: Pass/No Pass Option
Note: BIOL 10 will meet the general education requirement for a laboratory science if taken with BIOL 10L. Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introduction to the major concept of modern biology. Topics covered include biochemistry, cell biology, heredity, and nature of genes, evolution, diversity of life, and principles of ecology. Emphasis will be placed on those aspects of biology that are rapidly reshaping our culture. This course may be offered in a distance education format. This course will meet the general education requirement for a laboratory science if taken with BIOL 10L.

BIOL 10L GENERAL BIOLOGY LABORATORY – 1 Unit
Grading: Pass/No Pass Option
Corequisite: BIOL 10 or previous completion of BIOL 10 with a grade of C or higher.
Note: BIOL 10L will meet the general education requirement for a laboratory science if taken with BIOL 10.
Class Hours: 54 lab total
Laboratory experiments and demonstrations covering the basic concepts of the lecture course BIOL 10. The laboratory is designed to expose students to biological techniques including microscopy, biochemistry, genetics, evolution, diversity of life, and principles of ecology.

BIOL 11 DIVERSITY OF LIFE – 3 Units
Grading: Pass/No Pass Option
Class Hours: 162 total hours
This course is a 3-unit, transferable, non-laboratory, computer-based life science course. It is available only on the Internet and is intended for those people who, for one reason or another, cannot come to the Shasta College campus for course work. Topics include molecular and cell biology, inheritance, gene expression, mutation, evolution and the diversity of living organisms.

BIOL 12 FIELD BIOLOGY – 3 Units
Class Hours: 36 lecture/54 lab total
Plant and animal morphology, classification and ecological relationships examined through field and laboratory study. Principles of ecology illustrated in the context of biotic communities of Northern California.

BOTANY (BOT)

BOT 1 GENERAL BOTANY – 4 Units
Prerequisite: MATH 102 with a grade of C or higher
Placement Level 4 or higher
Class Hours: 36 lecture/108 lab total
An introduction to the structure, physiology, reproduction, life cycles and taxonomic of major plant and plant-like groups.

BOT 50 WILDFLOWERS OF CALIFORNIA – 1 Unit
Grading: Pass/No Pass Option
Note: Two all-day Saturday field trips will be required.
Class Hours: 9 lecture /27 lab total
Local wildflowers are examined closely in the laboratory in order to learn their structural characteristics. This knowledge will be used to identify flowers using a plant identification key and for sight identification. The field trips reinforce identification skills by allowing students to observe these flowers in their natural setting. A supplementary course for botany, biology, forestry, ornamental horticulture, and natural resources students; elementary and high school teachers; and general interest. Five three-hour class meetings and two all day Saturday field trips.

BOT 52 MUSHROOM IDENTIFICATION – 2 Units
Grading: Pass/No Pass Option
Note: Includes two local mushroom collection field trips
Class Hours: 27 lecture /27 lab total
In this course, students will learn to identify mushrooms and other fungi of Northern California. Class discussions will cover mushroom biology, the groups of fungi, mushroom structure, recognizing mushrooms by sight, and identifying mushrooms using written mushroom identification keys. Field trips will reinforce identification skills and help students understand the role of mushrooms in the ecosystem. There will be special emphasis on mushroom poisons and consumer safety.

BUSINESS ADMINISTRATION (BUAD)

See Also: ACCT, CIS, OAS

BUAD 6 BUSINESS LAW I – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Introduction to the legal processes which covers the fundamental legal principles pertaining to business transactions. Topics include sources of law and ethics, contracts, torts, agency, criminal law, business organizations, and judicial and administrative processes. This course may be offered in a distance education format.

BUAD 8 BUSINESS LAW II – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course involves the various parameters and requirements of business organizations, security devices, bankruptcy with personal and intellectual property issues. This course may be offered in a distance education format.
BUAD 10 INTRODUCTION TO BUSINESS – 3 Units  
**Advisory:** ENGL 280 with a grade of C or higher or English Placement Level 5 or higher  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

A survey course for both business and non-business majors covering the different disciplines (finance, management, and marketing) of business. The course also covers the complexities of the competitive business world and includes additional disciplines such as international business, forms of business ownership, social responsibility and ethics, and entrepreneurship. Designed to provide students with familiarity with basic principles and practices of contemporary business, knowledge of business terminology, and an understanding of how business works within the U.S. economic system. Due to its introductory nature, it is recommended that this course be taken as a first business course. This course may be offered in a distance education format.

BUAD 12 INTERNATIONAL BUSINESS – 3 Units  
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

An introduction to international business. Emphasis will be on understanding global management, marketing, supply-chain management, and finance while working in an international environment influenced by cultural, legal, political, economic, and social factors. This course may be offered in a distance education format.

BUAD 15 BUSINESS AND SOCIETY – 3 Units  
**Class Hours:** 54 lecture total

The purpose of this course is to increase the student's awareness of ethical issues in business. The course establishes a framework and definition of ethics and the interaction among business, government, and society. Examples from current events and across business disciplines will be used. Opposing points of view will be presented allowing the student to make individual judgments about ethical behavior in business and what things can and should be done to create a sustainable business model for the future.

BUAD 30 REAL ESTATE PRINCIPLES – 3 Units  
(formerly REAL 30)  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This is a fundamental real estate course covering the basic laws and principles of California Real Estate. The knowledge, background, and terminology necessary for advanced study in specialized courses are covered. Designed to assist those preparing for the real estate salesperson license examination. This course may be offered in a distance education format.

BUAD 40 ENTREPRENEURSHIP AND SMALL BUSINESS – 3 Units  
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course is an entrepreneurial perspective of starting a small business. The course covers techniques and methods of starting and managing a small business enterprise and incorporates the exploration of a sound business plan that includes a financial, management, and marketing analysis. This course may be offered in a distance education format.

BUAD 41 LEADERSHIP & SUPERVISION – 3 Units  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course focuses on the role of the first-line supervisor in the organization. There is particular emphasis on team building, coping with organizational change, leadership styles, motivating employees, and the supervisor’s role in monitoring the primary management functions of planning, organizing, directing and controlling. This course may be offered in a distance education format.

BUAD 42 FINANCING A SMALL BUSINESS – 3 Units  
**Grading:** Pass/No Pass Option  
**Advisory:** Students will need to have access to and a working knowledge of Microsoft Excel.  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

A course designed to give an understanding on the various ways of funding a business venture. The course explores how to raise money for growing or starting a small business by reviewing sources of public and private debt, equity capital, initial Public Offering, commercial loans and SBA-guaranteed programs. This course may be offered in a distance education format.

BUAD 44 INVESTMENTS – 3 Units (formerly FIN 44)  
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

Course designed to help the student gain an understanding of stocks, bonds, and other securities. Students will be encouraged to develop their own investment philosophy based on an understanding of the securities market and methods of analyzing that market. Recommended for students wanting an understanding of how businesses raise capital in the securities market. The student will develop a hypothetical personal investment portfolio, which will be tracked with the assistance of a web-based monitoring system. This course may be offered in a distance education format.

BUAD 45 HUMAN RELATIONS ON THE JOB – 3 Units  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

Human Relations on the Job is a course designed to give the student the opportunity to increase interpersonal skills. There is particular emphasis on communication, motivation, leadership, and group decision skills. Emphasis is placed on improved relationships among employees and between employees and employers. Topics include communication processes and styles, attitudes, values, motivation, leadership, valuing diversity, and reinforcement on the job. This course may be offered in a distance education format.

BUAD 46 FUNDAMENTALS OF NONPROFIT MANAGEMENT – 1 Unit  
**Class Hours:** 18 lecture total (when offered in the Distance Education format, hours will total 54)

Fundamentals of Nonprofit Management provides an understanding of the nonprofit sector as a whole and as well as nonprofit management from an overview perspective. This course will introduce the fundamentals of effective organization mission and vision statements, strategic planning, operations management, and budgeting. Participants will gain understanding of different aspects of management of a nonprofit organization. This course may be offered in a distance education format.

BUAD 47 BUSINESS COMMUNICATIONS – 3 Units  
**Prerequisite:** BUAD 166 with a grade of C or higher or English Placement Level 6 or higher  
**Note:** Student must complete all assignments using a computer. Handwritten assignments will not be accepted.  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course provides implementation of letter-writing principles and techniques through expository and argumentative writing. Additionally, the writing of an employment portfolio, business letters, an analytical report, and team presentation is required. Application of electronic communication (Netiquette, email format, Internet uses) will also be presented. This is a required course for many major and certification programs and an alternate requirement or suggested elective in others. This class also satisfies the A.S. General Education requirement in English. This course may be offered in a distance education format.
BUAD 71 INTRODUCTION TO e-COMMERCE – 1 Unit  
Grading: Pass/No Pass Option  
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)  
This course is an introduction to e-commerce principles. Topics include an overview of where e-commerce fits into the business, e-commerce basics, cost-benefit of e-commerce solutions, planning and development. This course offers practical suggestions to individuals involved in or planning an e-commerce business or business component. This course may be offered in a distance education format.

BUAD 72 e-COMMERCE MARKETING – 1 Unit  
Grading: Pass/No Pass Option  
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)  
E-Commerce Marketing (electronic commerce) is the study of all the online or electronic-based activities that facilitate manufacturing goods and services by the producer to satisfy the wants and needs of the consumer. Electronic marketing draws heavily on networks' technology to coordinate market research, aid product development, and develop strategies and tactics to persuade consumers to buy, provide for online distribution, maintain customer records, conduct customer satisfaction surveys, and gather consumer feedback. Electronic marketing advances the overall marketing program that in turn supports the company's overall marketing business objectives. This course may be offered in a distance education format.

BUAD 76 SALES – 3 Units (formerly MKTG 70, BUSI 70)  
Grading: Pass/No Pass Option  
Class Hours: 54 lecture total  
Study of the fundamental problems, practices, and techniques of the salesperson. The course covers both retail and direct selling techniques including prospecting, pre-approach, demonstration/presentation, handling objections, closing, follow-up, and time management. Students will be required to make a minimum of one sales presentation in class.

BUAD 77 PRINCIPLES OF MARKETING – 3 Units  
(formally MKTG 74, BUSI 74)  
Grading: Pass/No Pass Option  
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)  
This course is designed to help the student understand everyday marketing problems in organizations. Topics include changing role of marketing, the marketing mix, consumer behavior, sales, advertising, market research, middlemen, retailing, product development, and marketing plans. Additionally, the writing and presentation of a marketing plan is required. This course may be offered in a distance education format.

BUAD 78 PRINCIPLES OF CUSTOMER SERVICE – 3 Units  
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)  
This course is designed to provide the student with understanding and knowledge of the importance of meeting the needs of customers in a service economy. Students will gain insight into employer and customer expectations of service levels. Emphasis will be placed on developing specific skills and abilities critical to providing excellent customer service. In addition, the student will be introduced to the concepts of internal and external customers, customer satisfaction and customer retention. Other topics covered are attitude in the workplace, communicating with customers, decision making and problem solving, conflict resolution, and dealing with change in the workplace. This course may be offered in a distance education format.

BUAD 81 STRESS MANAGEMENT IN THE WORKPLACE – .5 Unit  
Grading: Pass/No Pass Only  
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)  
This course is designed to acquaint the student with various skills the supervisor needs to help employees. Included in the recognition of stress and how to manage it, job burnout and what to do about it, and counseling employees in various situations. This course may be offered in a distance education format.

BUAD 82 MANAGING ORGANIZATIONAL CHANGE – .5 Unit  
Grading: Pass/No Pass Only  
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)  
This course is designed to provide the student with an understanding of change and the influence it has on an organization and the individuals in that organization. Topics will include understanding organizational change, theoretical models of change, stages of change, and how to manage organization change. This course may be offered in a distance education format.

BUAD 83 CONFLICT RESOLUTION – .5 Unit  
Grading: Pass/No Pass Only  
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)  
This course is designed to provide the student with an analysis of attitudes and behavior, which create conflict between individuals and groups within an organization. This course may be offered in a distance education format.

BUAD 84 ATTITUDE IN THE WORKPLACE – .5 Unit  
Grading: Pass/No Pass Only  
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)  
This course is designed to provide the student with certain key skills in the area of attitude so that they may effectively maintain a positive attitude at the workplace and at home. The student will be introduced to the concepts of how attitudes are communicated, the three types of attitudes and how to adjust one's attitude. Topics will also include the primary causes of a bad attitude, turnaround strategies to battle these bad attitudes and specific techniques to raise the attitude of others. This course may be offered in a distance education format.

BUAD 85 CUSTOMER SERVICE IN THE WORKPLACE – .5 Unit  
Grading: Pass/No Pass Only  
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)  
This course is designed to provide the student with certain key skills and attitudes in order to effectively meet the needs of the customers. The student will be introduced to the concept of internal and external customers, customer satisfaction and customer retention. Topics will also include communicating with customers, developing a positive attitude, handling complaints and sales skills. This course may be offered in a distance education format.

BUAD 86 DECISION MAKING AND PROBLEM SOLVING – .5 Unit  
Grading: Pass/No Pass Only  
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)  
This course is designed to introduce the student to decision making and problem solving as a supervisor. This course may be offered in a distance education format.

BUAD 87 TEAM BUILDING – .5 Unit  
Grading: Pass/No Pass Only  
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)  
This course is designed to provide the student with an understanding of how teams work together, common problems teams encounter and how to solve them. Students will learn to recognize various team player styles. Students will be introduced to team building in the workplace. This course may be offered in a distance education format.

BUAD 88 COMMUNICATING WITH PEOPLE – .5 Unit  
Grading: Pass/No Pass Only  
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)  
This course is designed to introduce the student to key elements in
communication within business organizations. Topics will include verbal and nonverbal communication, listening skills and specific supervisory communication skills. This course may be offered in a distance education format.

**BUAD 89 TIME MANAGEMENT – .5 Unit**
Grading: Pass/No Pass Only
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to introduce the student to time management principles and specific tools that assist in making maximum use of time. Basic concepts of managing space will also be covered. This course may be offered in a distance education format.

**BUAD 90 VALUES AND ETHICS– .5 Unit**
Grading: Pass/No Pass Only
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to acquaint the student with the importance of values and ethics in the workplace. The importance of values and ethics involved in the supervisor carrying out his/her duties will be emphasized. This course may be offered in a distance education format.

**BUAD 91 PRINCIPLES OF MANAGEMENT – 3 Units**
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This is a basic course to broaden the student's knowledge of the business organization emphasizing how the organizational structure can affect personnel, productivity, and ultimately the success of the firm. This course is required for the Business Management Certificate Program and is designed to assist any student who may already be on the lower rungs of the management ladder wishing to become more knowledgeable about organization and management theory. The course should stimulate thought and discussion of several aspects of management and provide a limited opportunity for public speaking. This course may be offered in a distance education format.

**BUAD 94 BUSINESS WORKSITE LEARNING – 1-8 Units**
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

**BUAD 106 BUSINESS MATHEMATICS – 3 Units**
Grading: Pass/No Pass Option
Prerequisite: MATH 240 with a grade of C or higher or Math Placement Level 2 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A required course in several business occupational majors and suggested elective in others. Student entering this class should have a strong foundation of basic arithmetic skills of adding, subtracting, multiplying, and dividing of whole numbers, fractions, decimals, and percentage values. The class consists of applications of these skills to such business problems as markup, simple, discount, and compound interests, trade and cash discounts, insurance, installment buying, and depreciation. Waiver: Under certain circumstances, this course may be waived for some A.A. degrees or certificate requirements by substituting MATH 103 or higher math course. This course may be offered in a distance education format.

**BUAD 120 STARTING A SMALL BUSINESS – THE ENTREPRENEUR – 1 Unit**
Grading: Pass/No Pass Option
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
A survey course that explores various components that need to be considered for anyone contemplating or currently operating a small business – the Entrepreneur. The major class project will be the development of a basic executive summary of the student's business of choice. This course may be offered in a distance education format.

**BUAD 166 BUSINESS ENGLISH – 3 Units**
Prerequisite: ENGL 280 with a grade of C or higher or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides an effective command of written English for transaction of business. Emphasis is given to grammar, spelling, vocabulary, and punctuation, and the format of the business letter, including expository and argumentative writing as well as the necessary information competency skills to select and incorporate reliable data in support of an argument. This is a required course for many majors and certificate programs and an alternative requirement or suggested elective in others. This course may be offered in a distance education format.

**BUAD 176 PRINCIPLES OF RETAILING – 3 Units**
(formerly MKTG 176, BUSI 176)
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A course designed to develop student proficiency in the diverse aspects of retailing. The course includes specific areas of study, such as: store site location, store layout, product line selection, buying, pricing, selling, advertising, and financial management. This class is designed for those going into retail as well as those students planning to enter businesses that deal with retail merchants, i.e., wholesalers, advertising media, insurance agencies, accounting firms, and other service areas. This course may be offered in a distance education format.

**CHEMISTRY (CHEM)**

**CHEM 1A GENERAL CHEMISTRY – 5 Units**
Grading: Pass/No Pass Option
Prerequisite: CHEM 16 or CHEM 2A with a grade of C or higher, or a score of 20 or higher on the California Chemistry Diagnostic test; and MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher. (If you have completed one year of high school chemistry with a grade of C or higher, you will be eligible to enroll in this course once you have seen a counselor.)
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lecture/54 lab/18 discussion (when offered in the Distance Education format, hours will total 216 for the lecture/discussion portion of this course and an additional 54 hours of lab totaling 270 hours for this course)
A course for science and engineering majors which covers the nature of atoms, molecules, and ions; chemical reactions; precipitation, oxidation-reduction, and acid/base chemistry; stoichiometry; electronic structure; periodicity; chemical bonding; properties of solids, liquids, gases, and solutions; and an introduction to thermodynamics and equilibrium. The lecture and discussion portions of this course may be offered in a distance education format.

**CHEM 1B GENERAL CHEMISTRY – 5 Units**
Grading: Pass/No Pass Option
Prerequisite: CHEM 1A with a grade of C or higher
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lecture/18 discussion/54 lab total (when offered in the Distance Education format, hours will total 216 for the lecture/discussion portion of this course and an additional 54 hours of
CHEM 1 INTRODUCTORY CHEMISTRY – 4 Units
Prerequisite: MATH 101 with a grade of C or higher, or Math Placement Level 3 or higher
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 36 lecture/108 lab total

An introduction to the basic principles of general chemistry. Emphasis will be placed on applications to the chemistry of the environment, soils, water, air, agriculture, natural resources, and related consumer products. This course is suitable for environmental technology, agriculture, natural resources, and liberal arts students.

CHEM 10 CHEMISTRY FOR THE LIBERAL ARTS – 3 Units
Prerequisite: MATH 101 with a grade of C or higher, or Math Placement Level 3 or higher
Note: CHEM 10 will meet the general education requirement for a laboratory science if taken with CHEM 11
Class Hours: 54 lecture (when offered in the Distance Education format, hours will total 162)

An introduction to the major concepts of chemistry involving minimal student friendly math with attention to their relevance to practical and societal problems. This course is intended for non-science majors who wish to gain an appreciation for the application of chemistry to everyday living. The course includes such topics as nuclear energy and energy alternatives; health issues of drugs; food additives, nutrition, hormones, chemicals for household use, chemicals in the environment, and synthetics. This course may include field trips (not in the online format). This course may be offered in a distance education format. This course will meet the general education requirement for a laboratory science if it is taken with CHEM 11.

CHEM 11 CHEMISTRY LAB FOR THE LIBERAL ARTS – 1 Unit
Grading: Pass/No Pass Option
Corequisite: CHEM 10 or previous completion of CHEM 10 with a grade of C or higher
Note: CHEM 10 taken with CHEM 11 meets GE requirement in science. Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lab total (when offered in the Distance Education format, hours will total 54)

Laboratory experiments and demonstrations, almost entirely non-mathematical, covering the basic concepts of the lecture course, CHEM 10. The laboratory is designed to help students learn how to use various chemicals around us, safely and effectively. This course may include field trips. This course may be offered in a distance education format.

CHEM 16 CHEMICAL PROBLEM-SOLVING – 3 Units
Grading: Pass/No Pass Option
Advisory: MATH 101 with a grade of C or higher, or Math Placement Level 3 or higher
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

An introductory chemistry course for students who plan to major in a scientific field. This course is also designed to prepare students for General Chemistry 1A. The major emphasis of the course will be on chemical problem-solving. This course may be offered in a distance education format.

CHEM 26 FUNDAMENTALS OF GENERAL, ORGANIC, AND BIOCHEMISTRY – 4 Units
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)

An introduction to the fundamental principles of general, organic, and biochemistry delivered completely online that will emphasize practical applications to nursing and health professions. This course will fulfill the CSU-Chico requirement for entry to the RN to BSN upgrade program. It is also suitable for AA degree programs and non-science transfer students. It may fulfill requirements for other related health and nutritional degree programs. This course may be offered in a distance education format.

CHEM 70 ORGANIC CHEMISTRY – 4 Units
Prerequisite: CHEM 1B with a grade of C or higher
Note: CHEM 70A should be taken concurrently with CHEM 70 for science majors for transfer
Class Hours: 54 lecture/18 discussion total (when offered in the Distance Education format, hours will total 216)

Structure, bonding, Polar bonds and their consequences, Alkanes and Cycloalkanes, stereochemistry and physical properties of organic compounds. Overview of organic reactions, reactions and mechanisms of alkanes, alkenes, alkynes, organic halides, Nucleophilic substitutions and eliminations. Science majors should take a second semester organic course, CHEM 71, which completes the required two-semester sequence. CHEM 70A, laboratory course, should be taken concurrently for science majors. Check school of transfer for their requirements. This course may be offered in a distance education format.

CHEM 70A ORGANIC CHEMISTRY LABORATORY – 1 Unit
Prerequisite: CHEM 1B with a grade of C or higher
Corequisite: Students must be concurrently enrolled in, or have completed CHEM 70 with a grade of C or higher
Note: Chemistry majors are required to take CHEM 70A concurrently with CHEM 70. Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lab total

Theory and application of organic chemistry laboratory techniques.
CHEM 71 ORGANIC CHEMISTRY – 3 Units
Prerequisite: CHEM 70 with a grade of C or higher
Note: CHEM 71A should be taken concurrently with CHEM 71 for science majors for transfer
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A continuation of CHEM 70. Infrared Spectroscopy, Mass Spectrometry, Nuclear Magnetic Resonance, Conjugated Dienes and Ultraviolet Spectroscopy, Benzene and Aromaticity, Chemistry of Benzene, Electrophilic Aromatic Substitution Alcohols and Phenols, Ethers and Epoxides, Thiols and Sulfides, Aldehydes and Ketones, Carboxylic Acids, Carboxylic Acid Derivatives and Nucleophilic Acyl substitution, Carboxyl alpha-substitution Reactions Carbonyl Condensation, Amines, Carbohydrates, Amino Acids, Peptides and Proteins, Lipids. This course completes a two-semester sequence for science majors. CHEM 71A, laboratory course, should be taken concurrently for science majors. Check school of transfer for their requirements. This course may be offered in a distance education format.

CHEM 71A ORGANIC CHEMISTRY LABORATORY – 2 Units
Prerequisite: CHEM 70A with a grade of C or higher
Corequisite: CHEM 71 or previous completion of CHEM 71 with a grade of C or higher
Note: Chemistry majors are required to take CHEM 71A concurrently with CHEM 71. Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 108 lab total
A continuation of Organic CHEM 70A. Theory and application of organic chemistry laboratory techniques.

CHINESE (CHIN)

CHIN 1 MANDARIN CHINESE 1 – 5 Units
Grading: Pass/No Pass Option
Class Hours: 90 lecture total
This introductory course is designed to give the student thorough and intensive practice in speaking and listening to Chinese and reading and writing Chinese characters. The course will focus on communicative competence in situations relating to daily routines, home life, college life, and everyday activities such as meeting and describing people. Students are introduced to the culture of Chinese speakers in China and in other countries.

CIVIC AND COMMUNITY ENGAGEMENT (CCE)

CCE 1A INTRODUCTION TO CIVIC AND COMMUNITY ENGAGEMENT – 1 Unit
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or ESL 138 with a grade of C or higher
Class Hours: 18 lecture total
This course prepares students to design and lead service learning experiences. Students explore experiential education, theories of service and service learning, strategies for facilitation and effective teaching practice. The course integrates a practical experience in leading service learning projects through community or classroom placements. The course allows students to balance action with critical reflection on service learning practice.

COMMUNICATION STUDIES (CMST)

CMST 10 INTERPERSONAL COMMUNICATION – 3 Units
(formerly SPCH 10/10A)
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to the process of human communication with emphasis on interpersonal communication. Emphasis is placed on the psychological, social, cultural and linguistic factors that affect normal person-to-person interactions. Subjects covered are the understanding of ethical interpersonal communication based in communication theory and research, listening, verbal and nonverbal communication, self-awareness/self-concept, perception, emotions, relationships, communication climates, and conflict management. Students will increase their knowledge and skills in interpersonal communication. College level writing skills will be expected on all papers, outlines and short essays. This course may be offered in a distance education format.

CMST 20 INTERCULTURAL COMMUNICATION – 3 Units
(formerly SPCH 20)
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The purpose of this course is to develop the skills necessary to build and maintain positive communication and relationships across cultures. Students will focus on similarities and differences in communication behaviors. Perceptions, language usage, nonverbal style, thinking modes, and values all will be explored to see how they influence face-to-face communication between individuals of different cultures. This course may be offered in a distance education format.

CMST 30 ORAL INTERPRETATION – 3 Units (formerly SPCH 30)
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 54 lecture total
This course is an introduction to the process of human communication with emphasis on the oral interpretation of literature. Subjects covered are analyzing the literature, using nonverbal and verbal communication in the interpretation of literature and the understanding, appreciation and performance of prose and poetry. College level writing skills will be expected on all papers, outlines and short essays. This course includes oral performance of literature.

CMST 40 ARGUMENTATION AND DEBATE – 3 Units
(formerly SPCH 40)
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher; and completion of a class in public speaking or public speaking experience
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to the nature of argument and critical thinking, including methods of analysis, research, critical evaluation of reasoning and evidence, refutation, and debate as a practical application of argumentation. Basic principles are applied in a variety of formal and informal debate situations. Public speaking training and/or experience are recommended for enrollment. This course may be offered in a distance education format.

CMST 54 SMALL GROUP COMMUNICATION – 3 Units
(formerly SPCH 54)
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 54 lecture total (.5 to 1.5 units may be offered in the Distance Education format)
This course is an introduction to the process of human communication with an emphasis on small groups. Subjects covered are preparation for discussion, group participation, leadership, decision-making, interpersonal relations, managing diversity, critical thinking/problem-solving, managing conflict, and evaluation of group interaction. Students will be involved in group interactions and emphasis will be on practical experience. College level writing skills will be expected on all papers, outlines and short essays. A portion of this course may be offered in a distance education format.

CMST 60 PUBLIC SPEAKING – 3 Units (formerly SPCH 60/60A)
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to the process of human communication with an emphasis on small groups. Subjects covered are preparation for discussion, group participation, leadership, decision-making, interpersonal relations, managing diversity, critical thinking/problem-solving, managing conflict, and evaluation of group interaction. Students will be involved in group interactions and emphasis will be on practical experience. College level writing skills will be expected on all papers, outlines and short essays. A portion of this course may be offered in a distance education format.
This course is an introduction to the process of human communication with emphasis on public speaking. The subjects covered are: speech topic selection, audience analysis, information competency (e.g., researching, evaluating and using supporting materials), presentation outlining, principles of effective speech delivery, critical evaluation of speeches, and presentation of informative and persuasive speeches. Most students will have the opportunity to be recorded and to use presentational technology. College level writing skills will be expected on all papers, outlines, and short essays.

**CMST 22 BEGINNING TV PRODUCTION – 3 Units**
Grading: Pass/No Pass Option
Class Hours: 27 lecture/81 lab total
A basic course in the theory and operation of television broadcast equipment. Students will complete projects and activities so that they can effectively operate broadcast equipment and understand its engineering and production capabilities. This is a beginning course in television production.

**COM 30 INTRODUCTION TO DIGITAL AUDIO – 3 Units**
Grading: Pass/No Pass Option
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This is an introduction to the fundamentals of audio recording. Concepts covered will be the fundamentals of electricity, musical acoustics and audio theory. Course enrollment is open to communication and non-communication majors. Topics include: basics of electricity, acoustics, psychoacoustics, audio measurement terms and concepts, microphones, mixers, signal processing and hard disk recording. This course may be offered in a distance education format.

**COMPUTER INFORMATION SYSTEMS (CIS)**

**CIS 1 COMPUTER LITERACY WORKSHOP – 3 Units**
(formerly MIS 19)
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the Microsoft Operating System and Office Suite--further information will be provided on the first day handout.
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
This course is intended to help students achieve a degree of computer literacy through exposure to a variety of basic computer concepts including discussions of hardware, software, computer history, programming, computer ethics, and cultural implications. In addition, the student will be introduced to several hands-on applications such as systems software (Windows), word processing software (MS Word), spreadsheet software (MS Excel), database software (MS Access), and presentation software (MS PowerPoint). This course may be offered in a distance education format.

**CIS 2 INTRODUCTION TO COMPUTER SCIENCE – 4 Units**
(formerly MIS 20)
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
This course is designed as an introduction to computer programming and technology for those students planning on a career in the field of computer science or related disciplines. Common business applications are used to examine a wide range of methods for processing data in the interactive mode. The students will design, code, debug, and test programs in languages such as Machine, Assembler, Java, C++, Visual Basic and/or BASIC as assigned by the instructor. Computer history, hardware, software, processing, systems, programming languages, storage devices, careers, and impact on society will be explored to enable the student to become literate in the technical aspects of computing. This course may be offered in a distance education format.
CIS 20 ACCESS FOR WINDOWS – I – 1 Unit (formerly MIS 53)
Grading: Pass/No Pass Only
Advisory: Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Learning Resource Center and the Tehama campus. Students taking the Internet format of this course must have access to the same version of Microsoft Operating System and Office Suite being used in the course.
Class Hours: 13.5 lecture/13.5 lab total (when offered in the Distance Education format, hours will total 54)

This course introduces the concepts, principles, and creation of relational databases through multi-media lecture/demonstration/discussion using Microsoft ACCESS on an IBM compatible microcomputer. Topics to be covered will include: the principles and elements of the relational database; design of tables and data entry; maintenance of the database for data accuracy; queries for sorting, linking related tables, and selecting specific records; development of forms for viewing as well as entering data; and reports for presenting printed copies of the database and/or selected records. This course provides preparation for the Microsoft Certified Application Specialist Access exam (77-605). This course may be taken in a distance education format.

CIS 21 ACCESS FOR WINDOWS–II – 1 Unit (formerly MIS 54)
Grading: Pass/No Pass Option
Prerequisite: CIS 20 or CIS 23 with a grade of C or higher
Advisory: Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Computer access is provided on campus at the Learning Resource Center and the Tehama campus. Students taking the Internet format of this course must have access to the same version of Microsoft Operating System and Office Suite being used in the course.
Class Hours: 13.5 lecture/13.5 lab total (when offered in the Distance Education format, hours will total 54)

Designed to expand and improve database management skills through multi-media lecture/demonstration/discussion on an IBM compatible microcomputer. Instruction will include a review of database design concepts; queries involving linked tables, logical operators, calculated fields; crosstab, update, and summary queries; pivot tables and Pivot Charts; presentation of data through forms and reports (including field calculations and graphics); creating hyperlinks from Access to web pages; importing and exporting data; and advanced queries. This course provides preparation for the Microsoft Certified Application Specialist Access exam (77-605). This course may be offered in a distance education format.

CIS 23 FUNDAMENTALS OF SQL – 3 Units
Advisory: CIS 1 with a grade of C or higher
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)

This course is designed to provide individuals with a complete introduction to database concepts and the relational database model using Structured Query Language. Topics include normalization, design methodology, database administration, SQL commands, SQL functions and procedures. At the completion of this course, students should be able to understand a user’s database requirements and translate those requirements into a valid database design using SQL. The MySQL and the Microsoft Access versions of SQL are utilized in the class exercises and projects. This course may be offered in a distance education format.

CIS 31 CISCO CCNA 1 – NETWORKING FOR HOME AND SMALL BUSINESSES – 3 Units (formerly MIS 32, MIS 1)
Advisory: CIS 2 with a grade of C or higher
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)

This course is the first in a two-course series designed to prepare students for the Cisco Certified Entry Network Technician (CCENT) exam, and the course is the first of a four-course series designed to prepare students for the Cisco Certified Networking Associate (CCNA) exam. This course is offered by Shasta College as the Cisco Regional Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. The course teaches students the skills needed to obtain entry-level home network installer jobs. It also helps students develop some of the skills needed to become network technicians, computer technicians, cable installers, and help desk technicians. It provides a hands-on introduction to networking and the Internet using tools and hardware commonly found in home and small business environments. Labs include PC installation, Internet connectivity, wireless connectivity, file and print sharing, and the installation of game consoles, scanners, and cameras. This course may be offered in a distance education format.

CIS 32 CISCO CCNA 2 – WORKING AT A SMALL-TO-MEDIUM BUSINESS OR ISP – 3 Units (formerly MIS 32, MIS 2)
Prerequisite: CIS 31 with a grade of C or higher
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)

This course is the second in a two-course series designed to prepare students for the Cisco Certified Entry Network Technician (CCENT) exam, and the course is the second of a four-course series designed to prepare students for the Cisco Certified Networking Associate (CCNA) exam. This course is offered by Shasta College as the Cisco Regional Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. The course prepares students for jobs as network technicians. It also helps students develop additional skills required for computer technicians and help desk technicians. It provides a basic overview of routing and remote access, addressing, and security. It familiarizes students with servers that provide email services, www space, and authenticated access. Students learn soft skills required for help desk and customer service positions. Network monitoring and basic troubleshooting skills are taught in context. This course may be offered in a distance education format.

CIS 33 CISCO CCNA 3 – ROUTING AND SWITCHING IN THE ENTERPRISE – 3 Units (formerly MIS 33, MIS 3)
Prerequisite: CIS 32 with a grade of C or higher
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)

This course is the third in a four-course series designed to prepare students for Cisco Certified Networking Associate (CCNA) exam. The course is offered by Shasta College as the Cisco Regional Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. The course familiarizes students with the equipment applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. It also introduces advanced routing protocols including Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Other specific topics include Virtual LANs, Access Control Lists, and inter-VLAN routing. Hands-on exercises include configuration, installation, and troubleshooting. This course may be offered in a distance education format.

CIS 34 CISCO CCNA 4 – DESIGNING AND SUPPORTING COMPUTER NETWORKS – 3 Units (formerly MIS 34, MIS 4)
Prerequisite: CIS 33 with a grade of C or higher
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)

This course is the fourth in a four-course series designed to prepare students for Cisco Certified Networking Associate (CCNA) exam. The course is offered by Shasta College as the Cisco Regional Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. Learners progress through a variety of case studies and role-playing exercises, which include gathering requirements, designing basic networks, establishing proof-of-concept, and performing project management tasks. Lifecycle services; including upgrades, competitive analysis, and system integration, are presented in the context of pre-sales support. This course may be offered in a distance education format.

CIS 39 CISCO NETWORKING – CCNA SECURITY - 3 Units
Advisory: CIS 34 with a grade of C or higher or CCNA Certification
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
A Microsoft Certified IT Professional course with emphasis on installing and configuring Microsoft Exchange Server 2010. The terminology, planning, installation, configuration, administration, and troubleshooting an Exchange Server 2010 environment will be covered. The course is designed to prepare a student to take and pass the Microsoft Certification Exam 70-622 and for employment in the IT field. Note: Students who took CIS 55 with an earlier Server version will be able to enroll in Windows Server 2010.

CIS 57 INTRODUCTION TO COMPUTERS THROUGH GAMING – 3 Units
Class Hours: 36 lecture/54 lab total
This course is designed to get students interested in the computer field by teaching concepts as they relate to computer gaming. The course will cover the necessary computer troubleshooting and repair, networking, internet research, and overall computer knowledge needed to use sophisticated networked and online games. This course will include hands-on activities such as labs and projects to further learning and experience.

CIS 60 VISUAL BASIC PROGRAMMING – 3 Units (form. BUSI 27, MIS 27)
Advisory: CIS 2 with a grade of C or higher
Class Hours: 36 lecture/54 lab total
This course is intended to teach programming techniques using the Visual Basic language. Software life-cycle including design, development, styles, documentation, testing, and maintenance; procedural versus object oriented programming; and program design tools will be discussed. Students will be introduced to Visual Basic statements including, but not limited to data types, input, output, computation, looping, arrays, subroutines, file processing commands, form layout, objects, events, error handling, passing parameters by value and by reference, principles of testing and designing test data, and Visual Basic tools. Students will design, code, test, and execute several detailed business-oriented programs ranging from very simple to complex. This course may be offered in a distance education format.

CIS 61 C++ LANGUAGE PROGRAMMING – 3 Units (formerly BUSI 25, MIS 25)
Advisory: CIS 2 with a grade of C or higher
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
A study of the C++ Programming language. Emphasis is placed on programming theory and structure including data types, selection and iteration structures, functions, arrays, pointers, graphics, objects and classes. This course may be offered in a distance education format.

CIS 62 JAVA PROGRAMMING – 3 Units (formerly MIS 17)
Advisory: CIS 2 with a grade of C or higher
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
Java is a platform-neutral, object-oriented, and secure programming language that is quickly becoming the standard programming language for creating interactive content on the World Wide Web (WWW). This course covers Java programming language and the standard Java class libraries. This course may be offered in a distance education format.

CIS 63 ASSEMBLER LANGUAGE PROGRAMMING – 4 Units (formerly MIS 24)
Prerequisite: CIS 2 with a grade of C or higher
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 216)
In this course students will learn the functions and organization of a modern computer microprocessor including control unit, ALU, register files, cache memory, program counter, and instruction register. The internal binary representation of both data and instructions will be studied including ASCII, character, instruction formats, and two’s complement number system. Emphasis will be placed on understanding machine language instruction formats and developing computer programs in assembly language. Integer instruction sets will be the primary focus, but floating point instructions will be introduced. A pseudocoding technique will be learned which will facilitate development of code in assembly language. Programming techniques
and concepts will be studied including function calls, argument passing, use of the stack, array handling, sorting and searching, reentrant coding, recursive programming, exceptions and interrupts, pipelining, number conversions, and program debugging and documentation. This course is designed to meet transfer requirements in computer science to four-year universities. This course may be offered in a distance education format.

CIS 64 WEB PROGRAMMING USING JAVA/PHP/FLASH – 3 Units
Grading: Pass/No Pass Option
Advisory: CIS 2 with a grade of C or higher
Class Hours: 36 lecture/54 lab total
Java is a platform-neutral, object-oriented, and secure programming language that is quickly becoming the standard programming language for creating interactive content on the World Wide Web (WWW). PHP (Hypertext Preprocessor) is a programming language that allows web developers to create dynamic content that interacts with databases. Adobe Flash Professional is used to create content for the Adobe Engagement Platform (such as web applications, games and movies, and content for mobile phones and other embedded devices). This course covers Introductory Java Applets, PHP Scripting, and Adobe Flash programming. This course may be offered in a distance education format.

CIS 65 PROGRAMMING CONCEPTS AND METHODOLOGY USING C++ II – 3 Units
Grading: Pass/No Pass Option
Advisory: CIS 61 with a grade of C or higher
Class Hours: 36 lecture/54 lab total
A study in the C++ programming language. An emphasis is placed on application of software engineering techniques to the design and development of large programs; data abstraction and structures and associated algorithms. This course may be offered in a distance education format.

CIS 66 COMPUTER ARCHITECTURE AND ORGANIZATION – 3 Units
Advisory: CIS 61 with a grade of C or higher
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to the organization and behavior of modern computer systems at the assembly language level. Topics include numerical computation, the internal representation of simple data types and structures, data representation errors, and procedural errors. Students will learn how to map statements and constructs of high-level languages onto sequences of machine instructions. (C-ID COMP 142). This course may be offered in a distance education format.

CIS 67 DISCRETE STRUCTURES – 3 Units
Prerequisite: CIS 2 and CIS 61 with a grade of C or higher
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to the discrete structures used in Computer Science, with an emphasis on their applications. Topics covered include functions, relations and sets, basic logic, proof techniques, basics of counting, graphs and trees, and discrete probability. (C-ID COMP 152). This class may be offered in a distance education format.

CIS 72 FUNDAMENTALS OF LINUX – 3 Units
Advisory: CIS 2 and CIS 90 with a grade of C or higher
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
Fundamentals of Linux is an introductory and hands-on course for new users of the popular Linux operating system. Students will learn basic Linux systems administration skills using both command-line and graphical tools. Topics will include Linux installation and initialization, file system navigation and management, changing file permissions, the vi and emacs text editors, Bash, KDE, and GNOME shell features, process management, shell scripts, security, backup and recovery, printing, and basic networking including clients and network services. The course prepares students for the CompTIA Linux+ certification exam. This course may be offered in a distance education format.

CIS 73 PHOTOSHOP – 1 Unit
Grading: Pass/No Pass Option
Class Hours: 9 lecture/27 lab total
This course is designed to introduce students to image editing and graphic rendering and design using Adobe Photoshop. This course should enable students to develop their own graphics and text styles with little or no previous training in graphic arts. This course may be offered in a distance education format.

CIS 76 MOBILE APPLICATIONS DEVELOPMENT – 3 Units
Class Hours: 36 lecture/54 lab total (when offered in a Distance Education format, hours will total 108)
This course covers the development of applications for cell phones, tablets and other mobile devices such as the iPhone, the Blackberry, androïd and more. The course will prepare students to design, program and submit their applications for use on mobile devices. This course may be offered in a distance education format.

CIS 83 WEB DESIGN USING DREAMWEAVER – 2 Units
Grading: Pass/No Pass Option
Advisory: Basic knowledge of word processing and Windows
Class Hours: 27 lecture/27 lab total
This course is designed to introduce students to Web site development using Macromedia Dreamweaver. It will also introduce the students to Flash, Shockwave, CSS and Dynamic Web pages.

CIS 86 HTML – 3 Units
Grading: Pass/No Pass Option
Note: This class does not require any special software. Assignments may include work outside class, with the use of computer with standard browsers like Internet Explorer, Mozilla Firefox, Chrome, or Safari. Some computer access is provided on campus at the Learning Resource Center.
Class Hours: 54 lecture (when offered in the Distance Education format, hours will total 162)
This is a fundamental course on the Hypertext Markup Language for web page authoring, with lecture and hands-on classes. The topics include: the HTML "TAG" structure, the basic <HTML>, <HEAD> and <BODY> components of a web document, text formatting, creation of hyperlinks, inclusion of images, the use of tables, frame and form structures, and incorporation of multimedia, applets and javascripts. The editing, saving and publishing of web pages is performed with the basic tools provided with any of the currently available Windows platforms; no special software is needed for the class. This course may be offered in a distance education format.

CIS 90 A+ CERTIFICATION PREPARATION/CISCO IT ESSENTIALS I – 4 Units
Advisory: CIS 2 with a grade of C or higher
Note: This course replaces ELEC 20, 21, 22, 23 and 24 for A+ Certification
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 216)
This course provides the student with the knowledge and skills to pass the A+ Core Hardware and the A+ OS Technologies certification tests. The CompTIA A+ certification exams are nationally recognized, and measures essential competencies for an entry-level computer technician. Topics covered are microcomputer architecture, personal computer hardware, including Microsoft Windows installations, configurations and troubleshooting. Students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. This course may be offered in a distance education format.

CIS 92 INTRO. TO COMPUTER SECURITY – SECURITY + – 3 Units
Advisory: CIS 31 with a grade of C or higher
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
This course covers basic computer security concepts, risk management, and incident response practices. The course may be offered in a distance education format.
This course provides the student with background, requirements, policies and procedures for establishing and maintaining computer and information system security. Course elements include: Risk discovery and assessment; system planning with cost/benefit analyses; management policies; security practices and procedures within system life cycles and system recovery. The course will stress applied solutions to computer security problems, preparing students for the CompTIA Security+ Certification exam. This course may be offered in a distance education format.

**CIS 94 COMPUTER INFORMATION SYSTEMS WORKSITE LEARNING – 1-8 Units**

**Grading:** Pass/No Pass Option

**Limitation on Enrollment:** Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.

**Class Hours:** 75 hours paid or 60 hours non-paid per unit

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on-the-job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

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### CONSTRUCTION TECHNOLOGY (CONS)

**CONS 45 CAREER PLANNING AND LEADERSHIP FOR HEAVY EQUIPMENT OPERATORS - 2 Units**

**Class Hours:** 36 lecture total

Career opportunities and training requirements in the field of Heavy Equipment Operations will be examined. Students will be assisted in identifying career opportunities and developing career goals. Leadership skills dealing with organizing a meeting, public speaking, and leadership styles will be covered. This class is required of all Equipment Operations and Maintenance students.

**CONS 46 EQUIPMENT OPERATIONS & MAINTENANCE – 3 Units**

**(formerly AGRI 46/ENVR 46)**

**Grading:** Pass/No Pass Option

**Limitation on Enrollment:** Student must produce a negative test result in accordance with the Shasta College Student Substance Abuse Testing Policy at a student cost to be paid to the designated testing facility prior to enrolling.

**Class Hours:** 27 lecture/81 lab total

This course covers basic skill-level operation and maintenance of on- and off-road heavy equipment including agriculture and earth moving. Students will not be allowed to operate road equipment without license and driving record. Operational equipment used may include any of the following: dump truck, grader, backhoe, dozer, farm tractor, loader, excavator, forklift, and scraper.

**CONS 47 PROJECT CONSTRUCTION FOR EQUIPMENT OPERATIONS – 3 Units**

**(formerly ENVR 47, AGRI 47)**

**Grading:** Pass/No Pass Option

**Prerequisite:** CONS 46 and CONS 48 with a grade of C or higher

**Note:** Students will not be allowed to operate road equipment without a proper license and driving record. Students must be enrolled in the college’s random drug testing program.

**Class Hours:** 27 lecture/81 lab total

This class teaches intermediate skill-level operation and maintenance of off-road and on-road heavy equipment. It also covers common project construction techniques utilizing heavy equipment with an emphasis on moving soil to grade using cut and fill calculations. This class will also introduce the student to the Topcon 3D-MC2 GNSS (Global Navigation Satellite System).

**CONS 48 SURVEYING FOR EQUIPMENT OPERATORS – 2 Units**

**(formerly AGRI 48)**

**Grading:** Pass/No Pass Option

**Advisory:** MATH 100 with a grade of C or higher

**Class Hours:** 18 lecture/54 lab total

This course teaches basic surveying techniques and concepts with emphasis on application for heavy equipment operators. It involves basic problem solving, grade setting and checking, leveling, distance measurement, cut-fill ratio, and basic mapping. The course has a heavy emphasis on field work using various equipment and instruments including levels, compasses tapes, as well as various state-of-the-art electronic surveying devices. This course will prepare students for work on a heavy equipment construction crew.

**CONS 52 RESIDENTIAL ESTIMATING - 3 Units**

**Class Hours:** 54 lecture total

This course is designed for learning construction-estimating techniques for both small and medium sized construction projects. It includes estimating materials, costs, labor, taxes, insurance fees, overhead, profit, transportation and contingencies common in the residential construction industry. In this class students will be responsible for interpreting blueprints, developing budgets and estimates, as well as planning a construction project representative of current industry activity.

**CONS 53 MATERIALS OF CONSTRUCTION - 3 Units**

**Grading:** Pass/No Pass Option

**Class Hours:** 54 lecture total

A residential building materials course covering building materials from concrete to various types of roofing. Course covers code requirements, application and construction techniques. In this course, students will become familiar with traditional and current construction materials and their use.

**CONS 54 SURVEY OF THE BUILDING INDUSTRY - 3 Units**

**Note:** Field trips may be required

**Class Hours:** 54 lecture total

This course provides students fundamental instruction in the green environment, green construction practices, and green building rating systems. This course introduces students to career opportunities and lists the responsibilities and characteristics a worker should possess in the following construction careers: carpentry, electrical, heating, ventilating, and air conditioning (HVAC), plumbing, concrete, heavy equipment, sheet metal, painting and sprinkler fitting. Provides students with techniques for communicating effectively with co-workers and supervisors. Teaches the basic leadership skills required to supervise personnel. Discusses principles of project planning, scheduling, estimating, management, and presents several case studies for student participation.

**CONS 55A EQUIPMENT OPERATIONS SKILLS DEVELOPMENT – 1 Unit**

**(form. AGRI 56EH/AGRI 55/ENVR 55/CONS 55)**

**Grading:** Pass/No Pass Option

**Prerequisite:** CONS 46 with a grade of C or higher

**Limitation on Enrollment:** Student must produce a negative test result in accordance with Shasta College Student Substance Abuse Testing Policy at a student cost to be paid to the designated testing facility.

**Class Hours:** 54 lab hours per unit

The practical application of skills needed to be successful in equipment operation as it applies to excavations. Includes farm and industrial equipment such as wheel and crawler tractors, backhoes, and excavators. Service and adjustment will also be a part of this course.

**CONS 55B EQUIPMENT OPERATIONS PAD CONSTRUCTION – 1 Unit**

**Grading:** Pass/No Pass Option

**Prerequisite:** CONS 46 with a grade of C or higher

**Limitation on Enrollment:** Student must produce a negative test result in accordance with Shasta College Student Substance Abuse Testing Policy at a student cost to be paid to the designated testing facility.

**Class Hours:** 54 lab hours per unit

The practical application of skills needed to be successful in equipment operation as it applies to building pads. Includes farm and construction equipment such as bulldozers, loaders, dump trucks and motor grader. Hands-on training is emphasized in lab.
CONS 55C EQUIPMENT OPERATIONS ROADWAY CONSTRUCTION – 1 Unit
Grading: Pass/No Pass Option
Prerequisite: CONS 46 with a grade of C or higher
Limitation on Enrollment: Student must produce a negative test result in accordance with Shasta College Student Substance Abuse Testing Policy at a student cost to be paid to the designated testing facility.
Class Hours: 54 lab hours per unit

The practical application of skills needed to be successful in equipment operation as it applies to constructing roads and driveways. Includes farm and construction equipment such as water truck, crawler tractors, motor grader, compactor and scraper. Hands-on training is emphasized in the outdoor field lab.

CONS 55D EQUIPMENT OPERATIONS GLOBAL SATELLITE SYSTEM SKILLS – 1 Unit
Grading: Pass/No Pass Option
Prerequisite: CONS 46 with a grade of C or higher
Limitation on Enrollment: Student must produce a negative test result in accordance with Shasta College Student Substance Abuse Testing Policy at a student cost to be paid to the designated testing facility.
Class Hours: 54 lab hours per unit

This course focuses on the practical application of skills needed to be successful in equipment operation. Includes training and operating heavy equipment equipped with a Global Satellite Surveying System. This class emphasizes hands-on training with the Topcon 3D-MC2 GNSS machine control.

CONS 56 ESSENTIALS OF CONSTRUCTION - 3 Units
Class Hours: 54 lecture total

In this course, students will become familiar with traditional and current construction for safety obligations of workers, supervisors, and managers to ensure a safe workplace. Teach students the basic terms used in construction drawings, components, and symbols including the different types of drawings (civil, architectural, structural, mechanical, plumbing/piping, electrical, and fire protection) and instructs students on how to interpret and use drawing dimensions. Provide instruction in the current methods to move materials and equipment from one location to another on a job site. Describes inspection techniques and load-handling safety practices. Also reviews American National Standards Institute (ANSI) hand signals. This course covers OSHA-10 training requirements and application.

CONS 84 ANALYSIS OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS – 3 Units
Class Hours: 54 lecture total

An in-depth study of construction plans and specifications, including reading and interpreting construction documents from various private and public designers and determining quantities and types of materials used in both building and general engineering construction.

CONS 94 CONSTRUCTION TECH. WORKSITE LEARNING – 1-8 Units
Limitation on Enrollment: Students must have completed 30 units of required construction technology course work. Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksites Learning Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit

This course is designed for employment on approved jobs related to the students major and is supervised by a College representative to ensure that the work experience is of educational value. Good work habits through actual job performance is stressed. One to four units per semester may be taken depending on hours and nature of jobs. One unit of worksite learning credit is granted for 75 hours paid or 60 hours non-paid of on-the-job activity. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

CONS 148 SURVEYING AND GRADE SETTING FOR CONSTRUCTION – 1 Unit (formerly AGRI 148)
Grading: Pass/No Pass Only

Note: Previous construction experience will be helpful
Class Hours: 9 lecture/27 lab total

This is an advanced level course designed to give the participants practical skills and knowledge in the latest technology and applications related to surveying for construction and grade setting. The course will emphasize skills development and hands-on exercises as well as provide an opportunity for participants to discuss related topics with industry leaders.

CONS 149 CLASS A & B LICENSE TRAINING – 3 Units
(formerly ENVR 149, AGRI 149)
Grading: Pass/No Pass Option
Prerequisite: CONS 46 with a grade of C or higher
Note: Students will not be allowed to operate road equipment without a proper license and driving record. Students must be enrolled in the college’s random drug testing program. Students must produce a negative test result in accordance with Shasta College Student Substance Abuse Testing Policy at a student cost to be paid to the designated testing facility.
Class Hours: 27 lecture/81 lab total

This is an advanced level course designed to give the participants practical skills and knowledge in the operation and safety of on-road heavy equipment. The course will emphasize safe operation skills, pre-operation inspections and Department of Motor Vehicles Class A and B license training as it pertains to operating on-road heavy equipment.

CONS 150 INTRODUCTION TO RESIDENTIAL CONSTRUCTION - 3 Units
Class Hours: 54 lecture total

This course is recommended for entry-level students in the construction trades. Instruction will include tool safety, estimating costs, foundations, framing, plumbing, electrical, mechanical, and finish carpentry work. The student will gain a basic knowledge of the building trades.

CONS 160 CARPENTRY PRACTICES – 5 Units
(formerly CONS 151/152, 151A/151B)
Class Hours: 72 lecture/54 lab total

The purpose of this course is to train students to become competent in the construction field. Related information including interpretation of layout, estimation of construction costs and choice quantities of materials will be emphasized. Basic skills will be developed with each phase of the job: foundation, framing, exterior and interior trim, and cabinet work. Basic information of building codes will be covered.

CONS 161 ELECTRICAL, PLUMBING AND MECHANICAL SYSTEMS – 5 Units (formerly CONS 154/155)
Class Hours: 72 lecture/54 lab total

This course is designed to give the student a basic understanding of all electrical, plumbing and mechanical systems and to familiarize them with the applicable construction codes, materials and skills.

CONS 178 BUILDING CODES AND STANDARDS – 3 Units
Class Hours: 54 lecture total

This course is designed to provide the craftsperson, building, designer, and inspector with knowledge and insight regarding building regulations and requirements for minimum construction guidelines and specifications. It covers the use of the latest Uniform Building, Plumbing, Mechanical and Electric Codes and assists in using them to the builder’s advantage. The class also provides information on sources of assistance and publications to meet the needs for dwelling construction industry.

CULINARY ARTS (CULA)

The following courses will require extensive reading and math exercises.

CULA 45 BASIC FOOD PRODUCTION – 5 Units
Corequisite: CULA 50 or previous completion of CULA 50 with a grade of C or higher
Class Hours: 18 lecture/216 lab total

This is a beginning laboratory course in food preparation and presentation including cooking equipment, techniques, and safety procedures, using weights and measures, and interpretation of recipes.

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
Product identification and basic cooking techniques and procedures based on nutrition and classic preparation methods are presented. Students are provided the hands-on experience in preparing meals by following recipe structure and using and modifying recipes based on knowledge gained through the course. Food preparation is produced in a time-restricted setting to prepare for functioning in a commercial kitchen. This course is designed for students interested in pursuing a career in Culinary Arts/Culinary Management.

**CULA 46 ADVANCED FOODS – 5 Units**  
**Prerequisite:** CULA 45 and CULA 50 with a grade of C or higher  
**Class Hours:** 18 lecture/216 lab total  
This course examines advanced principles of food preparation of foods served in restaurants. Emphasis given to the planning and preparation of food products relating to restaurants, hotels, and specialty food operations.

**CULA 48 GOURMET FOOD PREPARATION – 3 Units**  
**Prerequisite:** CULA 45 and CULA 50 with a grade of C or higher  
**Class Hours:** 27 lecture/81 lab total  
This course is designed to teach advanced food preparation techniques and methods. Students learn the science of scratch cookery through small batch assignments. Areas of focus include gourmet items, buffet specialties, hors d’oeuvres, and canapés, while practicing presentation and garnishing. Small scale preparation is produced in a time-restricted quality-minded setting. This course is for students pursuing a career in culinary arts/culinary management.

**CULA 49 MENU PLANNING AND COST ANALYSIS – 2 Units**  
**Class Hours:** 36 lecture total (when offered in the Distance Education format, hours will total 108)  
This course is designed to summarize the basic principles of menu planning and layout for various food service operations. Topics included are pricing, nutrition, and types of menus. This course may be offered in a distance education format.

**CULA 50 SANITATION & SAFETY (formerly CULA 150) – 2 Units**  
**Advisory:** ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher  
**Class Hours:** 36 lecture (when offered in the Distance Education format, hours will total 108)  
This course provides safety and sanitation principles and practices for personal and institutional application. Methods and techniques for handling foods safely are examined including food preparation, storage, service, and the prevention of food contamination. Also covered are the importance of microorganisms, food borne illness and food allergies, sanitation and equipment, accident prevention, crisis management, and pest management. Compliance with city, state, and federal health regulation as embodied in HACCP (Hazard Analysis Critical Control Point) are emphasized, along with the supervisor’s responsibilities in maintaining high standards of these principles. This course will provide updated information on USDA, FDA, Codex, and ISO 24,000 regulations and their relationship to food borne illness. The student receives a certificate of completion from the Educational Foundation of the National Restaurant Association upon the successful completion of this course with a passing grade of 75% or higher. This course will provide the safe use of culinary equipment and its proper use to avoid accidents. This course is required for all Culinary Arts/Culinary Management students and is advised to be taken as the first course prior to all other culinary courses or in conjunction with the first few. It may be used for American Culinary certification and recertification, and is required for the Dietary Service Supervisor Certificate offered by the Nutrition Department. This course may be offered in a distance education format.

**CULA 55 PURCHASING – 2 Units (formerly CULA 155)**  
**Advisory:** ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher  
**Class Hours:** 36 lecture total (when offered in the Distance Education format, hours will total 108)  
This course will cover the function of purchasing from the viewpoint of management. It discusses channels of distribution, buying techniques, specification writing and other principles needed to perform this critical activity. This course may be offered in a distance education format.

**CULA 59 CATERING AND EVENT PLANNING – 3 Units**  
**Prerequisite:** CULA 45 and CULA 50 with a grade of C or higher  
Advisory: ENGL 280 with a grade of C or higher or English Placement Level 5 or higher; concurrent enrollment in CULA 94  
**Class Hours:** 36 lecture/54 lab total  
This course provides practical experiences designed to supplement the basic curriculum and includes special cooperative educational opportunities set up with the College and approved Chefs. Experiences include special and short order food preparation and service, buffet service, catering, dining room management and service and receiving and storeroom procedures. Large scale and small quantity preparation is produced in a time restricted quality minded setting. This course is for students pursuing a career in culinary arts/culinary management.

**CULA 60 BEVERAGE MANAGEMENT – 2 Units**  
**Class Hours:** 36 lecture total (when offered in the Distance Education format, hours will total 162)  
Identification, production, purchasing, and service of spirits, wine and beer products. Marketing, menu development, and cost controls of a beverage operation. Special emphasis on staffing, training, and legal regulations for beverage sales. This course may be offered in a distance education format.

**CULA 65 DINING ROOM SERVICE – 3 Units**  
**Class Hours:** 27 lecture/81 lab  
In this course, students will learn in a live environment, the skills and techniques of the “front of the house” service staff. Throughout this course, students will rotate through basic dining room positions, learning and practicing their skills in front of dining room guests, in our public dining facility. Emphasis will be on the basic serving techniques and on customer satisfaction.

**CULA 66 WINE WITH FOOD – 2 Units**  
**Limitation on Enrollment:** Students must be 21 years of age or older to take this course.  
**Class Hours:** 36 lecture total  
This course is designed to teach students the applied approach to match wine and food from different parts of the world using flavors, textures, and components present in food and wine as complementing strategies. Emphasis on menu planning, preparation of foods, cooking methods, and tasting wines with food. Concepts can be applied to home preparation of food with wine, restaurant food production with wine, and dining out.

**CULA 73 INTRODUCTION TO WINES – 2 Units**  
**Grading:** Pass/No Pass Option  
**Limitation on Enrollment:** Students must be 21 years of age or older to take this course.  
**Class Hours:** 36 lecture total  
Characteristics of wines from the major varietals emphasized. Identification of wines from the wine districts of California, France, Germany, and Italy. The concept of food and wine pairing will also be evaluated.

**CULA 74 WINE MAKING I – 2 Units**  
**Grading:** Pass/No Pass Option  
**Limitation on Enrollment:** Students must be 21 years of age or older to take this course.  
**Class Hours:** 27 lecture/27 lab  
This is a course in the basic science and technology of winemaking. It is intended for the entrepreneur exploring business opportunities in the grape wine industry, and/or the prospective small winery employee, as well as the home winemaker, interested in career or skills development. Hands-on winemaking from crush through fermentation will be covered.

**CULA 75 PASTRY – 2 Units**  
**Prerequisite:** CULA 50 and CULA 172 with a grade of C or higher  
**Class Hours:** 18 lecture/54 lab total  
This course covers fundamental baking skills for students who intend to specialize in baking and pastry making for commercial production. Production of yeast and quick breads, cakes, cookies, pies, and pastries, as well as decorating and icings are undertaken, with emphasis placed on more sophisticated items and gourmet specialties including cakes and pastries for weddings, birthdays and special occasions. Gourmet baked items and pastries are produced in a time-
restricted quality-minded setting. This course is for students pursuing a career in culinary arts/culinary management.

**CULA 76  WINE MAKING II – 2 Units**
**Grading:** Pass/No Pass Option  
**Advisory:** CULA 74 with a grade of C or higher  
**Limitation on Enrollment:** Students must be 21 years of age or older to take this course.  
**Class Hours:** 27 lecture/27 lab

This is an intermediate course in the science and technology of winemaking. It is intended for the entrepreneur exploring business opportunities in the grape wine industry, and/or the prospective small winery employee, as well as the home winemaker, interested in career or skills development. This course encompasses winemaking in the realms of wine analysis, chemistry, and treatments.

**CULA 78  SENSORY EVALUATION OF WINE – 2 Units**
**Grading:** Pass/No Pass Option  
**Advisory:** CULA 73 or CULA 66 with a grade of C or higher  
**Limitation on Enrollment:** Students must be 21 years of age or older to take this course.  
**Class Hours:** 36 lecture

This course will provide the student a better understanding of wine by learning about the senses and how to use them. Students will learn how to describe wines precisely, practice tasting varietals, learn how to judge good and bad wines, and how a wine’s sensory characteristics are created in the vineyard and the winery.

**CULA 80  WINE SALES AND MARKETING - 3 Units**
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lecture (when offered in the Distance Education format, hours will total 162)

This course explains the principles and strategies of wine marketing and sales. The information covered will help winery personnel or distributors understand this unique market. Students will develop a successful marketing plan. This course may be offered in a distance education format.

**CULA 88  WINES OF THE NORTH STATE - 1 Unit**
**Grading:** Pass/No Pass Option  
**Limitation on Enrollment:** Students must be 21 years of age or older to take this course  
**Advisory:** CULA 73 with a grade of C or higher  
**Class Hours:** 18 lecture

A short course, including history, viticulture practices and winemaking styles of the North State wines of California, specifically Shasta, Tehama, and Trinity Counties. Sensory evaluation of representative wines is also covered.

**CULA 94  CULINARY ARTS WORKSITE LEARNING – 1-8 Units**
**Limitation on Enrollment:** Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.  
**Class Hours:** 75 hours paid or 60 hours non-paid per unit

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

**CULA 97  SPECIAL TOPICS IN CULINARY ARTS - .5-2 Units**
**Grading:** Pass/No Pass Option  
**Class Hours:** 9-36 lecture total

This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in culinary arts. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes.

**CULA 98  SPECIAL LAB TOPICS IN CULINARY ARTS – .5-2 Units**
**Grading:** Pass/No Pass Option  
**Class Hours:** 27-108 lab total

This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in culinary arts. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes.

**CULA 159  STOCKS, SOUPS, SAUCES & BASIC CULINARY PREPARATION – 2 Units**
**Corequisite:** CULA 50 or previous completion of CULA 50 with a grade of C or higher  
**Class Hours:** 18 lecture/54 lab total

Demonstration and practical application in the preparation of various stocks, soups, and sauces involving different methods of cooking meat, fish, seafood, poultry and vegetables. The uses of culinary terms, equipment and hand tools will be applied to preparation of stocks, soups, and sauces. Emphasis is placed on the development, organization and carrying out of recipe standardization, need and procurement of supplies, work stations, and attractive service.

**CULA 161  THE ART OF GARDE MANGER (PREPARATION AND PRESENTATION OF GARNISHED FOODS) – 2 Units**
**Corequisite:** CULA 50 or previous completion of CULA 50 with a grade of C or higher  
**Class Hours:** 18 lecture/54 lab total

This laboratory course builds on skills previously learned while the student studies traditional upscale pantry preparation. Topics covered include hors d’oeuvres, canapés, pates, terrines and charcuterie. Artistic displays including buffet tables, centerpieces, culinary showpieces are presented. The student gains practical experience preparing and serving theme buffets for guests. Small and large scale preparation is produced in a time-restricted quality-minded setting. This course is for students pursuing a career in culinary arts/culinary management.

**CULA 172  BAKING – 2 Units**
**Corequisite:** CULA 50 or previous completion of CULA 50 with a grade of C or higher  
**Class Hours:** 18 lecture/54 lab total

This course covers fundamental baking skills for students who intend to specialize in baking and pastry making for commercial production. Production of yeast and quick breads, cakes, cookies, pies, and pastries, as well as decorating and icings are undertaken. Gourmet baked items and pastries are produced in a time-restricted quality-minded setting. This course is for students pursuing a career in culinary arts/culinary management.

**DANCE (DAN)**

**DAN 10  DANCE COMBINATIONS – 1 Unit**
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lab total

Introduction to the fundamental movement, technique, terminology, choreography, and philosophy of jazz, ballet, and modern dance.

**DAN 15  FUNDAMENTALS OF CHOREOGRAPHY – 1 Unit**
**Grading:** Pass/No Pass Option  
**Advisory:** Previous dance experience or concurrent enrollment in dance classes  
**Class Hours:** 54 lab total

Introduction to the fundamentals of choreography for concert dance. This course will explore the elements of space and its use. Students portray a topic of interest through a dance discipline, experimenting with movement style and choice of music accompaniment. The course
will include analysis and critique of the student’s own work, the work of other students and of professional and historic choreography. Students will have the opportunity to audition completed works for Shasta College Dance Concerts.

DAN 16 INTERMEDIATE CHOREOGRAPHY – 1 Unit
Grading: Pass/No Pass Option
Advisory: DAN 15 with a grade of C or higher or previous dance experience
Class Hours: 54 lab total
This is a continuation of the Fundamentals of Choreography. The class will expand on concert dance into commercial work and musical theater; working within the parameters of someone else’s criteria. The course will elaborate on the elements of space and its use. Students may come up with their own topics of interest, using a dance discipline of their choice for choreography. Analysis and critique of the works presented will include professional and historical choreography references. Students will be invited to audition completed works for presentation at the Shasta College dance concerts.

DAN 17 ADVANCED CHOREOGRAPHY AND DANCE ANALYSIS – 1 Unit
Grading: Pass/No Pass Option
Advisory: DAN 16 with a grade of C or higher
Class Hours: 54 lab total
This course is an advanced class in choreography. Students will have the opportunity to apply the knowledge and skills they have acquired through the technique and choreography classes to create a project that is complete for presentation. As part of the choreographic training, the student will have the option to collaborate with students from other artistic disciplines, sometimes using digital tools to blend dance with video and sound, design their own lighting and prepare a piece for public performance.

DAN 20A BEGINNING MODERN DANCE – 1 Unit
(formerly DAN 20, PE 40, HPE 36AB)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
Fundamental movement, techniques, terminology, basic rhythm, and simple choreography of modern dance.

DAN 20B INTERMEDIATE MODERN DANCE - 1 Unit
(formerly DAN 21, PE 43, HPE 47AD, HPE 36CD)
Grading: Pass/No Pass Option
Advisory: DAN 20A with a grade of C or higher
Class Hours: 54 lab total
Movement, techniques, terminology, basic rhythm, and choreography of modern dance at an intermediate level.

DAN 20C ADVANCED INTERMEDIATE MODERN DANCE - 1 Unit
Grading: Pass/No Pass Option
Advisory: DAN 20B with a grade of C or higher
Class Hours: 54 lab total
A class for modern dance students interested in more technical and sophisticated performing and choreography.

DAN 20D ADVANCED MODERN DANCE - 1 Unit
Grading: Pass/No Pass Option
Advisory: DAN 20C with a grade of C or higher
Class Hours: 54 lab total
A class for modern dance students interested in advanced choreography and performance experience.

DAN 30A BEGINNING BALLET – 1 Unit
(formerly DAN 30, PE 41, HPE 37AB)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This course is an introduction to the art form of classical concert dance and includes beginning classical technique, emphasis on body placement; introduction to classical ballet terminology used worldwide, recognition of the musical rhythms that accompany specific historic steps, beginning choreography of most used ballet step combinations and patterns.

DAN 30B INTERMEDIATE BALLET – 1 Unit
(formerly DAN 31, PE 44, HPE 45AD, HPE 37CD)
Grading: Pass/No Pass Option
Advisory: DAN 30A with a grade of C or higher
Class Hours: 54 lab total
This is an intermediate level course of classical concert dance and includes intermediate level techniques, recognition of differences in classroom labels between different schools of ballet, developing ability in coordination of steps, musical rhythms and recognition of ballet steps, combinations and patterns.

DAN 30C ADVANCED INTERMEDIATE BALLET – 1 Unit
(formerly DAN 31, PE 44, HPE 45AD, HPE 37CD)
Grading: Pass/No Pass Option
Advisory: DAN 30B with a grade of C or higher
Class Hours: 54 lab total
This is a class for ballet students interested in developing a more technical and sophisticated aspect of classical dance. Students will be instructed in the process of the classical exercises and be able to identify their purpose. Students will gain knowledge of the different schools of thought and the terminology of classical dance. There are performance and choreographic requirements and opportunities.

DAN 30D ADVANCED BALLET, POINTE AND PARTNERING – 1 Unit (formerly DAN 32)
Grading: Pass/No Pass Option
Advisory: DAN 30C with a grade of C or higher
Class Hours: 54 lab total
This is an advanced level of ballet for the student who is ready to approach the art of classical technique that involves dancing on pointe and the fundamentals of partnering another dancer. Students will be taught original variations from past masters as well as contemporary work of choreographers working today. Performance opportunities are available each semester.

DAN 40A BEGINNING JAZZ DANCE – 1 Unit
(formerly DAN 40, PE 42 and HPE 72AB)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
Fundamental movement, techniques, terminology, basic rhythm, and simple choreography of jazz dance.

DAN 40B INTERMEDIATE JAZZ DANCE – 1 Unit
(formerly DAN 41, PE 45, HPE 72CD, HPE 46AD)
Grading: Pass/No Pass Option
Advisory: DAN 40A with a grade of C or higher
Class Hours: 54 lab total
Movement, techniques, terminology, rhythm, and choreography of jazz dance at an intermediate level.

DAN 40C ADVANCED INTERMEDIATE JAZZ DANCE – 1 Unit
Grading: Pass/No Pass Option
Advisory: DAN 40B with a grade of C or higher
Class Hours: 54 lab total
A class for jazz dance students interested in a more technical and sophisticated performing and choreography.

DAN 40D ADVANCED JAZZ DANCE – 1 Unit
Grading: Pass/No Pass Option
Advisory: DAN 40C with a grade of C or higher
Class Hours: 54 lab total
A class for jazz dance students interested in advanced technical and sophisticated performing and choreography.

DAN 50A BEGINNING TAP DANCE – 1 Unit (formerly PE 50, 46)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This class will introduce beginning sounds of tap. It will build technique, both physical and mental of this classic art form.
DENTAL (DNTL)

DNTL 10 ORAL BIOLoGY - 3 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Class Hours: 54 lecture/18 lab total
The study of embroyology and histology of oral structural formation, clinical recognition of normal oral structures, the physiological and structural functions of teeth and supporting tissues, and oral anatomy relative to proper dental hygiene procedures.

DNTL 11 ORAL RADIOLOGY - 3 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Class Hours: 36 lecture total
This course focuses on radiation physics, biology, protection, quality, dental techniques, film processing and mounting, interpretation of errors, recognition of anatomical landmarks, and evidence of pathologies. Students practice skills on radiographic models and student patients in a clinical setting; all skills are taught to clinical competence. This course builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DNTL 12 HEAD AND NECK ANATOMY - 2 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Class Hours: 27 lecture/27 lab total
This course studies the anatomical structures of the head and neck regions and relates these structures to the clinical practice of Dental Hygiene.

DNTL 13 DENTAL HEALTH EDUCATION/SEMINAR – 2 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Class Hours: 36 lecture total
Principles and practices of prevention and control of dental disease with emphasis on nutrition, and plaque control, motivation and chairside patient education.

DNTL 14 INTRODUCTION TO CLINIC – 4 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Class Hours: 36 lecture/108 lab total
Introduction to all clinical procedures and skills needed for Dental Hygiene.

DNTL 20 LOCAL ANESTHESIA AND NITROUS OXIDE – 2 Units
Prerequisite: DNTL 10, DNTL 11, DNTL 12, and DNTL 14 with a grade of C or higher
Class Hours: 18 lecture/54 lab total
Covers the pharmacology and physiology of local anesthetic agents and effective technique in delivery of these agents to the oral cavity. Focuses on the anatomy of the nerves, physiology of nerve conduction, and how anesthesia works. Discusses the prevention and management of associated emergencies. Skills are practiced in a clinical setting on student patients: all skills are taught to clinical competence.

DNTL 21 GENERAL AND ORAL PATHOLOGY – 4 Units
Prerequisite: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14 with a grade of C or higher
Class Hours: 72 lecture total
Pathological processes of inflammation, immunology defense, degeneration, neoplasm, developmental disorders, healing and repair. Recognition of abnormalities in the human body with a special emphasis on normal and abnormal conditions in the oral cavity.

DNTL 23 PATIENT MANAGEMENT AND GERIATRICS – 2 Units
Prerequisite: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14 with a grade of C or higher
Class Hours: 36 lecture total
This course teaches characteristics of individual patients, motivation, and management of same and interpersonal communication. Treatment of the compromised patient and myofunctional therapy is presented.

DNTL 24 CLINICAL PRACTICE I – 4 Units
Prerequisite: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14 with a grade of C or higher
Class Hours: 18 lecture/162 lab total*
*Lab hours may be listed as TBA in course schedule. Specific times and meeting location(s) will be provided in the First Class Handout.
Provides beginning clinical experience in the treatment of adult and child patients. Various clinical procedures utilizing scaling and polishing techniques, oral inspection, cancer screening, dental and periodontal charting, principles of ultrasonic scaling, plaque control instruction and fluoride application will be taught.

DNTL 25 CLINIC I SEMINAR – 2 Units
Prerequisite: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14 with a grade of C or higher
Class Hours: 36 lecture total
Provides expanded learning opportunities related to clinical dental hygiene care through lecture, demonstrations and guest speakers.

DNTL 26 NUTRITION IN DENTISTRY – 1 Unit
Prerequisite: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14 with a grade of C or higher
Class Hours: 18 lecture total
Provides the basic principles of nutrition and their relationship to dental health. To teach students to perform dietary surveys on clinic patients and to plan nutritional dietary programs.

DNTL 27 SUMMER CLINIC 27 – 1 Unit
Grading: Pass/No Pass Only
Prerequisite: Completion of DNTL 11, DNTL 12, DNTL 14, DNTL 20, DNTL 23, DNTL 24
Class Hours: 54 lab total
This course will provide students with the opportunity to become more proficient in the clinical skills learned and practiced during previous clinical courses including instrumentation techniques, patient assessment, and administration of local anesthesia.

DNTL 30 PERIODONTOLOGY I – 3 Units
Prerequisite: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26 with a grade of C or higher
Class Hours: 54 lecture total
A course in Periodontology teaches the scientific study of the structures and function of the periodontium in both health and disease, the etiology and principles of periodontal diseases, examination procedures, treatment and preventative measures.

DNTL 31 PHARMACOLOGY – 2 Units
Prerequisite: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26 with a grade of C or higher
Class Hours: 36 lecture total
Focuses on pharmacology as it affects the clinical practice of dentistry. Emphasizes drugs commonly used in dentistry, for treatment of common systemic and oral diseases, and for emergency treatment: effects, administration, and toxicology. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DNTL 32 DENTAL MATERIALS – 2 Units
Prerequisite: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26 with a grade of C or higher
Class Hours: 36 lecture/18 lab total
Presents the history, composition, chemical and physical properties and use of materials commonly utilized in the dental laboratory and dental operator. Builds on dental sciences. Provides laboratory experience in performing common dental laboratory procedures and prepares for the clinical practice of extended functions. All skills are taught to competence.

DNTL 33 ADVANCED CLINICAL TOPICS – 2 Units
Prerequisite: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26 with a grade of C or higher
Class Hours: 36 lecture total
This course is designed to present advanced topics and current technology used in the dental and dental hygiene field such as soft tissue curetage, root morphology and periodontal instrumentation, oral brush biopsy, non-surgical periodontal dressings, care for dental implants, oral maxillofacial surgery and orthodontics.

**DNTL 34 CLINICAL PRACTICE II – 4 Units**  
**Prerequisite:** DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26 with a grade of C or higher  
**Class Hours:** 216 lab total  
Advanced skills of dental hygiene practice, including assessment and treatment are practiced on patients in a clinical setting, with emphasis on planning and comprehensive treatment; all skills are taught to clinical competence. Expands on the procedures and techniques introduced in previous preclinical and clinical courses. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

**DNTL 35 CLINICAL II SEMINAR – 1 Unit**  
**Prerequisite:** DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26 with a grade of C or higher  
**Class Hours:** 18 lecture total  
Provides an expanded learning experience through discussion of dental hygiene care for the culturally diverse, tobacco cessation counseling, and seminar study of clinical cases. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

**DNTL 40 PERIODONTOLOGY II – 1 Unit**  
**Prerequisite:** DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34 and DNTL 35 with a grade of C or higher  
**Class Hours:** 18 lecture total  
A course to enhance assessment skill applicable in the treatment of patients with advanced periodontal disease. To teach the dental hygienist ethical and clinical responsibility in periodontal disorders and to teach the relationship of the specialty practice of periodontics within the broad scope of dentistry and the legal ramifications thereof.

**DNTL 41 PRACTICE AND FINANCIAL MANAGEMENT – 1 Unit**  
**Prerequisite:** DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34, and DNTL 35 with a grade of C or higher  
**Class Hours:** 18 lecture total  
Office practice management; ethical and legal aspects of dentistry and dental hygiene, and business matters relating to dental hygiene practice.

**DNTL 42 CLINIC III SEMINAR – 2 Units**  
**Prerequisite:** DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34, and DNTL 35 with a grade of C or higher  
**Class Hours:** 18 lecture/54 lab total  
Provides an expanded clinical experience exposure through independent study or additional clinical experience.

**DNTL 43 CLINICAL PRACTICE III – 4 Units**  
**Prerequisite:** DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34 and DNTL 35 with a grade of C or higher  
**Class Hours:** 216 lab total  
Provides students with the opportunity to become more proficient in the clinical skills learned and practiced in previous clinical courses and to prepare them for success on their state and national board examinations.

**DNTL 44 COMMUNITY ORAL HEALTH – 3 Units**  
**Prerequisite:** DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34 and DNTL 35 with a grade of C or higher  
**Class Hours:** 54 lecture total  
Introduces students to the principles and practices of dental public health. The emphasis is placed on the role of the dental hygienist as an innovator of, and an educator in community health programs. Public health issues will be introduced and completely discussed.

**DNTL 45 ETHICS AND JURISPRUDENCE – 2 Units**  
**Prerequisite:** DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34 and DNTL 35 with a grade of C or higher  
**Class Hours:** 36 lecture total  
The study of the fundamental factors necessary to be employed and practice within the ethical and legal framework of the State Dental Practice Act and the Code of Ethics of the American Dental Association.

**DNTL 54 SUMMER CLINIC 54 – 1 Unit**  
**Grading:** Pass/No Pass Only  
**Prerequisite:** DNTL 14, DNTL 20, DNTL 24, DNTL 30, DNTL 34, DNTL 43 with a grade of C or higher  
**Class Hours:** 54 lab total  
This course will provide students with the opportunity to become more proficient in the clinical skills learned and practiced during previous clinical courses and to prepare for success on their state clinical licensing examinations. This course is offered on a pass/no pass basis only.

**DIESEL TECHNOLOGY (DIES)**  
**NOTE:** STUDENTS MUST PROVIDE THEIR OWN HAND TOOLS FOR TECHNICAL CLASSES IN THE DIESEL TECHNOLOGY AND AUTOMOTIVE TECHNOLOGY MAJORS IN ORDER TO COMPLETE REQUIRED COURSE OBJECTIVES.

**DIES 48 HYDRAULICS – 3.5 Units**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lecture/27 lab total  
A study of the theory, application, and component parts of hydraulic systems. This course will emphasize fundamentals in dismantling, inspection, and troubleshooting hydraulic components and complete systems. Closed-loop application, inspection and trouble-shooting will be studied. This course is required for all Diesel Technology, Welding Technology and Equipment Operations and Maintenance majors.

**DIES 49 ADVANCED HYDRAULICS (formerly AGRI 49) – 3 Units**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 27 lecture/81 lab total  
This course will emphasize the application of cylinders and motor used to control fluid power systems. Hydraulic-pneumatic circuitry, maintenance, repair, and closed loop drives will be covered. Recommended for Equipment Operations and Maintenance, production, agriculture, and diesel majors.

**DIES 94 DIESEL TECHNOLOGY WORKSITE LEARNING – 1-8 Units**  
**Limitation on Enrollment:** Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.  
**Class Hours:** 75 hours paid or 60 hours non-paid per unit  
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

**DIES 160 DIESEL ENGINE ELECTRONIC CONTROL – 4 Units**  
**Class Hours:** 54 lecture/54 lab total  
This course will cover electronic diesel engine control systems as related to testing, calibrating and diagnostic procedures. The use of industry software generated computer programs will be utilized.

**DIES 161 DIESEL TECHNOLOGY FIELD TRAINING – 2 Units**  
**Prerequisite:** DIES 162 with a grade of C or higher  
**Limitation on Enrollment:** Student must be 18 years of age, provide his/her own transportation, DMV readout, and must be prepared to take a physical including drug test at the repair facility’s request.
Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)

This course is designed to prepare the student for a career in the diesel technology field. Classroom instruction will include work-site expectations, interview techniques, and assessment of work performance. The student will be placed with local industry at various diesel repair facilities to expose them to actual industry standards. This course may be offered in a distance education format.

DIES 162 HEAVY DUTY POWER TRAIN – 4 Units
Class Hours: 54 lecture/54 lab total

This course covers shop practices in service, repair, adjustment and preventive maintenance of heavy duty drive trains.

DIES 164 DIESEL PERFORMANCE ANALYSIS – 4 Units
Class Hours: 54 lecture/54 lab total

Diesel fuel systems, composition of fuels, combustion chamber design, manifolds, fuel and air filters, fuel transfer pumps, fuel-injection pumps and injectors are taught in this class. Mechanical and electronic fuel controls will be analyzed. You will learn testing, calibrating and diagnostic procedures, using modern test equipment. Performance analysis of diesel engines as related to the California Air Resources Board Heavy Duty Vehicle Smoke and Tampering Inspection Program as mandated by Senate Bill 1997 of 1998 will be covered.

DIES 166 DIESEL ENGINES – 6 Units
Prerequisite: DIES 164 with a grade of C or higher
Class Hours: 54 lecture/162 lab total

This course is an in-depth study of various diesel engines, theory of design, operation and application. This lab will provide training in the disassembly and inspection of diesel engines, practical assembly procedures and technical analysis of engine services.

DIES 170 HEAVY DUTY BRAKING SYSTEMS – 4 Units
Class Hours: 54 lecture/54 lab total

This course will cover the basic design and repair of foundation brakes and air systems pertaining to heavy duty vehicles.

DIETARY SERVICES SUPERVISOR (DSS)

DSS 10 FOOD PRODUCTION MANAGEMENT – 3 Units
Grading: Pass/No Pass Option
Advisory: CULA 50 with a grade of C or higher
Class Hours: 54 lecture (when offered in the Distance Education format, hours will total 162)

This course will cover effective management skills in food production, food purchasing policies and procedures, and the role of the Dietary Service Supervisor. Basic institutional cooking skills will be presented including using weights and measures, choosing ingredients and food preparation methods. Students will be involved in menu planning and costing, recipe standardization and recipe costing. Instruction on the selection, safety and usage of institutional equipment will be provided. This course may be offered in a distance education format.

DSS 63 DIETARY SERVICE SUPERVISOR OPERATIONS AND MANAGEMENT – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course includes methods of supervision and leadership which are applicable to the food service industry. Methods and techniques of recruitment, selection, training and evaluation of personnel are covered. Record maintenance, enforcement of safety and sanitary standards; supervision of food service employees are stressed. This course may be offered in a distance education format.

DSS 94 DSS CERTIFICATE WORKSITE LEARNING – 1-8 Units
Prerequisite: DSS 63 and CULA 50 with a grade of C or higher
Corequisite: DSS 10 and FSS 27 or previous completion of DSS 10 and FSS 27 with a grade of C or higher.

1. All students participating in DSS 94 must pass a drug screening and background check prior to enrollment in the course. Students are financially responsible for meeting these requirements according to the established program process.

2. Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksire Learning Classes.

Class Hours: 75 hours paid or 60 hours non-paid per unit

Students must complete 150 hours of verified, supervised field experience in a healthcare setting as required by the CA Department of Public Health (CDPH) for the DSS Certificate, and must follow the current requirements and regulations of the CDPH. The course stresses good work habits and meeting of required competencies through actual on-the-job performance with a preceptor. Students must complete a minimum of 150 hours, but may complete up to a maximum of 16 units in this WSL course in order to meet the required competencies.

EARLY CHILDHOOD EDUCATION (ECE)

ECE 1 HUMAN DEVELOPMENT – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course involves a study of development and behavior throughout the human life span. Classic and up-to-date research on the physical, cognitive, and psychosocial domains will be presented. Theories will be integrated with practical application concepts throughout the course, underscoring the importance of life-long learning and adaptation. This course may be offered in a distance education format.

ECE 2 CHILD, FAMILY, COMMUNITY – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

Child, Family, Community introduces the student to the interacting influences of family life and community experiences, with consideration of historical and socio-cultural factors, that affect the developing child. The course focuses on the primary social relationships and social settings within the context of dissimilar family patterns. The study encourages understanding and practical utilization of community systems and resources that promote quality outcomes for both preschool and school age children, families, schools, and communities. This course may be offered in a distance education format.

ECE 3 EARLY CHILDHOOD PROGRAM ADMINISTRATION – 3 Units
Prerequisite: ECE 7 with a grade of C or higher
Note: This course meets the Title 22 requirements for Teacher/Director qualifications.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course identifies and assesses the principles and practices of managing early childhood programs. Course content will focus on overall administrative procedures for various programs providing care and learning for children ages zero to eight. The topics include: regulatory agencies, licensing and compliance with local and state requirements, funding and budgeting, staff selection and scheduling, and enrollment and operational policies and reports. This course may be offered in a distance education format.

ECE 6 EXPLORING FAMILY CHILDCARE – 1 Unit (formerly ECE 153)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)

This course provides an introduction to family childcare. Topics presented include an overview of regulations, family childcare management, importance of culturally diverse and age appropriate activities, and safe and healthful setting in a family childcare. This course may be offered in a distance education format.

ECE 7 EARLY CHILDHOOD OBSERVATION & ASSESSMENT – 3 Units
Prerequisite: ECE 1 or ECE 9 with a grade of C or higher
Note: Observation hours for this course will be obtained through the
This course focuses on developmental research and current practices in care and learning during infancy and toddlerhood. Emphasis will be on understanding developmental stages, planning optimal environments and clarifying the care giving role of teachers and child care workers for children during the first two years of life. This course may be offered in a distance education format.

**ECE 14 SCHOOL AGE AND ADOLESCENT DEVELOPMENT – 3 Units**

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

A course focusing on growth, development and behavior of school age children and adolescents. Current research and theoretical concepts will be discussed and analyzed for practical implications and applications to assist those living with and/or working with school age children and adolescents. This course may be offered in a distance education format.

**ECE 15 CHILD HEALTH, SAFETY AND NUTRITION – 3 Units**

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

Provides an opportunity for early childhood educators and caregivers to focus on health, safety and nutrition in children’s programs. Fundamentals of a safe and healthful environment, including knowledge of state and local laws and regulations will be introduced. Key factors that ensure physical health, mental health and safety for both children and staff, and effective strategies for working collaboratively with families will be identified. Community health, safety and nutrition resources and their application to the children’s curriculum will be highlighted. This course may be offered in a distance education format.

**ECE 16 FUNDAMENTALS OF EARLY CHILDHOOD MENTORING AND SUPERVISION – 2 Units**

Prerequisite: ECE 7 with a grade of C or higher

Advisory: ECE 3 with a grade of C or higher

Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)

Designed to satisfy the Child Development Permit Master Teacher level and above requirement. Course content focuses on the methods and principles of supervising the adult learner in the early childhood program. Emphasis is on the role of the classroom teacher who functions as a mentor to new teachers and other adult participants while simultaneously meeting objectives for children, parents, and staff. Expanded modeling, guidance, and evaluation approaches will be examined. This course may be offered in a distance education format.

**ECE 17 PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN – 3 Units**

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

An examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for all children. This course includes a review of the historical roots of early childhood programs and the evolution of the professional practices promoting advocacy, ethics, and professional identity. Emphasis will be placed upon increasing the student’s skills in critically analyzing educational settings for young children. Special attention will be given to room arrangement, selection and storage of materials. This course may be offered in a distance education format.

**ECE 20 INTRODUCTION TO CURRICULUM – 3 Units**

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course presents an overview of knowledge and skills related to providing developmentally appropriate curriculum and environments for young children from birth to age 8. Students will examine a teacher's role in supporting development and fostering the joy of learning for all young children using observation and assessment strategies. An overview of content areas will include but not be limited to: language, literacy, mathematics, science, and social studies.
and literacy, social and emotional learning, sensory learning, art and creativity, math and science. Students will acquire an understanding of the philosophies and strategies for developing and documenting integrated curricula for early childhood programs including ways to organize and implement daily, monthly, and long-range activity planning. This course may be offered in a distance education format.

ECE 22  E.C. CURRICULUM: INFANT/TODDLER CARE – 3 Units
Class Hours:  54 lecture total  (when offered in the Distance Education format, hours will total 162)

A course focusing on the planning, preparation, and presentation of developmentally appropriate curriculum activities, materials, and learning environments for use with infants and toddlers to support physical, social-emotional, cognitive and language development. Emphasis will be placed upon increasing the student’s skills in critically analyzing education settings and materials for infants and toddlers. Special attention will be given to both indoor and outdoor environments and curriculum. This course may be offered in a distance education format.

ECE 24  E.C. CURRICULUM: SCHOOL AGE CARE – 3 Units
Class Hours:  54 lecture total  (when offered in the Distance Education format, hours will total 162)

This course will examine the planning and presentation of curriculum experiences for school age children in an extended care setting. Opportunities to develop skills in enhancing the school age child’s day with developmental experiences and positive social interaction will be provided. Focus will be placed on individualized and group activities to encourage the development of self-esteem, motivation for learning, and recreational skills. Special attention will be given to both indoor and outdoor environments and curriculum. This course may be offered in a distance education format.

ECE 26  THE CHILD WITH SPECIAL NEEDS – 3 Units
Prerequisite:  ECE 2 or ECE 9 with a grade of C or higher
Class Hours:  54 lecture total  (when offered in the Distance Education format, hours will total 162)

This course will focus on early childhood education and children with special needs. Developmental, educational, and family issues related to children and youth with disabilities and giftedness will be presented. The course also provides an overview of special education as a professional discipline, including its history, laws, challenges, current trends, and issues. This course will explore different types of special needs identified in children including children who are: gifted, developmentally delayed, learning disabled, as well as children with: emotional and behavioral disorders, communication disorders, sensory disorders, neurological disorders, and health impairments. This course may be offered in a distance education format.

ECE 27  TEACHING CHILDREN WITH SPECIAL NEEDS & EARLY INTERVENTION STRATEGIES – 3 Units
Prerequisite:  ECE 26 with a grade of C or higher
Class Hours:  54 lecture total  (when offered in the Distance Education format, hours will total 162)

This course focuses on learning to work with children birth to eight years of age with disabilities and other special needs and their families in inclusive early childhood educational settings. It will include an exploration of the following: characteristics of young children with disabilities and other special needs; impact on the family; types of educational and other programs/services that are available; modification of the educational environment; approaches to assessment and curriculum; integration and future trends. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and work collaboratively to plan, implement, and evaluate inclusion and intervention strategies. This course may be offered in a distance education format.

ECE 28  TEACHING IN A DIVERSE SOCIETY – 3 Units
Class Hours:  54 lecture total  (when offered in the Distance Education format, hours will total 162)

Examination of the development of social identities in diverse societies including theoretical and practical implications of oppression and privilege as they apply to young children, families, programs, classrooms, and teaching. Various early education classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. Course includes self-examination and reflection on issues related to social identity, stereotypes and bias, social and educational access, media, and schooling. This course may be offered in a distance education format.

ECE 51  EARLY CHILDHOOD STAFFING AND MANAGEMENT – 3 Units
Class Hours:  54 lecture total  (when offered in the Distance Education format, hours will total 162)

This course may be offered in a distance education format.

ECE 52  GUIDANCE IN ADULT-CHILD RELATIONS - 3 Units
Class Hours:  54 lecture total

This course explores principles and strategies of positive guidance that are both effective and flexible for adults interacting with young and school age children. Cognitive, social, and emotional characteristics and needs of children will be examined. This course would be of interest to parents, educators, caregivers, and any adult involved with or interested in children. This course may be offered in a distance education format.

ECE 60  ADVANCED CURRICULUM - 3 Units
Prerequisite:  ECE 20 with a grade of C or higher
Class Hours:  54 lecture total

This course will explore multiple areas of development for young children. Students will analyze the factors that affect and facilitate physical growth and development of young children. Students will learn strategies for supporting affective development with specific guidance directed to young children's social, emotional, and creative needs. This course will enable students to enhance young children's cognitive skills in language development and critical thinking skills. An integrated curriculum will be created with focus on health and nutrition, music and rhythm, perceptual and motor development, art expression, self-understanding, socialization, communication, literacy, mathematics, and science inquiry. Students will acquire strategies for identifying curriculum goals and procedures that strengthen young children's skills.

ECE 94  EARLY CHILDHOOD EDUC. WORKSITE LEARNING – 1-8 Units
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.
Class Hours:  75 hours paid or 60 hours non-paid per unit

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

ECE 140  ESSENTIALS OF 40 DEVELOPMENTAL ASSETS – 1 Unit
Class Hours:  18 lecture total  (when offered in the Distance Education format, hours will total 54)

This course offers an expanded study of the key elements necessary for children/youth to develop positive and healthy behaviors and habits. The research behind 40 Developmental Assets will be explored and action-based methods of using this research will be reviewed. Current
strength-based approaches to building assets in children/youth will be analyzed. This course may be offered in a distance education format.

**ECE 147 MENTAL HEALTH AWARENESS IN ECE PROGRAMS – 1 Unit**

**Class Hours:** 18 lecture total (when offered in the Distance Education format, hours will total 54)

This course introduces the student to mental health issues in young children, their families, and their caregivers. It includes an overview of early childhood mental health from prenatal development to eight years of age, and the effects of environment and biology on mental health. Students will become aware of potential mental health concerns in early childhood, and how we can help children, parents, and caregivers in our programs. This course may be offered in a distance education format.

**ECE 155 THE YOUNG CHILD: INTRODUCTION TO THE MONTESSORI METHOD – 1 Unit (formerly ECE 152F)**

**Class Hours:** 18 lecture total

This course will introduce the student to the teaching and theory of Dr. Maria Montessori. This method of preparing a preschool environment, which promotes independence in the young child, will be presented through lectures and demonstrations.

**EARTH SCIENCE (ESCI)**

(Formerly Geology and Physical Science)

**ESCI 1 PHYSICAL GEOLOGY (formerly GEO 1, 1A) – 4 Units**

**Note:** Required field trips.

**Class Hours:** 54 lecture/54 lab total (When offered in a Distance Education format, hours will total 216)

An introduction to the physical processes that drive Earth as a dynamic planet. Both internal and external processes are considered as well as their inter-relationships. Discussion in the course will include Earth’s internal structure, plate tectonics, minerals and rocks and their origins, surface processes, geologic structures such as faulting and folding, metamorphism, sedimentation, soil formation, geologic time including radiometric methods, geologic hazards such as earthquakes, volcanism, mass wasting, flooding, and the vital nature of Earth materials to society. Laboratory activities will focus on the application of classroom concepts and will include mineral and rock identification, geologic structures, topographic and geologic map use, use of remote imagery, recognition of landforms, geologic time, seismology, and volcanism. Lecture and laboratory will consider geologically produced and influenced natural resources, their exploitation, and concepts centered about sustainable uses. This course may be offered in a distance education format.

**ESCI 2 HISTORICAL GEOLOGY – 4 Units**

(formally GEO 2, 1B)

**Advisory:** ESCI 5, or ESCI 6, or ESCI 7, or ESCI 8, or ESCI 9, or ESCI 10, or ESCI 12, or ESCI 15, or ESCI 17 with a grade of C or higher

**Note:** Required day and overnight field trips.

**Class Hours:** 54 lecture/54 lab total

The study of Earth history as revealed in the rock record and the placement of varied geologic events through time. Discussion in this course will include the genesis of minerals and three rock types, principles of stratigraphy, geologic structures, organic evolution, relative and absolute geologic time, paleogeography, and mountain building episodes of North America with emphasis on the west coast. Plate tectonics and crustal evolution will provide a framework for the preceding. Laboratory exercises will include the description and classification of minerals and rocks; recognition of ancient metamorphic, igneous and sedimentary environments; recognition, occurrence, and geologic use of fossil organisms; application of stratigraphic principles; recognition of geologic structures; and the development and use of different types of geologic maps and cross sections.

**ESCI 3 MINERALOGY AND CRYSTAL OPTICS – 5 Units**

(formally GEO 3)

**Prerequisite:** ESCI 1 with a grade of C or higher

**Corequisite:** CHEM 1A or previous completion of CHEM 1A with a grade of C or higher

**Class Hours:** 54 lecture/108 lab total

An exploration into the chemistry, classification, optics and crystalline structure of minerals. Topics covered in the course will include the chemistry, bonding, and crystalline structure of minerals, recognition of crystal types, physical properties of minerals, mineral classification as well as their origins, occurrence, and use, and an introduction to the theory of optical identification of minerals. Laboratory activities will include crystallography, physical properties testing, mineral classification, and optical techniques to identify mineral crystals with an introduction to uniaxial and biaxial minerals.

**ESCI 4 ROCK ORIGINS AND RELATIONSHIPS – 4 Units**

(formally GEO 4)

**Prerequisite:** ESCI 2 and ESCI 3 with a grade of C or higher

**Note:** Required day field trips.

**Class Hours:** 54 lecture/54 lab total

A survey of igneous, sedimentary, and metamorphic rocks presented in the context of recognizing processes responsible for rock origins. Rock classification based both on mega- and microscopic textures and mineralogy is fundamental to interpretation and provides the main discussion of topic for the course and laboratory. Specialized topics include magmatic differentiation and emplacement, sedimentary rock provenance and depositional environments, and metamorphic rocks as pressure and temperature indicators. Rock assemblages will be considered with the purpose of interpreting their origins at larger scales. Field trips to various localities will observe rock assemblages that demonstrate different origins.

**ESCI 6 ANCIENT LIFE – 4 Units**

(formally GEO 6)

**Note:** Required day field trips.

**Class Hours:** 54 lecture/54 lab total (When offered in a Distance Education format, hours will total 162 for the lecture portion of the class and an additional 54 hours of lab totaling 216 hours for this course)

A survey of past life is presented through geologic and biologic investigation. This course is interdisciplinary in nature and provides geologic background and evidence for the origination and evolution of life. Associated methodologies and concepts presented include geologic time and its measure, chemical and organic evolution, controls on evolution, cladistic analysis, ancient ecological reconstruction, mass extinction and adaptive radiation, fossilization, and ancient geographic distributions of flora and fauna. Anatomical innovations that define major classes of organisms are traced through ancestor-descendant relationships. Laboratory exercises include processes of fossilization, fossil recognition, cladistic analysis, genetics, stratigraphy, reconstruction of ancient biologic communities, ancient geographic reconstruction through fossil information, functional morphology, mass extinction and adaptive radiation in the fossil record. The lecture portion of this course may be offered in a distance education format.

**ESCI 7 INTRODUCTION TO THE GEOLOGY OF CALIFORNIA – 4 Units**

(formally GEO 7, 25)

**Note:** Required field trips (day trips and overnight trips)

**Class Hours:** 54 lecture/54 lab total (When offered in a Distance Education format, hours will total 162 for the lecture portion of the class and an additional 54 hours of lab totaling 216 hours for this course)

As the newest material added to North America, California geology records ancient and continued mountain building which has shaped the state into landforms and geologic features. Each geomorphic province in California records unique rock packages indicative of ancient and modern processes. Discussions in the course will include geologic hazards such as earthquakes, volcanism, and mass wasting, plate tectonics, economic resources, state and national parks, ground and surface water, soils, glaciation, coastal processes, desert land-forms, and the geologic history of the state. Laboratory exercises will include mineral and rock identification and classification, topographic and geologic maps; landforms; stratigraphy; aerial photo interpretation; and mineral, rock and data collection on field trips. The lecture portion of this course may be offered in a distance education format.

**ESCI 8 PLANETARY GEOLOGY: DEVELOPMENT, HISTORY AND PLANETARY PROCESSES – 3 Units**

(formally GEO 8, 22)

**Note:** Required field trips and/or evening observations when possible
A survey course designed for non-science majors which spans the Earth-related sciences, including geology, oceanography, meteorology, and astronomy. In general, the course focuses on physical processes and materials as related to each discipline. Topics include the geologic evolution of the Earth, economic resources derived from the Earth, Earth materials, evolution and character of the oceans, ocean-atmosphere interactions, atmospheric processes including weather and climate, the solar system and Earth as part of the universe. Using an Earth systems approach, lecture and laboratory will consider concepts centered about the sustainable use of natural resources. The laboratory portion of this course provides hands-on activities that support and demonstrate lecture concepts. The lecture portion of this course may be offered in a distance education format.

ESCI 14 METEOROLOGY – 4 Units (formerly PHSC 4)
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 216)
Dynamic aspects of the atmosphere responsible for climate and weather represent the main focus of this course. Topics include atmospheric composition, solar radiation, global heat transfer, atmospheric moisture, pressure and atmospheric circulation, air masses, weather patterns and forecasting, storms including hurricanes and tornadoes, air pollution and ozone, and global climate changes. Applicable fundamental science concepts such as state changes, heat transfer mechanisms, and the physical and chemical aspects of the media involved in weather are also introduced. Laboratory exercises will include analyses of incoming solar radiation, heat transfer in the atmosphere, humidity measurements, atmospheric motion, weather maps, storm characteristics, and climate controls and climate change. Lecture and laboratory will consider influences on the atmosphere that disrupt sustainable, stable climate conditions. This course may be offered in a distance education format.

ESCI 15 OCEANOGRAPHY – 4 Units (formerly PHSC 5)
Note: Required overnight field trip.
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 216 for the lecture portion of the class and an additional 54 hours of lab totaling 216 hours for this course.)
Global ocean dynamics are part of an intricate system that influences world climate and both terrestrial and oceanic life. Basic principles and concepts are presented including ocean origins, ocean basin formation, seawater composition and characteristics, oceanic circulation, and the marine habitat providing a holistic view to the study of the oceans. Coastal processes such as waves and tides, erosion and deposition, and landforms are also considered. Laboratory activities will survey marine geology including plate tectonic and ocean basin topography, chemical oceanography, physical oceanography such as circulation, waves and tides, and biological oceanography including marine organisms, marine ecosystems and nutrient flow. Lecture and laboratory will consider marine-produced and influenced natural resources, their exploitation, and concepts centered about sustainable uses. The lecture portion of this course may be offered in a distance education format.

ESCI 16 COASTAL MARINE SCIENCES – 2 Units (formerly PHSC 6)
Note: Required overnight field trip.
Class Hours: 36 lecture/54 lab total (when offered in a Distance Education format, hours will total 162)
An introduction to the coastal oceanography of northern California and coastal habitat evaluation. The course will include a three-day field trip along the northern California coast. In general, the course will focus on oceanographic concepts associated with estuaries, tidal flats, sandy shores, rocky shores, lagoons, and the shallow continental shelf. Lecture meetings will present basic concepts in oceanography including chemical, physical, geologic, and biologic realms, as related to the coastal zone and with an emphasis on the inter-related nature of these topics. Laboratory activities on campus will include charting and navigation, data synthesis and analysis while the coast field trip itself will represent the bulk of the laboratory experience. Field trip exercises will be conducted at various stops including oceanographic sampling and data collection. Lecture and laboratory will consider marine produced and influenced natural resources, their exploitation, and concepts centered about sustainable uses, especially as applied to field activities. This
course may be offered in a distance education format.

ESCI 17   EARTH SYSTEM SCIENCE – 3 Units  (formerly PHSC 7)
Note:  Required day field trips
Class Hours:  54 lecture total (when offered in a Distance Education format, hours will total 162)
Earth is a dynamic planet, changing in response to natural process within the atmosphere, geosphere, hydrosphere and biosphere.  Modern science is now viewing the Earth system in its entirety, the sum of its parts, in an effort to understand how processes in one sphere impact those in another.  This course stresses the inter-relationships of these systems and reviews natural cycles and positive and negative feedback pathways that operate over various time scales to affect global environmental change.  The impact of civilization on the Earth system is also analyzed as the course considers pollution, over population, global warming, deforestation, desertification, resource depletion, and biologic extinctions along with solutions developed within sustainable concepts and practices.  This course may be offered in a distance education format.

ESCI 18   GLOBAL CLIMATE CHANGE: PAST, PRESENT AND FUTURE – 3 Units
Class Hours:  54 lecture total (when offered in the Distance Education format, hours will total 162)
Atmospheric processes, on a global and local scale, are considered as they determine weather and climate through time.  Natural influences on the atmosphere include the global ocean, the sun, and volcanism.  On planet Earth, each directing atmospheric responses in a different manner.  Past climate conditions on Earth, and the science used to determine those conditions through rock, sediment and ice cores, will be explored.  Human influences on the atmosphere will be considered as well as a review of the observations that have led to scientific consensus on global climate change.  Current trends in climate change will be extrapolated into the future as directed by climate modeling and their consequences considered.  This course may be offered in a distance education format.

ESCI 23   INTRODUCTION TO GEOLOGY IN THE FIELD – 2 Units  (formerly GEOL 13, 13AB)
Grading:  Pass/No Pass Option
Prerequisite:  ESCI 1, or ESCI 5, or ESCI 6, or ESCI 7, or ESCI 10, or ESCI 12 with a grade of C or higher and ESCI 2 with a grade of C or higher
Note:  Includes required day field trips.
Class Hours:  27 lecture/27 lab total
An introduction to methods used to collect and interpret geologic data.  Lecture sessions will provide theory and background for field excursions as well as compilation periods to devise interpretations, assemble geologic summary reports, graphics, and maps.  Emphasis will be placed on field equipment and its use, outcrop examination and interpretation, rock and mineral identification, utilization of topographic maps, utilization and construction of geologic maps and cross sections, construction of stratigraphic columns, utilization of aerial and satellite imagery, recognition and interpretation of geologic structures, and recognition and interpretation of primary and secondary features in outcrops and different rock types.  Two or more field sites will provide the focus of the course.

ESCI 32   GEOLOGY OF THE NORTHERN SIERRAS – 1.5 Units  (formerly GEOL 32)
Grading:  Pass/No Pass Option
Note:  Required field trip.
Class Hours:  18 lecture/27 lab total (when offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geologic processes that have shaped the northern Sierras into a geologically diverse setting.  The course will culminate with a three-day field trip through the northern Sierras.  Lecture meetings will present basic concepts in geology as well as topics specific to the northern Sierras such as continental growth, multiple mountain building and landscape development, glaciation and related geomorphology, and “mother-lode” economic geology.  Field trip exercises will also be conducted at various stops.  The lecture portion of this course may be offered in a distance education format.

ESCI 33   GEOLOGY OF THE SACRAMENTO VALLEY – 1.5 Units  (formerly GEOL 33, 27B)
Grading:  Pass/No Pass Option
Note:  Required overnight field trip.
Class Hours:  18 lecture/27 lab total (when offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geology of the Sacramento Valley that will culminate with a two-and-a-half day overnight field trip through this geomorphic province.  Lecture meetings will present basic concepts in geology needed to understand the geologic history of the Sacramento Valley as well as outcrops visited during the field trip.  Topics to be discussed include geologic hazards, economic resources, volcanism, faulting, river processes, and the Pleistocene geology of the valley.  Field trip exercises will also be conducted at various stops.  The lecture portion of this course may be offered in a distance education format.

ESCI 34   GEOLOGY OF THE MODOC PLATEAU – 1.5 Units  (formerly GEOL 34, 61AB)
Grading:  Pass/No Pass Option
Note:  Required overnight field trip.
Class Hours:  18 lecture/27 lab total (when offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geology of the Modoc Plateau which will culminate with a two-and-a-half-day overnight field trip through this geomorphic province.  Lecture meetings will present basic concepts in geology needed to understand the geologic history of the Modoc Plateau as well as outcrops visited during the field trip.  Topics to be discussed include volcanic processes and features, geologic hazards, geothermal potential, economic resources, faulting, plateau development, basin and range development, and surface and subsurface water.  Field trip exercises will also be conducted at various stops.  The lecture portion of this course may be offered in a distance education format.

ESCI 35   GEOLOGY OF LASSEN VOLCANIC PARK – 1.5 Units  (formerly GEOL 35, 62AB)
Grading:  Pass/No Pass Option
Note:  Required overnight field trip.
Class Hours:  18 lecture/27 lab total (when offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geology of Lassen Volcanic Park that will culminate with a two-and-a-half day overnight field trip within and around the park.  Lecture meetings will present basic concepts in geology needed to understand the geologic history of the park as well as outcrops visited during the field trip.  Topics to be discussed include volcanic processes and features, volcanic and geothermal hazards, geothermal potential, glaciation and faulting.  Field trip exercises will also be conducted at various stops.  The lecture portion of this course may be offered in a distance education format.

ESCI 36   GEOLOGY OF MOUNT SHASTA AND VICINITY – 1.5 Units  (formerly GEOL 36, 64AB)
Grading:  Pass/No Pass Option
Note:  Required overnight field trip.
Class Hours:  18 lecture/27 lab total (when offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geology of Mount Shasta and surrounding areas which will culminate with a two-and-a-half day overnight field trip to and around the mountain.  Lecture meetings will present basic concepts in geology needed to understand the geologic history of Mount Shasta as well as outcrops visited during the field trip.  Topics to be discussed include volcanic processes and features, volcanic hazards, earthquakes, eruption predictability, geothermal activity, glaciation and mass wasting events.  Field trip exercises will also be conducted at various stops.  The lecture portion of this course may be offered in a
of this course may be offered in a distance education format.

ESCI 37  GEOLOGY OF THE NORTHERN CALIFORNIA COAST – 1.5 Units (formerly GEOL 37)
Grading: Pass/No Pass Option
Note: Required overnight field trip.
Class Hours: 18 lecture/27 lab total (when offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)

An introduction to the geologic processes which have shaped and continue to shape northern California's coastline. The course will culminate with a two-and-a-half day overnight field trip along the coast. Lecture meetings will present basic concepts in geology as well as topics specific to northern California's coastline such as geologic hazards including earthquakes, tsunamis, mass wasting events, and shore erosion, tidal processes, erosion and depositional processes, active mountain building, and geomorphology. Field trip exercises will also be conducted at various stops. The lecture portion of this course may be offered in a distance education format.

ESCI 38  GEOLOGY OF POINT REYES NATIONAL SEASHORE – 1.5 Units (formerly GEOL 38)
Grading: Pass/No Pass Option
Note: Required overnight field trip.
Class Hours: 18 lecture/27 lab total (when offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)

An introduction to the geologic processes which have shaped and continue to shape the Point Reyes National Seashore. The course will culminate with a three day overnight field trip to the national seashore. Lecture meetings will present basic concepts in geology as well as topics specific to Point Reyes such as the San Andreas Fault system, geologic hazards including earthquakes, tsunamis, and mass wasting events, tidal and estuarine processes, and the area geomorphology. Field trip exercises will also be conducted at various stops. The lecture portion of this course may be offered in a distance education format.

ESCI 42  GEOLOGY OF THE REDDING AREA – 1 Unit (formerly GEOL 42, 100)
Grading: Pass/No Pass Option
Note: Two required day field trips.
Class Hours: 9 lecture/27 lab total (when offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)

This introductory, short-term field class that will introduce the student to geologic features in the Redding area. Included in the lecture meetings is a basic introduction to geology and the concepts necessary to appreciate the geologic history recorded in the rocks near town. Mining aspects will also be introduced. Field trip activities will explore rock relationships and visit points of interest and significance around the Redding area over two 8-hour outings. The lecture portion of this course may be offered in a distance education format.

ESCI 43  GEOLOGY OF THE SHASTA LAKE AREA – 1 Unit (formerly GEOL 43, 102)
Grading: Pass/No Pass Option
Note: Two required day field trips.
Class Hours: 9 lecture/27 lab total (when offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)

This course is an introductory, short-term field class that will introduce the student to geologic features in the Shasta Lake area including those that are associated with Shasta Dam and the Sacramento River. Included in the lecture meetings is a basic introduction to geology and discussions related to damming the Sacramento River including engineering and ecosystem considerations. The geologic history of record in the area will be demonstrated though rock features such as fossil content. Field trip activities will explore rock relationships, river, lake and relationships and other points of significance during two 8-hour outings. The lecture portion of this course may be offered in a distance education format.

ESCI 44  GEOLOGY OF THE WHISKEYTOWN AREA – 1 Unit (formerly GEOL 44)
Grading: Pass/No Pass Option
Note: Two required day field trips.
Class Hours: 9 lecture/27 lab total (when offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)

The geologic history recorded in the Whiskeytown National Recreation area will be discussed with an introduction to relevant geologic concepts, accompanied by on-site explorations to demonstrate those concepts. Accretion, shear zone dynamics, magma chamber evolution and emplacement and the economic geology of the area are among the topics to be explored. The field trip will emphasize theory with field application as we visit points of interest and significance during two 8-hour outings. The lecture portion of this course may be offered in a distance education format.

ESCI 45  GEOLOGY OF CASTLE CRAGS AND VICINITY – 1 Unit (formerly GEOL 45)
Grading: Pass/No Pass Option
Note: Two required day field trips.
Class Hours: 9 lecture/27 lab total (when offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)

Castle Crags and the upper Sacramento River will provide the backdrop for an introduction to the geologic history and processes which have shaped this area. Lecture meetings will present relevant geologic concepts while on-site explorations will demonstrate those concepts. Topics will include glaciation, river dynamics, sea floor accretion, magma chamber evolution and emplacement and ancient environments. The field trip will emphasize theory with field application as we visit points of interest and significance during two 8-hour outings. The lecture portion of this course may be offered in a distance education format.

ESCI 46  GEOLOGY OF BURNEY FALLS AND VICINITY – 1 Unit (formerly GEOL 46)
Grading: Pass/No Pass Option
Note: Two required day field trips.
Class Hours: 9 lecture/27 lab total (when offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)

As a part of the southern Cascades and southern Modoc Plateau, the Burney Falls area presents an excellent backdrop for considering the geologic history and processes to be explored. The field trip will emphasize theory with field application as we visit points of interest and significance during two 8-hour outings. The lecture portion of this course may be offered in a distance education format.

ESCI 98  SPECIAL LAB TOPICS IN EARTH SCIENCE – .5-1 Unit (formerly GEOL 98)
Grading: Pass/No Pass Option
Note: Required field activities.
Class Hours: 27-54 lecture total

This course will provide students with an introduction to recent technological advances or multidisciplinary approaches to laboratory and field techniques in the geosciences. Topics will vary with each course offering and will be listed in the schedule of classes.
Chapter 6 – Course Descriptions

ECONOMICS (ECON)

ECON 1A PRINCIPLES OF ECONOMICS (MICRO) – 3 Units
Grading: Pass/No Pass Option
Prerequisite: MATH 101 with a grade of C or higher, or Math Placement Level 3 or higher.
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher (ECON 1A is not a prerequisite for ECON 1B)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course is a study of the basic institutions and principles of microeconomics and so it concentrates on the parts of an economic system; the markets, the producers, the consumers and the structures of basic industries along with systems for relative resource use and income determination. This course may be offered in a distance education format.

ECON 1B PRINCIPLES OF ECONOMICS (MACRO) – 3 Units
Grading: Pass/No Pass Option
Prerequisite: MATH 101 with a grade of C or higher, or Math Placement Level 3 or higher.
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher (ECON 1A is not a prerequisite for ECON 1B)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course studies the basic economic institutions and principles as they pertain to the entire economic system such as money and banking, determinants of national income, employment, output and the roles played by government in using monetary and fiscal policy to promote the mandates of the Employment Act of 1946. This course may be offered in a distance education format.

EDUCATION (EDUC)

EDUC 1 INTRODUCTION TO EDUCATION AND TEACHING – 3 Units
Class Hours: 54 lecture total

For prospective teachers, paraprofessionals, tutors, classroom volunteers/mentors, and others interested in education, this introductory course focuses on contemporary education practices and theories. Topics include: educational history, organization, teacher-child relationships, teaching methods, school resources, staff relations, curriculum patterns, authority, and discipline in the schools.

EDUC 94 EDUCATION WORKSITE LEARNING – 5-8 Units
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in WSL Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

EDUCATION – TEACHER EDUCATION (EDTE)

EDTE 51 CLASSROOM EXPERIENCE I – READING – 1 Unit
(formerly EDTE 55)
Corequisite: EDUC 94
Class Hours: 18 lecture total

EDTE 51 is an introduction to the teaching profession designed for students wishing to obtain a multiple subject teaching credential.

EDTE 52 CLASSROOM EXPERIENCE II – READING – 1 Unit
(formerly EDTE 60)
Corequisite: EDUC 94
Class Hours: 18 lecture total

EDTE 52 is designed to deepen awareness and knowledge regarding specific important aspects of the teaching profession, including in-depth examination of curriculum and assessment requirements specified in recent legislation, specific tests required for teacher certification, student teaching, specific education and content standards, lesson planning, and effective instructional strategies to promote learning. Classroom instruction is aligned with fieldwork so that prospective teachers acquire planned structured observations and experiences in K-8 classrooms that demonstrate exemplary practice as described in the California Standards for the Teaching Profession. Discussion sessions assist prospective teachers in making connections between college courses and instruction in elementary schools. Emphasis is upon application in the content area of reading and language.

EDTE 61 MATH I CLASSROOM EXPERIENCE – 1 Unit
(formerly EDTE 65)
Corequisite: EDUC 94
Class Hours: 18 lecture total

EDTE 61 is designed to deepen awareness and knowledge about the role, function, and responsibilities of the teacher in today’s public school setting. Prospective teachers learn theories related to child development, as well as various age-level cognitive, physical, emotional and social characteristics which impact learning. Prospective teachers gain knowledge and practice regarding tests required for teacher certification, including the CSET and RICA. Classroom instruction is aligned with fieldwork so that prospective teachers acquire planned structured observations and experiences in K-8 classrooms that demonstrate exemplary practice as described in the California Standards for the Teaching Profession. Discussion sessions assist prospective teachers in making connections between college courses and instruction in elementary schools. Emphasis is upon application in the content area of math.

EDTE 62 MATH II CLASSROOM EXPERIENCE – 1 Unit
(formerly EDTE 70)
Corequisite: EDUC 94
Class Hours: 18 lecture total

EDTE 62 is designed to deepen awareness and knowledge about each of the six California Standards for the Teaching Profession, including topics addressed within the standards and ways in which the standards drive and support effective instructional practices. The class promotes understanding about math content standards and developmentally appropriate strategies to teach math at various grade levels. Prospective teachers learn about effective instructional practices for diverse student populations, including English language learners, students with various types of disabilities, and students with special needs associated with economics and culture. Classroom instruction is aligned with fieldwork so that prospective teachers acquire planned structured observations and experiences in K-8 classrooms that demonstrate exemplary practice as described in the California Standards for the Teaching Profession. Discussion sessions assist prospective teachers in making connections between college courses and instruction in elementary schools. Emphasis is upon application in the content area of math.
EDTE 71 INTERNSHIP IN SCIENCE TEACHING – LIFE SCIENCE – .5 Unit
Class Hours: 27 lab total
EDTE 71 is focused on current teaching methods for life science. It is designed to give students the opportunity to work with elementary and middle school students in a science teaching/learning environment in the hands-on Science Education Laboratory facility on campus. The hands-on lessons provide early teaching experience in science for undergraduates exploring teaching as a career. All lessons are based on the California content standards in science. Students cover instructional strategies as well as content as part of the two-hour teaching and one-hour follow-up laboratory experience.

EDTE 72 INTERNSHIP IN SCIENCE TEACHING – PHYSICAL SCIENCE – .5 Unit
Class Hours: 27 lab total
EDTE 72 is focused on current teaching methods in physical science. It is designed to give students the opportunity to work with elementary and middle school students in a science teaching/learning environment in the hands-on Science Education Laboratory facility on campus. The hands-on lessons provide early teaching experience in science for undergraduates exploring teaching as a career. All lessons are based on the California content standards in science. Students cover instructional strategies as well as content as part of the two-hour teaching and one-hour follow-up laboratory experience.

EDTE 73 INTERNSHIP IN SCIENCE TEACHING – EARTH SCIENCE – .5 Unit
Class Hours: 27 lab total
EDTE 73 is focused on current teaching methods for earth science. It is designed to give students the opportunity to work with elementary and middle school students in a science teaching/learning environment in the hands-on Science Education Laboratory facility on campus. The hands-on lessons provide early teaching experience in science for undergraduates exploring teaching as a career. All lessons are based on the California content standards in science. Students cover instructional strategies as well as content as part of the two-hour teaching and one-hour follow-up laboratory experience.

ENGINEERING (ENGR)

ENGR 1A MEASUREMENTS AND PLANE SURVEYING – 3 Units
Prerequisite: MATH 10 with a grade of C or higher or Math Placement Level 5 or higher
Class Hours: 36 lecture/54 lab total
Surveying fundamentals including the use and care of surveying instruments such as engineers’ level, transits, and theodolite. Applications include survey procedures, vertical and horizontal measurements, traverses, layout, and survey calculations. Additional topics include legal descriptions, public land surveying, advanced equipment, and GPS.

ENGR 1B PLANE SURVEYING – 3 Units
Prerequisite: MATH 10 with a grade of C or higher or Math Placement Level 5 or higher, and ENGR 1A with a grade of C or higher
Class Hours: 36 lecture/54 lab total
Application of plane surveying principles to control surveys, field astronomy, route and construction surveys and property surveys. Introduction to advanced survey equipment and related systems.

ENGR 2 INTRODUCTION TO ENGINEERING – 2 Units
Grading: Pass/No Pass Option
Class Hours: 36 lecture total
The course explores the branches of engineering, the functions of an engineer, and the industries in which engineers work. It explains the engineering education pathways and explores effective strategies for students to reach their full academic potential. An introduction to the methods and tools of engineering problem solving and design including the interface of the engineer with society and engineering ethics are examined. Communication skills pertinent to the engineering profession are emphasized. Up to one unit of this course may be offered in a distance education format.

ENGR 17 CIRCUITS AND DEVICES – 4 Units
Prerequisite: MATH 4A and PHYS 4B with a grade of C or higher
Corequisite: MATH 4B or previous completion of MATH 4B with a grade of C or higher
Class Hours: 54 lecture/54 lab total
This course covers Nodal and Mesh circuit analysis techniques, first and second order steady state and transient analysis using the methods of differential calculus, phasors, resonance, RLCl circuits, the j operator, operational amplifiers, duality, basic digital circuits and Karnaugh mapping.

ENGR 22 ENGINEERING GRAPHICS – 2 Units
Prerequisite: English Placement Level 4 or higher; and MATH 220 with a grade of C or higher or Math Placement Level 1 or higher
Class Hours: 18 lecture/54 lab total
This course teaches the theory of orthographic projections and its use in delineating three-dimensional objects. The course begins with the basics. Topics include lettering, types of lines, geometric constructions, basic dimensioning practices, auxiliary views and a brief introduction to Computer-Aided Drafting (CAD).

ENGR 24 DESCRIPTIVE GEOMETRY – 2 Units
Prerequisite: ENGR 22 with a grade of C or higher
Class Hours: 18 lecture/54 lab total
This course is a continuation of study of the theory of engineering graphics and its use in solving three-dimensional problems through the application of principals of multi-view projections. Descriptive Geometry topics include the use of auxiliary views in finding true length, bearing and slope of lines, the true shape and edge view of surfaces, dihedral angles, shortest connectors, and the intersection between planes. Additionally, the method of revolutions is also explored in solving similar problems.

ENGR 27 MAP & COMPUTER-AIDED DRAFTING – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ENGR 29 with a grade of C or higher
Advisory: ENGR 1A with a grade of C or higher
Class Hours: 36 lecture/54 lab total
This course teaches the use of the computer and civil design software to produce maps. Course topics include input and processing of field data, digital terrain modeling, contours, subdivisions, roads, and deed descriptions.

ENGR 29 COMPUTER-AIDED DRAFTING (CAD) - 2 Units
Grading: Pass/No Pass Option
Corequisite: ENGR 22 or previous completion of ENGR 22 with a grade of C or higher
Note: Students taking the Internet format of this course must have access to and working knowledge of the Internet and Windows, plus access to the most recent version of the basic AutoCAD software.
Class Hours: 18 lecture/54 lab total (when offered in the Distance Education format, hours will total 108)
This course utilizes basic AutoCAD as a tool for efficient drafting and design development. This course helps prepare students for the growing numbers of jobs that require CAD, both for its greater efficiency and for its computer database drawings. The emphasis is on graphics with engineering applications. This course may be offered in a distance education format.

ENGR 30 INTERMEDIATE COMPUTER-AIDED DRAFTING – 2 Units
Grading: Pass/No Pass Option
Prerequisite: ENGR 29 with a grade of C or higher
Class Hours: 18 lecture/54 lab total
This is an intermediate course using AutoCAD for drafting and design. This course builds on basic 2D CAD, develops management systems, and covers 3D CAD through solid modeling.
ENGR 31  ARCHITECTURAL DETAILING – 2 Units  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGR 21 with a grade of C or higher  
**Class Hours:** 18 lecture/54 lab total  
This is a continued study of CAD as it pertains to architectural applications. The student completes the set of architectural drawings designed from the previous courses. The emphasis is in detailing sections, interior elevations, structural calculations, electrical loading, and building code compliance. The techniques for presentation renderings and commercial design considerations will also be discussed.

ENGR 32  ADVANCED CIVIL DESIGN APPLICATIONS FOR CAD – 3 Units  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGR 27 and ENGR 1A with a grade of C or higher  
**Class Hours:** 36 lecture/54 lab total  
This course will further the student's knowledge obtained in ENGR 27, so that the student will be better prepared as an engineering/drafting technician in a civil engineering office. Course topics include use of the computer and currently available software to process surveying data into complex topographic maps. These maps can and will be used for planimetric and profile maps as well as to process complex earthwork calculations.

ENGR 33  SOLID MODELING COMPUTER-AIDED DRAFTING – 2 Units (formerly ENGR 30C)  
**Prerequisite:** ENGR 29 with a grade of C or higher  
**Class Hours:** 18 lecture/54 lab total  
An advanced computer-aided drafting course using Solid Works, Mechanical Desktop and/or Inventor software to prepare students for drafting positions with high potential to advance to designer, etc. ENGR 33 builds on the skills and knowledge of ENGR 29. This course will focus on how to create 3D models, assemble and constrain assembly models. Students will use advanced drafting skills to solve design problems and to present solutions for production or engineering processes, and to visually communicate their solution.

ENGR 35  STATICS – 3 Units  
**Prerequisite:** PHYS 4A with a grade of C or higher  
**Corequisite:** MATH 4A or previous completion of MATH 4A with a grade of C or higher  
**Advisory:** ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher. Previous drafting experience is helpful.  
**Class Hours:** 54 lecture total  
A course in the study of the mechanics of equilibrium of force systems acting on engineering structures. Topics include equivalent force couple systems, equilibrium, truss analysis, multi-force member analysis, centroids, distributed forces, beam stress and strain diagrams, friction, cables, moments and products of inertia, and virtual work. This course is usually followed by a course in dynamics, offered at the university upper-division level.

ENGR 37  STATICS FOR ENGINEERING TECHNICIANS AND CONSTRUCTION MANAGEMENT – 3 Units  
**Prerequisite:** MATH 10 with a grade of C or higher, or Math Placement Level 5 or higher  
**Class Hours:** 54 lecture total  
This course analyzes the external forces induced in structures and machines by various types of loading. Basic vector analysis is used to determine equivalent force-couple systems and equilibrium of two-dimensional bodies. Analysis of simple frames and machines and trusses is discussed. Frictional forces within wedges and belts are considered within units. Centroids and Area Moments of Inertia are calculated for composite objects.

ENGR 38  STRENGTH OF MATERIALS FOR ENGINEERING TECHNICIANS AND CONSTRUCTION MANAGEMENT – 3 Units  
**Prerequisite:** ENGR 37 or ENGR 35 with a grade of C or higher  
**Class Hours:** 54 lecture total  
This course analyzes the internal forces induced in structures and machines by various types of loading. Simple stresses, strains, basic mechanical properties of materials, torsion of circular shafts, shear forces and bending moments in beams, stresses in beams and beam design will be covered. Topics in deflection of beams and statically indeterminate beams are covered.

ENGR 40  STRENGTH OF MATERIALS – 3 Units  
**Prerequisite:** ENGR 35 with a grade of C or higher  
**Class Hours:** 54 lecture/54 lab total  
This course is a study of stresses, strains and deformations associated with axial, torsional and flexural loading of bars, shafts and beams, as well as pressure loading of thin-walled pressure vessels. The course also covers stress and strain transformation, Mohr's Circle, ductile and brittle failure theories, and the buckling of columns. Statically indeterminate systems are also studied.

ENGR 45  PROPERTIES OF MATERIALS - 4 Units  
**Prerequisite:** PHYS 4A with a grade of C or higher  
**Class Hours:** 54 lecture/54 lab total  
This course presents the internal structures and resulting behaviors of materials used in engineering applications, including metals, ceramics, polymers, composites, and semiconductors. The emphasis is upon developing the ability both to select appropriate materials to meet engineering design criteria and to understand the effects of heat, stress, imperfections, and performance. Laboratories provide direct observations of the structures and behaviors discussed in the course, experience with the operation of testing equipment, and the preparation of experimental reports.

ENGR 46  ENGINEERING WORKSITE LEARNING - 1-8 Units  
**Limitation on Enrollment:** Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.  
**Class Hours:** 75 hours paid or 60 hours non-paid per unit  
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteering at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

ENGR 47  SPECIAL TOPICS IN ENGINEERING – .5-2 Units  
**Grading:** Pass/No Pass Option  
**Class Hours:** 9-36 lecture total  
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in engineering. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes.

ENGL 1A  COLLEGE COMPOSITION - 4 Units  
**Prerequisite:** ENGL 190 with a grade of C or higher or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
ENGL 11B SURVEY OF AMERICAN LITERATURE–1860 to Present – 3 Units
Prerequisite: ENGL 1A with a grade of C or higher or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course involves a study of representative authors in the literary history of the United States from the pre-colonial period to the Civil War. This course may be offered in a distance education format.

ENGL 13A SURVEY OF ENGLISH LITERATURE (Old English Period through Neoclassicism) – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ENGL 1A with a grade of C or higher or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
ENGL 13A is the first semester of the basic two-semester English Literature survey course commonly offered in the sophomore year at colleges and universities. It involves the intensive study of and reading and writing upon representative masterpieces of the literary history of England from the Anglo-Saxon period to the end of the 18th century. This course may be offered in a distance education format.

ENGL 13B SURVEY OF ENGLISH LITERATURE (from the Romantic Period to Present) – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ENGL 1A with a grade of C or higher, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
ENGL 13B is the second part of the basic two-semester English Literature survey course, commonly offered in the sophomore year at colleges and universities. It involves the intensive study of and reading and writing upon representative masterpieces of the literary history of England from the Romantic Period to the present. This course may be offered in a distance education format.

ENGL 14 SURVEY OF DRAMA AS LITERATURE – 3 Units
Grading: Pass/No Pass Option
Prerequisite: ENGL 1A with a grade of C or higher, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A course designed to provide the student with an awareness of the origin and development of Western drama through an examination of representative plays from classical Greece to the present. Aesthetic values as well as social, political, and psychological implications expressed through the drama will be examined in order to enhance the student's understanding and appreciation of dramatic literature; therefore, students will be required to watch as well as read plays which are representative of the various movements in western civilization. This course may be offered in a distance education format.

ENGL 15 LITERATURE BY AND ABOUT WOMEN - 3 Units
Grading: Pass/No Pass Option
Prerequisite: ENGL 1A with a grade of C or higher, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A survey of literature by and about women in different periods and countries. Genres studied include stories, diaries and letters, poetry and drama. Emphasis is on the human condition, especially among
woman, as expressed in literature. This course may be offered in a distance education format.

**ENGL 16 POETRY - 3 Units**  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGL 1A with a grade of C or higher, or English Placement Level 7  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

An intensive course analyzing the techniques and forms of poetry in English with stress on the genre. Interpretation and appreciation are the primary goals. Emphasis is on extensive reading for pleasure, various types of writing including analytical, responsive and experiential, as well as group experiences in listening. In addition, this course seeks to equip the college literature student to understand literary materials in a new way. The course includes a number of written exercises. This course may be offered in a distance education format.

**ENGL 17 INTRODUCTION TO SHAKESPEARE - 3 Units**  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGL 1A with a grade of C or higher, or English Placement Level 7  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course offers an introduction to the representative works by Shakespeare including the characteristics of the different genres such as comedy, history, and tragedy as well as a study of the sonnets. A particular focus on theatre history and the historical and sociological influences of the Elizabethan/Jacobean era will highlight the study of the dramatic and literary conventions. This course may be offered in a distance education format.

**ENGL 18 AFRICAN AMERICAN LITERATURE - 3 Units**  
**Grading:** Pass/No Pass Option  
**Advisory:** ENGL 1A with a grade of C or higher or English Placement Level 7  
**Class Hours:** 54 lecture total  

This course is primarily a genre study of African American Literature from the colonial period to the present – including oral tradition, poetry, slave narratives, essays, short stories, plays, novels, and music. Included is an examination of the historical, cultural and social forces influencing these works.

**ENGL 19 SURVEY OF BIBLE AS LITERATURE – 3 Units**  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGL 1A with a grade of C or higher, or English Placement Level 7  
**Class Hours:** 54 lecture total  

A course designed to provide the student with an understanding of the origin and development of the bible canon and its rendering into English. Major Bible books will be examined from the perspectives of content, form, and scholarly criticism. This course may be offered in a distance education format.

**ENGL 20 WORLD MYTHOLOGY – 3 Units**  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGL 1A with a grade of C or higher, or English Placement Level 7  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course introduces the major images and themes of myths from around the world. By analyzing various archetypal patterns found in the sacred stories, narratives, and legends of the great civilizations and tribal cultures, students understand both the uniqueness of each culture’s world view and the commonality of human experience. This course may be offered in a distance education format.

**ENGL 24 MULTICULTURAL PERSPECTIVES IN AMERICAN LITERATURE – 3 Units**  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGL 1A with a grade of C or higher, or English Placement Level 7  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course is an introduction to multiethnic literary currents in American literature and will focus on African-American, Asian-American, Hispanic-American, Pacific-Islander, and/ or Native-American literature (minimum of two) within “mainstream” American literature. Poetry, essays, short stories, novels, memoirs, and biography will be studied as works of individual artists and from a cultural perspective. An integral part of the course is an understanding of the political/cultural/historical context of the literature. This course stresses critical and analytical thinking, reading, and writing skills. Students from all backgrounds should benefit from the unique insights into American life afforded by these rich and varied traditions. This course may be offered in a distance education format.

**ENGL 25 LINGUISTICS – 3 Units**  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGL 1A with a grade of C or higher, or English Placement Level 7  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

The course is an introduction to the study of language. Course content surveys linguistic concepts of the nature and diversity of language: morphology, syntax, semantics, phonetics, and phonology; language acquisition; social variation, and historical change. This course may be offered in a distance education format.

**ENGL 31 CREATIVE WRITING – 3 Units**  
**Grading:** Pass/No Pass Option  
**Advisory:** ENGL 190 or ESL 138 with a grade of C or higher, or English Placement Level 6 or higher  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

The student learns the craft and principles of dramatic narrative and poetry through a variety of short assignments. A final project may be written in any field of interest: short story, article, movie/TV script, stage play, or book. Analysis and lecture are presented both for those desiring to write experimentally, and for those interested in the demanding world of publication. This course may be offered in a distance education format.

**ENGL 33 FICTION AND FILM – 3 Units**  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGL 1A with a grade of C or higher, or English Placement Level 7  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

An examination of fiction and film as literary art forms. Course emphasizes critical reading of literature and viewing of film, with comparative, expository, and argumentative writing about those works. Through in-depth analysis of examples from both literature and film, students will become familiar with the major literary conversations in fiction and film, and learn to appraise a work on the basis of literary merit. This course may be offered in a distance education format.

**ENGL 36 CHILDREN’S LITERATURE – 3 Units**  
**Grading:** Pass/No Pass Option  
**Prerequisite:** ENGL 1A with a grade of C or higher or English Placement Level 7  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course provides an overview of the origins and developments of children’s literature and acquaints the student with different genres of literature written for and read by children. In addition to exploring ways of promoting children’s development through literature, students will also learn how to approach children’s literature from a critical and theoretical perspective. This course may be offered in a distance education format.
ENGL 129 GRAMMAR REVIEW: GRAMMATICAL AND EFFECTIVE SENTENCES – 1 Unit
Grading: Pass/No Pass Option
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
Emphasizes structure, variety, effectiveness, and sentence style. Includes a diagnosis of the individual's writing needs, methods of proofreading, rules of punctuation, and techniques for revision. This course may be offered in a distance education format.

ENGL 190 READING AND WRITING II - 4 Units
Prerequisite: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
This course is designed to improve critical reading skills and to increase writing abilities so that students are able to read a text closely and produce organized, well-supported, and generally smoothly written essays. The course places emphasis on writing both as a process and as a presentable product. In addition, the course introduces students to academic research and the use of source materials in writing. This course may be offered in a distance education format.

ENGL 191 WRITING IN THE WORKPLACE: GRAMMAR IN CONTEXT AND BASIC ESSAY STRUCTURE – 2 Units
Prerequisite: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 36 lecture total
ENGL 191 is designed as the first in a module series specifically for those students who desire direct applications of writing skills to the workplace environment with a special emphasis on basic essay structure and the correct and effective use of grammar and mechanics required in vocational fields. Emphasis will be on both correctness and the writing process. If passed with a grade of "C" or higher, this course can be used in combination with ENGL 192, ENGL 193, and/or ENGL 194 (for a total of four units) to admit a student into ENGL 1A. The flexible scheduling of this course and the module approach allows students more freedom in choosing both their schedules and their curriculum.

ENGL 192 WRITING IN THE WORKPLACE: NARRATION – 1 Unit
Prerequisite: ENGL 191 with a grade of C or higher
Class Hours: 18 lecture total
ENGL 192 is designed specifically for those students who have completed ENGL 191 and who desire direct applications of writing skills to the workplace environment with a special emphasis on narrative writing skills utilized in vocational fields. Emphasis will be on both correctness and the writing process. If passed with a grade of "C" or higher, this course can be used in combination with ENGL 191 and either ENGL 193 or ENGL 194 (for a total of four units) to admit a student into ENGL 1A. The flexible scheduling of this course, along with its module approach, allows students more freedom in choosing both their schedules and their curriculum.

ENGL 193 WRITING IN THE WORKPLACE: PROCESS AND REPORT WRITING – 1 Unit
Prerequisite: ENGL 191 with a grade of C or higher
Class Hours: 18 lecture total
ENGL 193 is designed specifically for those students who have completed ENGL 191 and who desire direct applications of writing skills to the workplace environment with a special emphasis on process and report writing utilized in vocational fields. Emphasis will be on both correctness and the writing process. If passed with a grade of "C" or higher, this course can be used in combination with ENGL 191 and either ENGL 192 or ENGL 194 (for a total of four units) to admit a student into ENGL 1A. The flexible scheduling of this course, along with its module approach, allows students more freedom in choosing both their schedules and their curriculum.

ENGL 194 WRITING IN THE WORKPLACE: COMPARISON/CONTRAST AND BASIC ARGUMENTATION – 1 Unit
Prerequisite: ENGL 191 with a grade of C or higher
Class Hours: 18 lecture total
ENGL 194 is designed specifically for those students who have completed ENGL 191 and who desire direct applications of writing skills to the workplace environment with a special emphasis on comparison/contrast and basic argumentative writing skills utilized in vocational fields. Emphasis will be on both correctness and the writing process. If passed with a grade of "C" or higher, this course can be used in combination with ENGL 191 and either ENGL 192 or ENGL 193 (for a total of four units) to admit a student into ENGL 1A. The flexible scheduling of this course, along with its module approach, allows students more freedom in choosing both their schedules and their curriculum.

ENGL 250 ELEMENTS OF READING 250 – 2 Units
Grading: Pass/No Pass Option
Prerequisite: English Placement Level 2 or higher
Class Hours: 54 lecture, 54 lab total
This course is constructed to help students enhance personal reading and work-related language skills. Instruction will include word attack strategies, vocabulary development, word usage, study skills, sentence writing, paragraph writing, critical thinking opportunities, and interpretive comprehension. Materials at the sixth and seventh grade levels will be used. The student must be capable of working independently and in small groups.

ENGL 260 READING AND WRITING I – 4 Units
Grading: Pass/No Pass Option
Prerequisite: ENGL 260 with a grade of C or higher, or English Placement Level 3 or higher
Class Hours: 72 lecture total
This course builds towards college-level reading and writing skills. The reading component emphasizes such skills as previewing, locating main ideas and supporting evidence, and drawing sound inferences. The writing component consists primarily of narrative, reading responses, and summaries. The course aims to increase reading and writing fluency, with some attention to correctness and the ability to develop ideas in an organized fashion in various kinds of writing.

ENGL 350 READING AND WRITING FOUNDATIONS – 0 Units
Advisory: English Placement Level 1 or higher
Class Hours: 54-108 lab total
This course is designed to help students read and write proficiently in daily life, in the workplace, and in preparation for academic study. With the instructor's guidance, students will identify their personal goals for taking this course and develop an individual plan for meeting them. The course will provide one-on-one and small group instruction in basic reading and writing skills. This course may be repeated any number of times.

ENGL 382 READING AND WRITING WORKSHOP – 0 Units
Class Hours: 1-200 lab total
Students receive individualized tutoring to address problems they are having either in written expression or in reading.

ENGLISH AS A SECOND LANGUAGE (ESL)

Información General Sobre Nuestros Programas
El Colegio de Shasta sirve a su comunidad con programas educativos y culturales que amplían las experiencias de los estudiantes, desarrollan sus habilidades potenciales y los capacitan para ser productivos y para triunfar en la sociedad. A todos los estudiantes se les ofrece entrada a nuestros programas y a las oportunidades. El Colegio aspira a satisfacer las necesidades individuales, a mantener las normas académicas apropiadas, a proteger la libertad académica y personal, y a promover oportunidades sin discriminación.
Para obtener prioridad de matrícula en el siguiente semestre, complete el formulario expresando sus deseos de matricularse. Con mucha anticipación se publica un catálogo que incluye todas las clases ofrecidas en cada semestre escolar. Hay consejeros en cada periodo de matriculación para ayudarle al alumno a planear su programa escolar.
El Programa de "ESL" (Inglés como Segunda Lengua) se les ofrece a los estudiantes extranjeros y a los residentes que no hablan inglés. Hay varios niveles de cursos en ESL. Los administradores y los profesores del programa le podrán ayudar a seleccionar los cursos más beneficiales para usted. Los cursos se ofrecen en las días y noches. Si desea más información visite la Oficina #206 o el Aula #210 llame al número 242-7711.

**ESL 136**  
**ORAL COMMUNICATION FOR COLLEGE SUCCESS** – 4 Units  
Grading: Pass/No Pass Option  
Prerequisite: ESL 236 with a grade of C or higher or ESL Placement Level 7 or higher  
Class Hours: 72 lecture total  
This is a course designed to assist non-native speakers of English to build both fluency and accuracy in their listening and speaking skills. Activities integrating listening, speaking and pronunciation provide relevant practice necessary for business and academics.

**ESL 137**  
**COMPOSITION I** – 4 Units  
Grading: Pass/No Pass Option  
Prerequisite: ESL 236 with a grade of C or higher or ESL Placement Level 7 or higher  
Class Hours: 72 lecture total  
This is an academic course for non-native speakers of English designed to develop writing fluency. Emphasis is on writing short compositions, developing process-writing skills and learning common methods of organization for college-level writing assignments. This course offers a limited review of English grammatical patterns. For a more thorough review, students are advised to enroll in ESL 137L ESL Grammar Lab.

**ESL 137L**  
**ESL GRAMMAR LAB** - 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: ESL 236 with a grade of C or higher or ESL 137 with a minimum grade of C or higher  
Class Hours: 54 lab total  
This course is designed to develop and refine the grammar skills of intermediate to high intermediate English as a Second Language college students. It integrates the study of grammar in listening, speaking, reading and writing activities, which are contextualized and communicative.

**ESL 138**  
**COMPOSITION II** – 4 Units  
Grading: Pass/No Pass Option  
Prerequisite: ESL 137 with a grade of C or higher or ESL Placement Level 8 or higher  
Class Hours: 72 lecture  
This is the second of two academic ESL writing courses designed to develop college level writing skills. Emphasis is on writing longer compositions including expository, analytic and argumentative essays. The course will also cover sentence structure as well as some grammatical patterns as they relate to refining writing skills. For more thorough instruction in grammar, students are advised to take ESL 138L, ESL Grammar Lab II.

**ESL 138L**  
**ESL GRAMMAR LAB II** – 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: ESL 137 with a grade of C or higher or ESL 138 with a grade of C or higher  
Class Hours: 54 lab  
This is a high-intermediate to advanced course in grammar for non-native speakers of English. The emphasis is on developing grammar skills to enhance and refine college-level writing and editing. The course will include a quick review of the basics, but the focus will be on advanced grammatical structures as they relate to improving student writing.

**ESL 234**  
**INTERMEDIATE HIGH** – 5 Units (formerly ENGL 234)  
Grading: Pass/No Pass Option  
Advisory: Successful completion of ESL 333, or ESL Placement Level 5 or higher  
This course reviews and expands the intermediate language skills learned in the previous level. Students will develop the ability to communicate in oral and written English beyond the familiar. They will read authentic materials on everyday topics, identify the main ideas and draw conclusions, and write routine correspondence and brief compositions with increasing complexity.

**ESL 236**  
**ADVANCED** – 5 Units (formerly ENGL 236)  
Grading: Pass/No Pass Option  
Prerequisite: Successful completion of ESL 334, ESL 234 with a grade of C or higher, or ESL Placement Level 6 or higher  
Class Hours: 36 lecture/162 lab total  
At this level, students develop the ability to understand and engage in extended conversations and discussions and communicate with increasing fluency and grammatical accuracy. This course stresses the language skills necessary for further academic study. Students read authentic materials beyond the familiar, develop academic vocabulary, and write paragraphs and short compositions.
FSS 25  NUTRITION – 3 Units (formerly HOEC 25)
Class Hours:  54 lecture total (when offered in the Distance Education format, hours will total 162)
A study of the science of food, the nutrients and other substances therein, their actions, interactions and balance in relation to health and disease. The class emphasizes the positive contributions of nutrition to life and health. This course may be offered in a distance education format.

FSS 26  NUTRITION THROUGH THE LIFE SPAN – 3 Units
(formerly HOEC 26)
Class Hours:  54 lecture total
A course emphasizing the basic principles of nutrition as they apply to different age groups throughout the life cycle. The special concerns and nutritional needs of pregnancy and lactation, infancy and the preschool years, childhood and adolescence, adulthood and aging will be addressed. The course will also emphasize meal planning for the various stages of life utilizing current dietary recommendations and the most current revisions of nutrition labels.

FSS 27  NUTRITION AND DISEASE – 2 Units
Prerequisite:  FSS 25 with a grade of C or higher
Note:  Upon successful completion of the course (a grade of B or better), licensed nurses will receive 30 CE hours under BRN Provider #396.
Class Hours:  36 lecture total (when offered in the Distance Education format, hours will total 108)
A comprehensive therapeutic study of the relationship between a patient, their diet and optimum health. Physiological conditions that necessitate dietary modifications in the clinical setting will be stressed. This course may be offered in a distance education format.

FSS 46  PERSONAL FINANCE – 3 Units (formerly HOEC 46)
Class Hours:  54 lecture total
Designed to provide students with the information and decision-making tools needed for planning and implementing a successful lifelong financial plan. Topics will include budgeting, debt management, savings and other investment vehicles, taxes, insurance, and retirement planning.

FSS 60  LIFE MANAGEMENT – 3 Units (formerly HOEC 60)
Class Hours:  54 lecture total
This course provides students with skills for understanding and using both internal and external resources to function effectively in our present and future society. The effects of cultural forces and future trends will be covered in reference to individual and family values, standards, and goals. Students will be required to analyze and integrate established principles with self-understanding in both decision-making and creating lifetime goals for themselves. Strategies in time management, energy management, stress management and conflict management will also be covered.

FSS 94  FAMILY STUDIES AND SERVICES WORKSITE LEARNING – 1-8 Units
Limitation on Enrollment:  Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.
Class Hours:  75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.
FIRE TECHNOLOGY (FIRS)

FIRS 70 FIRE PROTECTION ORGANIZATION – 3 Units
Class Hours: 54 lecture total
This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives. This course may be offered in a distance education format.

FIRS 71 FIRE BEHAVIOR AND COMBUSTION – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course of study presents theory and fundamentals of how and why fires start, spread, and are controlled; an in-depth study of fire chemistry and physics; fire characteristics of materials; extinguishing agents; and fire control techniques. This course may be offered in a distance education format.

FIRS 72 FIRE PREVENTION TECHNOLOGY – 3 Units
Class Hours: 54 lecture total
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation and fire safety education. This course may be offered in a distance education format.

FIRS 73 WILDLAND FIREFIGHTER I ACADEMY – 4 Units
Grading: Pass/No Pass Only
Class Hours: 36 lecture/108 lab total
Review of fire behavior, equipment, and apparatus; cover basic wildland firefighting tactics and strategy, methods of attack, and planning fire problems. Course meets or exceeds the minimum requirements for entry-level firefighter positions in the California Department of Forestry (CDF) and the United States Forest Service (USFS). Note: To be considered for seasonal Firefighter positions by CDF, you must also hold additional certificates. Students should contact CALFIRE for additional information.

FIRS 74 FIRE PROTECTION EQUIPMENT AND SYSTEMS – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers. This course may be offered in a distance education format.

FIRS 79 FUNDAMENTALS OF PERSONAL FIRE SAFETY – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will introduce the student to fundamental issues relating to firefighting safety and survival. Students will evaluate case studies in which firefighters have been killed or injured. In addition, each student will be required to give an oral presentation based on an analysis of a “near miss” fatal fire/rescue scenario. This course may be offered in a distance education format.

FIRS 85 FIRE COMMAND IA – 2 Units (formerly FIRS 85A)
Grading: Pass/No Pass Option
Class Hours: 40 lecture total
This course provides an in-depth analysis of the principles of fire command and fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground. Note: While anyone may enroll in this course for general knowledge, skill development or degree requirement satisfaction, students pursuing California State Fire Marshal’s Office Certification or department specific promotional requirements should always check both of those organizations for current sequencing standards, prerequisites and “time limitations” related to certification or promotion. As of fall 2014 the CSFMO is requiring all Fire Officer Certification track candidates to have completed a CSFMO approved I-200 course and a CSFMO Prevention 1 course OR Fire Prevention 1A AND Fire Prevention 1B course, prior to enrollment in this class. These conditions and requirements have been changing rapidly as the CSFMO completes a major reorganization of the state’s fire training system. CSFMO certificates may only be issued to students who have completed all course requirements, including occupational experience or course prerequisites.

FIRS 86 BUILDING CONSTRUCTION FOR FIRE PROTECTION – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is the study of the components of building construction that relate to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preparing fire operations, and operating at fires. The development and evolution of building and fire codes will be studied in relationship to past fires in residential, commercial, and industrial occupations. This course may be offered in a distance education format.

FIRS 87 FIRE COMMAND IB – 2 Units (formerly FIRS 85B)
Grading: Pass/No Pass Option
Class Hours: 40 lecture total
This course covers company and multi-company fire command issues including wildland fires, hazardous materials incidents, and major medical incidents.

FIRS 94 FIREFIGHTER TRAINEE WORKSITE LEARNING – 1-8 Units
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteering at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on-the-job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

FIRS 100 BASIC FIRE COMPANY OPERATIONS – 2 Units
Grading: Pass/No Pass Option
Class Hours: 18 lecture/54 lab total
To provide the student with firsthand knowledge of actual fire conditions. Student will learn terminology used in the field, and how to work in the chain of command under emergency conditions, company procedures, shift routine, and engine company evolutions. Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 101 FIRE TECHNOLOGY CAREER PLACEMENT – 1 Unit
Grading: Pass/No Pass Option
Class Hours: 54 lab total
Designed to assist the student in the final semester of vocational program to learn interview techniques, to develop an employment portfolio, and to interview with several potential employers with the express purpose of assisting the student to obtain the best employment upon graduation.
FIRS 102  APPRENTICESHIP ACADEMY – 1.5 Units  
Grading:  Pass/No Pass Option  
Class Hours:  18 lecture/27 lab total  
This course will cover hazardous building materials/construction methods, rescue strategies, ventilation techniques, pre-plan methods, cautions regarding lab fires and instructional techniques for new personnel.  Note:  This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.  

FIRS 104  FIREFIGHTER I ACADEMY – 21 Units  
Class Hours:  235 lecture/450 lab total  
Prerequisite:  FAID 175 or FAID 132 with a grade of B or higher and FAID 133 with a grade of B of higher  
Notes:  
1).  The California State Fire Marshal’s Office requires that all Firefighter I summative tests be completed with a minimum score of 80% (a grade of B or higher).  Any student who does not meet this standard will have failed FIRS 104 and will not receive credit for the course, nor will the student receive individual unit or course completion certificates.  
2).  Any student enrolling in FIRS 104 must have completed the prerequisites of FAID 132 and FAID 133 at Shasta College (or their equivalents at another institution), or FAID 175 (or the equivalent at another institution).  Students who attempt to satisfy these prerequisites with courses from another institution must provide transcripts that verify a minimum grade of B (80%) has been met.  
This course provides the skills and knowledge needed for the entry level professional fire fighter to perform his/her duties safely, effectively, and competently.  The curriculum is based on the 2013 edition of NFPA 1001 Standard for Fire Fighter Professional Qualifications, the 2012 edition of NFPA 1051 Standard for Wildland Fire Fighter Professional Qualifications, and the 2008 edition of NFPA 472 Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents.  The seven overarching themes of the California State Fire Fighter I curriculum are:  general knowledge germane to the profession, fire department communications, fireground operations, rescue operations, preparedness and maintenance, wildland suppression activities, and hazardous materials/WMD.  This academy is an Accredited Regional Training Program approved by the California State Board of Fire Services.  Final certification as a Firefighter 1 is verified by the State Fire Marshal’s Office after the student completes the Academy, works as a volunteer Firefighter for one year or a full-time paid Firefighter for six months.  Students successfully completing this course will receive numerous stand alone certificates in structure and wildland fire suppression; Auto Extrication, Confined Space Awareness, Hazardous Materials Operations; and others.  Note:  Based on scheduling and instructor availability issues, this course may meet four or five days a week with occasional night classes, and additional weekend days may be required.  Preset/scheduled dates and times may be shifted as needed to accommodate facility usage, equipment demands, weather, skills development needs and instructor availability.  When dates and times are shifted, the total amount of required class time will not differ from those hours as listed on the first class handout.  

FIRS 105  DRIVER/OPERATOR 1A: EMERGENCY VEHICLE OPERATIONS – 1.5 Units  
Note:  Student must provide a fire engine for the driving portions of the course.  Student must possess a valid Class B CA Driver’s License.  
Class Hours:  18 lecture/27 lab total  
Designed to provide the student with information on driver techniques for emergency vehicles and techniques of basic inspection and maintenance for emergency vehicles, including actual driving exercises under simulated emergency conditions.  

FIRS 106  DRIVER/OPERATOR 1B: PUMP OPERATIONS – 1.5 Units  
Note:  Student must provide a fire engine for the driving portion of the course.  Student must possess a valid Class B CA Driver’s License.  
Class Hours:  18 lecture/27 lab total  
Course provides the student with the information, theory, methods and techniques for operating fire service pumps, including:  types of pumps, engine and pump gauges maintenance, unsafe pumping conditions, pressure relief devices, cooling systems, water supplies, drafting field hydraulics, and pumping operations.  

FIRS 108  FIREFIGHTER II – 4 Units  
Notes:  
1).  Students will have to provide their own safety equipment, which meets NFPA standards.  Equipment will include:  helmet, gloves, structural firefighting coat and pants, boots, eye protection, etc.  
2).  To receive a California State Fire Marshal’s Certification, students must have completed FIRS 104 prior to enrollment in FIRS 108.  
Class Hours:  50 lecture/70 lab total  
This course provides the skills and knowledge needed for the entry level professional fire fighter to perform his/her duties safely, effectively, and competently.  The curriculum is based on the 2013 edition of the NFPA 1001 Standard for Fire Fighter Professional Qualifications.  The five overarching themes of the California State Fire Fighter II curriculum are:  general knowledge germane to the profession, fire department communications, fireground operations, rescue operations, and prevention, preparedness, and maintenance.  Note:  This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.  

FIRS 113  FIRE CREW SUPERVISOR – 1 Unit  
Grading:  Pass/No Pass Option  
Class Hours:  18 lecture total  
The course is designed to complement existing fire crew captain training by presenting techniques for supervision of inmates, wards, and residents; conducting investigations; effective report writing; and understanding the legal rights of inmates, wards, and residents.  The practical application of these supervision skills will be emphasized using simulated training experiences.  Note:  This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.  

FIRS 116  ENGINE ACADEMY – 3 Units  
Grading:  Pass/No Pass Option  
Note:  Students must have completed the following course prior to enrollment in FIRS 116 in order to receive a USDA certification;  Crew Boss S-230 114, U.S. Forest Operator’s Permit for Engine Operator F-5  
Class Hours:  36 lecture/54 lab total  
A course designed to provide classroom training, field familiarization, and drills of all water-use and related equipment used in wildland fire suppression.  The student will obtain information, practical experience and a working knowledge of all water-use and related equipment used in wildland fire suppression, fire safety suppression tactics, engine company operations standards.  A USDA certificate of training will be issued upon successful completion of this course.  

FIRS 118  INTRODUCTION TO WILDLAND FIREFIGHTING – 1.5 Units  
Class Hours:  18 lecture/27 lab total  
This course meets requirements in the natural resources and fire science programs.  A review of fire chemistry, equipment, and manpower, basic firefighting strategy, methods of attack, pre-planning fire problems, and fire line safety are included in the course.  A.U.S. Forest Service USDA Certificate of Training (Basic Firefighter's Training) may be issued after satisfactory completion of this course.  Approximately 50 percent of labs will be in the field.  

FIRS 120  INCIDENT COMMAND SYSTEM ICS-200 – 1 Unit  
Grading:  Pass/No Pass Option  
Note:  This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.  
Class Hours:  18 lecture total  
Designed to introduce firefighters to the Incident Command System.
Chapter 6 – Course Descriptions

Emphasis will be on system design principles, components of the system, positional responsibilities, and the common responsibilities of personnel assigned to the organization. (This course is a prerequisite to further positional training under the Incident Command System.)

**FIRS 131 HAZARDOUS MATERIALS TECHNICIAN IA – 2.5 Units**
- **Grading:** Pass/No Pass Option
- **Class Hours:** 45 lecture total
An intense introduction to the nature and behavior of inorganic and organic chemicals. This course examines the physical and chemical properties of matter, its atomic structure, salts and non-salts, hydrocarbons and hydrocarbon derivatives, the forms of energy, flammable and combustible liquids, cryogenics, and the combustion process. Various laws of chemistry are discussed as they apply to organic compounds, flammable liquids and gases and other types of hazardous materials. Module 1 of 4 of the Haz-Mat Technician certification series. Note: To receive a California State Fire Marshal’s Office (CSFMO) Certification or a Calif. Specialized Training Institute (CSTI) Certification, the student is strongly encouraged to take these courses in the following sequence: Hazmat Operations followed by FIRS 131, 132, 133, and 134 in that order. Students who want to receive CSFMO or CSTI Certification will be required to take a supplemental certification test and pay a certification fee to the CSFMO or CSTI.

**FIRS 132 HAZARDOUS MATERIALS TECHNICIAN IB – 2.5 Units**
- **Grading:** Pass/No Pass Option
- **Class Hours:** 45 lecture total
An application of the information covered in FIRS 131 Hazardous Materials Technician IA, including the chemistry and hazards of various materials, chemical incompatibilities, and the products of combustion. Provides the technical foundation for specific operational strategies, field monitoring and detection devices with an emphasis placed on the safety associated with working around chemicals. Module 2 of 4 Haz-Mat Technician certification series. CSTI certification fees and materials fees will be charged. Note: To receive a California State Fire Marshal’s Office (CSFMO) Certification or a California Specialized Training Institute (CSTI) Certification the student is strongly encouraged to take these courses in the following sequence: Hazmat Operations followed by FIRS 131, 132, 133, and 134 in that order. Students who want to receive CSFMO or CSTI Certification will be required to take a supplemental certification test and pay a certification fee to the CSFMO or CSTI.

**FIRS 133 HAZARDOUS MATERIALS TECHNICIAN IC – 2.5 Units**
- **Grading:** Pass/No Pass Option
- **Class Hours:** 45 lecture total
A study of the legal, organizational, technical, and practical aspects of response to hazardous materials emergencies including the laws and regulations related to hazardous materials, the use of the Incident Command System, and protective actions, clothing, and equipment. Examines the Hazardous Materials Group I depth and the positions are exercised in a practical evaluation scenario. Module 3 of 4 of Haz-Mat Technician certification series. CSTI certification fees and materials fees will be charged. Course meets CSFMO certification requirements and is graded Credit/No Credit. Note: To receive a California State Fire Marshal’s Office (CSFMO) Certification or a California Specialized Training Institute (CSTI) Certification the student is strongly encouraged to take these courses in the following sequence: Hazmat Operations followed by FIRS 131, 132, 133, and 134 in that order. Students who want to receive CSFMO or CSTI Certification will be required to take a supplemental certification test and pay a certification fee to the CSFMO or CSTI.

**FIRS 134 HAZARDOUS MATERIALS TECHNICIAN ID – 1.5 Units**
- **Grading:** Pass/No Pass Option
- **Class Hours:** 18 lecture/27 lab total
Hands-on training in tactical field operations with various tools and specialized equipment involving the collection of evidence, containment methods, and techniques. Methods for identifying hazardous materials transported by rail car and highway motor vehicles are examined as well as clandestine drug labs, pipelines, and fixed facilities. Module 4 of 4 of Haz-Mat Technician certification series. Note: To receive a California State Fire Marshal’s Office (CSFMO) Certification or a California Specialized Training Institute (CSTI) Certification the student is strongly encouraged to take these courses in the following sequence: Hazmat Operations followed by FIRS 131, 132, 133, and 134 in that order. Students who want to receive CSFMO or CSTI Certification will be required to take a supplemental certification test and pay a certification fee to the CSFMO or CSTI.
identify hazards, and prepare them for operational level training. This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 148 RESCUE SYSTEMS I – 1.5 Units
Note: Students are required to provide personal safety equipment at a significant cost to the student. This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.
Class Hours: 18 lecture/27 lab total
A course designed to train firefighters, in paid or volunteer fire departments and emergency medical personnel, in vertical rescue techniques. Students will learn about equipment, identification, and care, applying techniques, belaying and raising and lowering the rescue basket, and safety. This course is designed to train students for vertical or high angle or rope rescue situations. Students may be required to train at heights of up to 200’ above ground.

FIRS 149 AUTO EXTRICATION – .5 Unit
Grading: Pass/No Pass Only
Class Hours: 9 lecture/9 lab total
To introduce principles of Auto extrication; use of basic hand tools, rescue tools, pulling and spreading operations, patient handling, and vehicle stabilization. Actual practice and application of the methods are taught in class. Students who are legally mandated to repeat this curriculum should contact the Division for additional information.

FIRS 151 FIRE CONTROL 1: BASIC FIRE CHEM – 1 Unit
Grading: Pass/No Pass Option
Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.
Class Hours: 18 lecture total
This course is a basic overview of the fire chemistry and fire behavior designed for the beginning or volunteer firefighter. Includes classes of fire, fundamentals of heat transfer, fire characteristics of materials, products of combustion, hazardous and explosive materials, extinguishing agents, size up, and exposure protection. This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 152 FIRE CONTROL 2: BASIC OPERATIONS- STRUCTURAL – 1 Unit
Grading: Pass/No Pass Option
Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.
Class Hours: 18 lecture total
This course is designed to provide the student with information, methods and techniques for operating basic fire fighting tools and carrying out basic fire fighting evolutions. Areas covered include hose, nozzles, and fittings; ground ladders; self contained breathing apparatus; pump operations in theory; pump operations in the field; and the use of fire extinguishers. This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 156 FIRE CONTROL 6: WILDLAND FIREFIGHTING ESSENTIALS – 1 Unit
Grading: Pass/No Pass Option
Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.
Class Hours: 18 lecture total
This course provides information, methods and techniques for wildland firefighting strategy and structure triage, terminology, survival skills, and operating safely in a wildland firefighting incident.

FIRS 158 PUMP OPERATIONS – 0.5 Unit
Grading: Pass/No Pass Option
Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.
Class Hours: 9 lecture/9 lab
This course provides the student with the information and skills training for operating fire service pumps. Topics include types of pumps, engine and pump gauges, maintenance, unsafe pumping conditions, pressure relief devices, cooling systems, water supply, drafting, and field hydraulics. Each student will have the opportunity to increase his or her pumping skills during simulated pumping conditions.

FIRS 177 FIRE PREVENTION 1 – 2 Units
Grading: Pass/No Pass Option
Class Hours: 36 lecture total
This course will provide the student with a basic knowledge of the Company Officer certification track and Capstone Task Book process. The student will also be equipped with knowledge and skills related to the Company Officer’s role in fire prevention, the relationship between life safety and building construction, the elements of a quality company inspection program, and how to address complex hazards encountered during an inspection.

FIRS 180 FIRE MANAGEMENT 1 – 2.5 Units
Class Hours: 45 lecture total
To provide fire service personnel with the basic understanding of supervision and management concepts, practices, and theories. Designed for both in-service and pre-service personnel to develop skills that can be used presently and in future career goals. Note: While anyone may enroll in this course for general knowledge, skill development or degree requirement satisfaction, students pursuing California State Fire Marshal’s Office Certification or department specific promotional requirements should always check both of those organizations for current sequencing standards, prerequisites and “time limitations” related to certification or promotion. These conditions and requirements have been changing rapidly as the CSFMO completes a major reorganization of the State’s fire training system, CSFMO certificates may only be issued to students who have completed all course requirements, including occupational experience or course prerequisites.

FIRS 183 FIRE PREVENTION 1A, INTRODUCTION TO THE CALIFORNIA FIRE CODE – 2 Units
Class Hours: 40 lecture total
This course is designed to instruct students in the areas of fire prevention functions. Topics include: responsibilities, authority for code enforcement, occupancy classifications, building preparation, records management, exiting requirements, plan review, and fire safety education. This course is one of a series for fire officer course work to meet State of California Fire Officer and Fire Prevention Officer certification.

FIRS 184 FIRE PREVENTION 1B, INSPECTION OF FIRE PREVENTION SYSTEMS & SPECIAL HAZARDS – 2 Units
Class Hours: 40 lecture total
Designed to instruct students in the operation and inspection of extinguishers, fixed system, sprinklers, standpipes and alarm systems. Provide technical information on hazardous materials, flammable and combustible liquids and compressed liquefied gasses. Course is one of a series for fire officer course work to meet State of California Fire Officer Certification.

FIRS 189 FIRE INVESTIGATION 1A – 2 Units
Grading: Pass/No Pass Option
Class Hours: 40 lecture total (when offered in the Distance Education format, hours will total 112)
Note: While anyone may enroll in this course for general knowledge, skill development or degree requirement satisfaction, students pursuing California State Fire Marshal’s Office Certification or...
department specific promotional requirements should always check both of those organizations for current sequencing standards, prerequisites and "time limitations" related to certification or promotion. These conditions and requirements have been changing rapidly as the CSFMO completes a major reorganization of the state’s fire training system. CSFMO certificates may only be issued to students who have completed all course requirements, including occupational experience or course prerequisites.

This course of study presents theory and fundamentals of fire/explosion investigation techniques. The course material includes theory of legal search and seizure, burn pattern analysis, collection of evidence, ignition sources, fire investigations of structures, vehicles and wildland, report writing, and testifying in court as a fire cause and origin expert. This course may be offered in a distance education format.

**FIRS 191  FIRE INVESTIGATION 1B – 2 Units**  
*Class Hours: 36 lecture/9 lab total (when offered in the Distance Education format, hours will total 117)*  
This course concentrates on fire evidence identification, preservation and collection including blood stains, paint and fiber evidence, volatile flammables, soil and gunshot residue, fingerprint/shoe print and the track impressions, etc. In addition, this course covers interviewing, fire information sources, and investigation of fatal fires. This course may be offered in a distance education format.

**FIRS 193  TRAINING INSTRUCTOR 1A (COGNITIVE) – 1.5 Units**  
*(formerly FIRS 182)*  
*Class Hours: 18 lecture/27 lab total (when offered in the Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab, totaling 81 hours for this course)*  
This is the first of a three-course series. Topics include methods and techniques for training in accordance with the latest concepts in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching cognitive lessons; criteria and methods to evaluate teaching and learning efficiency; and an opportunity to apply major principles of learning through teaching demonstrations. Two (2) student instructor teaching demonstrations are required of all. The lecture portion of this course may be offered in a distance education format.

**FIRS 194  TRAINING INSTRUCTOR 1B (PSYCHOMOTOR) – 1.5 Units**  
*(formerly FIRS 181)*  
*Prerequisite: FIRS 193 with a grade of C or higher  
Class Hours: 18 lecture/27 lab total (when offered in the Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab, totaling 81 hours for this course)*  
This is the second of a three-course series. Topics include methods and techniques for training in accordance with the latest concepts in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching psychomotor lessons; criteria and methods to evaluate teaching and learning efficiency; and an opportunity to apply major principles of learning through teaching demonstrations. Two (2) student instructor teaching demonstrations are required of all. The lecture portion of this course may be offered in a distance education format.

**FIRS 195  TRAINING INSTRUCTOR 1C (INSTRUCTIONAL DEVELOPMENT TECHNIQUES) – 1.5 Units**  
*Prerequisite: FIRS 193 and FIRS 194 with a grade of C or higher  
Class Hours: 18 lecture/27 lab total (when offered in the Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab, totaling 81 hours for this course)*  
This is the third of a three-course series. Topics include methods and techniques for developing lesson plans, ancillary components, and tests in accordance with the latest concepts in career education. The course offers the opportunity to develop, receive feedback, and finalize instructional materials and deliver a teaching demonstration. Two (2) student instructor teaching demonstrations are required of all. The lecture portion of this course may be offered in a distance education format.

**FIRS 360  LIVE FIRE TRAINING, BASIC STRUCTURAL OPERATIONS – 0 Units**  
*Class Hours: 9 lecture/9 lab total  
Grading: Pass/No Pass Option  
This course provides the student with hands-on firefighting experience in fire behavior, ventilation, overhaul, interior and exterior fire attack operations.*

**FIRS 361  ROPE RIGGING FOR RESCUE – 0 Units**  
*Class Hours: 9 lecture/9 lab total  
Grading: Pass/No Pass Option  
This course provides the student with hands-on rescue experience in utilizing ropes and related rope rescue equipment. Topics will include: incident and scene assessment, ropes and hardware, knots, rappelling techniques and mechanical advantage systems.*

**FIRS 362  BASIC FIRE BEHAVIOR AND CHEMISTRY – 0 Units**  
*Class Hours: 18 lecture total  
Grading: Pass/No Pass Option  
This course provides the student with the concepts of the fire triangle and tetrahedron, fire chemistry, fire behavior, products of combustion, types of extinguishing agents, hazardous materials properties and effects, and oxidizing agents.*

**FIRE TECHNOLOGY/WILDLAND**  
**FIRE TECHNOLOGY LOGISTICS** *(FTWL)*

**FTWL 101  WILDLAND FIRE BEHAVIOR – 3 Units**  
*Class Hours: 54 lecture total  
Grading: Pass/No Pass Option  
This course of study is to provide the information necessary to understand wildland fire behavior. The course includes influences that affect basic wildland fire behavior, the seven wildland fire environment factors which must be continuously monitored in making wildland fire behavior predictions, and providing the tools to make spot fire behavior predictions.*

**FTWL 102  WILDLAND FIREFIGHTER SAFETY AND SURVIVAL – 3 Units**  
*Class Hours: 54 lecture total  
Grading: Pass/No Pass Option  
This course of study places emphasis on avoiding situations and conditions which have resulted in fire shelter deployments, serious injuries and fatalities for wildland firefighters.*

**FTWL 103  WILDLAND FIRE OPERATIONS – 3 Units**  
*Class Hours: 54 lecture total  
Grading: Pass/No Pass Option  
This course of study presents the command structure and operational processes for ground and air operations in the control of wildland fires.*

**FTWL 110  DISPLAY PROCESS S-245 – .5 Unit**  
*Class Hours: 9 lecture total  
Grading: Pass/No Pass Option  
A course of study that presents information to enable the student to be able to function as a Display Processor on a wildland fire incident. The course includes how to determine logistical needs, including work materials and work area, how to identify sources of information and collect data, and to identify and be able to create required maps, overlays and displays. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employee recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).*
FTWL 118 INCIDENT COMMUNICATIONS TECHNICIAN S-258 – 2 Units
Grading: Pass/No Pass Option
Class Hours: 36 lecture total
This course of study presents information necessary for the student to be able to function as a Communications Unit Leader on a wildland fire incident. This course includes clear text radio transmissions, interrelationships between ICS functions and the Communications Unit Leader, organize and staff the Communications Unit, and develop an effective communications plan based on the needs for each operational period and complete the necessary paperwork and forms. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

FTWL 132 SUPPLY UNIT LEADER S-356 – 1.5 Units
Grading: Pass/No Pass Option
Class Hours: 27 lecture total
This course of study presents the information necessary for the student to be able to function as a Supply Unit Leader on a wildland fire incident. This course includes description of the activities of the Supply Unit, what is needed to set up and staff Supply Unit, organization of and staffing of Supply Unit, and demobilization. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

FTWL 134 COMMUNICATIONS UNIT LEADER S-358 – 4 Units
Grading: Pass/No Pass Option
Class Hours: 72 lecture total
This course of study presents the information necessary for the student to be able to function as a Communications Unit Leader on a wildland fire incident. The course includes how to assess communications capabilities/limitation during preparation of the incident action plan, preparation and implementation of the incident radio communications plan, and supervise communications unit activities. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

FIRE TECHNOLOGY/WILDLAND FIRE TECHNOLOGY OPERATIONS (FTWO)

FTWO 110 BASIC WILDLAND FIRE ORIENTATION S-110 – .5 Unit
Grading: Pass/No Pass Option
Class Hours: 9 lecture total
This course of study provides information that is essential for a non-operations individual assigned to a wildland fire incident to have a successful first assignment. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

FTWO 111 FIREFIGHTER TRAINING S-130 – 2 Units
Class Hours: 36 lecture total
This course of study is designed to train new firefighters in basic firefighting skills, and the knowledge necessary to effectively handle wildland firefighting situations. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

FTWO 112 ADVANCED FIREFIGHTER TRAINING S-131 – .5 Unit
Class Hours: 9 lecture total
This course of study provides advanced wildland firefighting training and education for those who wish to become qualified in the first level supervision position of Advanced Firefighter/Squad Boss. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the U.S. Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

FTWO 113 INTRODUCTION TO WILDLAND FIRE BEHAVIOR S-190 – .5 Unit
Grading: Pass/No Pass Option
Class Hours: 9 lecture total
This course of study provides an introduction to wildland fire behavior issues that are important to wildland fire spread and safety to firefighters involved in suppression. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

FTWO 114 INITIAL ATTACK INCIDENT COMMANDER TYPE 4 (ICT4) S-200 – 1.5 Units
Grading: Pass/No Pass Option
Class Hours: 27 lecture total
This course of study is designed to provide the initial attack commander of small non-complex wildland fires with the ability to safely suppress the fire within the guidelines of the Incident Command System, and agency guidelines. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United
States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 115 SUPERVISING CONCEPTS AND TECHNIQUES S-201 – 1 Unit**
Grading: Pass/No Pass Option  
Class Hours: 18 lecture total

This course of study is for the experienced wildland firefighter to be able to apply the principles of communication and supervision required of a small unit leader (Single Resource Boss or Squad leader). Note: While anyone may enroll in this course, students will find that the content is more applicable when they have had two or three years of work experience in a fire or non-fire vocational field.

**FTWO 117 PORTABLE PUMPS AND WATER USE S-211 – 1.5 Units**  
Class Hours: 27 lecture total

This course of study is for firefighters needing formal training in order to gain competency in the use of portable pumps and water in wildland firefighting. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 118 WILDFIRE POWERSAWS S-212 – 1 Unit**  
Class Hours: 16 lecture/12 lab total

Wildfire Power saws is a required course for those planning to operate, or directly supervise, the operation of chain saws on wildfires. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 122 ENGINE BOSS S-231 – .5 Unit**
Grading: Pass/No Pass Option  
Class Hours: 9 lecture total

This course of study is to prepare advanced firefighters/squad bosses with the ability to understand the function as an engine boss in the control of wildland fires. This course presents the issues of tactics and safety in the control of wildland fires, and identifies the mobilization and demobilization procedures of an engine crew on a wildland fire incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 125 IGNITION OPERATIONS S-234 – 1 Unit**
Grading: Pass/No Pass Option  
Class Hours: 18 lecture/8 lab total

This course of study presents the application of safety considerations involved in a firing operation. It also provides the student with the necessary information to operate, maintain and use firing devices, and to use backfire as an indirect attack method against a rapidly spreading wildfire. The student will also learn the proper application of fire suppression firing methods and practices. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 128 FIELD OBSERVER S-244 – 1.5 Units**
Class Hours: 18 lecture/27 Lab total

A course of study providing the student with the necessary skills to operate as a Field Observer on a wildland fire incident. This course presents an understanding of the various types of maps used in wildland fire control, map scale and use in determining location of wildland fire, topographic maps and how to use them, and be able to perform calculations to determine the size of fire on a map. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 129 INTERAGENCY INCIDENT BUSINESS MANAGEMENT S-260 – 1.5 Units**
Grading: Pass/No Pass Option  
Class Hours: 27 lecture total

This course of study is designed to teach the basic concepts of fiscal management of wildland fire incidents. It includes correct and fiscally sound personnel and equipment procurement, time recording, and proper documentation. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current
This course covers aircraft types and capabilities, aviation management and safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. Note: The regulations, procedures and policies addressed in this course are primarily those governing federal agency and ICS operations. State, county, or other political subdivisions using this course will need to consult their agency having jurisdiction with respect to regulations, procedures and policies. Note: While any student can take this course, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees' recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 132 INTERMEDIATE WILDLAND FIRE BEHAVIOR S-290 – 2 Units**

Prerequisite: FTWO 113 with a grade of C or higher

Class Hours: 36 lecture total

This is a classroom-based skills course designed to prepare the prospective fireline supervisor to undertake safe and effective fire management operations. It is the second course in a series that collectively serves to develop fire behavior prediction knowledge and skills. Fire environment differences are discussed as necessary and should include local conditions affecting fire behavior. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division Office or at the National Interagency Fire Center Web Site (www.nifc.gov). This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

**FTWO 133 INCIDENT COMMANDER EXTENDED ATTACK S-300 – 1 Unit**

Class Hours: 18 lecture total

This course of study presents the information necessary for the student to be able to function as an Incident Commander Type 3 (ICT 3). The course is presented in a lecture/discussion format and supplemented with group exercise. The six instructional units cover: Information Gathering; Planning; Supporting Organization; Operations; Transitioning; and demobilization/Administrative Requirement. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).
(as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 141 AIR SUPPORT GROUP SUPERVISOR J-375 – 1.5 Units**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 27 lecture total

The Air Support Group Supervisor is primarily responsible for supporting and managing logistical support for helibase and helispot operations. This position identifies resources, supplies dispatched for air support group, requests special air support teams from appropriate sources through logistics section, determines need for assignment of personnel and equipment at each helibase and helispot, and maintains coordination with airbases supporting the incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 144 INTRODUCTION TO WILDLAND FIRE BEHAVIOR CALCULATIONS S-390 – 2 Units**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 36 lecture total

This course of study teaches the concepts required in calculating wildland fire behavior for safe and effective fire management operations. It includes local and regional fire behavior issues that are critical to wildland firefighting, comparison of the effects of daytime solar radiation and nighttime heat losses from various sources, descriptions of the effects of terrain, vegetation, clouds, and wind on relative humidity, three types of inversions, and description of their effects on wildland fire behavior. The relationship among general, local (convective), 20-foot, and mid-flame winds is presented along with a description of how topography affects fuels and their availability for combustion. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 148 STANDARDS FOR SURVIVAL – .5 Unit**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 9 lecture total

This course of study presents the introductory information for wildland firefighters on the safety aspects of how to fight fire aggressively but provide for safety first. This course includes information on how to initiate all action based on current and expected fire behavior, how to recognize current weather conditions and obtain forecasts, obtain current information on fire status, and to remain in communication with crew members, your supervisor, and adjoining forces. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 150 COMMAND & GENERAL STAFF S-420 – 2 Units**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 36 lecture total

This course of study presents advanced training for those individuals who will be assigned to the Command and General Staff positions on a wildland fire incident. This course presents topics that will develop the skills and knowledge that are necessary to perform on wildland Type 2 incidents in a command or general staff position, information required to set up organizational elements necessary to mitigate a wildland fire incident, how to request additional resources as needed, and supervision issues related to coordination of staff activity. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 151 LOOK UP, LOOK DOWN, LOOK AROUND S-133 – .5 Unit**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 9 lecture total

This course of study is a wildland fire behavior refresher for experienced wildland firefighters. It presents the three principle environmental elements affecting wildland fire behavior, three factors of wind that affect the start and spread of wildland fire, three factors of weather that affect fuel moisture, how fuels affect wildland fire spread, four factors of topography that affect wildland fire behavior, and descriptions of the dangerous conditions that can develop in a box canyon and steep narrow canyons. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 155 INCIDENT TRAINING SPECIALIST S-445 – 1 Unit**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 18 lecture total

A course of study that presents the information needed to organize and implement an incident training program. This course includes how to analyze and prescribe training assignments to fulfill individual development needs of trainees, and to properly document individual trainee performance and the incident training program. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWO 158 FACILITATIVE INSTRUCTOR M-410 – 2 Units**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 40 lecture total

This training course is designed to help students become effective facilitative instructors. The purpose of this course is to improve training
delivery and quality by presenting instructional methods with an emphasis on student-oriented adult training techniques. This course is designed for students to meet NWCG instructor requirements. Note: While any student can take this course, for National Wildfire Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees’ recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov). This course may be offered in a distance learning format.

**FTWO 160  HAZARDOUS MATERIALS FIRST RESPONDER UPDATE – .5 Unit**
**Class Hours:** 9 lecture total

This course of study prepares the student to respond to a Hazardous Materials incident in a safe and competent manner and be able to function at an operational level. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FIRST AID/CPR/EMT (FAID)**

**FAID 130  PUBLIC SAFETY FIRST AID (EMS) – 1 Unit**
**Class Hours:** 9 lecture/27 lab total

This course meets Public Safety Training Standards covered by the U.S. Department of Transportation and is recognized by the local EMS Agency.

**FAID 132  EMERGENCY MEDICAL RESPONDER (EMR) – 2 Units**
**Class Hours:** 27 lecture/27 lab total

This course teaches techniques in emergency medical care for the First Responder, which includes Automatic External Defibrillator training. This course also meets Public Safety Training Standards covered by the U.S. Department of Transportation curriculum and approved by the local EMS agency. Note: Students must make application through NorCal E.M.S. for certification.

**FAID 133  CERTIFICATION CPR FOR THE PROFESSIONAL RESCUEUR – 5 Unit**
**Class Hours:** 9 lecture total

This course will cover CPR and how to treat for foreign body obstruction in adults, children, and infants. Designed for the professional rescuer. Upon successful completion of this course, students may apply to be certified in CPR by the agency having jurisdiction.

**FAID 175  EMERGENCY MEDICAL TECHNICIAN 1 BASIC – 5 Units**
**Prerequisite:** FAID 133 with a grade of C or higher, Certification CPR and First Responder, which includes Automatic External Defibrillator training and approval in accordance with the Interagency Prescribed Fire Planning and Implementation Reference Guide. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWP 109  PRESCRIBED FIRE PLAN IMPLEMENTATION RX-341– 2 Units**
**Class Hours:** 36 lecture total

The purpose of this course is to provide students with the skills/knowledge to prepare a prescribed fire plan for technical review and approval in accordance with the Interagency Prescribed Fire Planning and Implementation Reference Guide. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWP 110  PRESCRIBED FIRE IMPLEMENTATION RX-301– 1.5 Units**
**Class Hours:** 27 lecture total

Prescribed Fire Implementation RX-301 is designed to introduce students to the tools and techniques used to perform the job of a Prescribed Fire Burn Boss (RXB). The course is based on the tasks in the RXB position task book. It leads students through the duties and responsibilities associated with the RXB position. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).

**FTWP 114  WILDFIRE ORIGIN AND CAUSE DETERMINATION P-151 – 1.5 Units**
**Class Hours:** 18 lecture/27 lab total

This course of study presents the information necessary for the student to be able to conduct a wildfire investigation, record information about the fire, determine the origin of the fire, determine the cause of the fire, properly collect and preserve evidence, interview witnesses and obtain suspect information, prepare and write reports, and how to present testimony before a judge and/or jury. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (www.nifc.gov).
statewide written and skills examination. (As of 1/1/2006 the state has adopted the National Registry EMT exam as its statewide exam. Upon successful completion of the statewide exam, the student must submit an application to the Local EMS Agency for certification, which is valid statewide).
3. This class meets for additional time "outside" of the scheduled weekly meeting time. This may include Saturdays, Sundays or night shifts.
4. State regulations require the EMT students possess CPR training equivalent to the 2010 American Heart Association’s Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care at the Healthcare Provider level as a prerequisite for admission to an EMT-1 basic course.
5. Students are required to purchase nitrate gloves, 1-way pocket mask valve and a Shasta College EMT Program student photo ID card.
6. Students must submit proof of a drug screening and a background check through a Shasta College approved vendor prior to going into clinical facilities. Shasta college personnel must review and approve test results prior to students participating in clinical observations.

Class Hours: 58 lecture/109 lab

An intensive course to assist the student with developing skill in recognition of symptoms of illness and injuries, and proper procedures in emergency care. Upon successful completion of the course, the student must make application through Northern California Emergency Medical Services, Inc., for certification.

FAID 178 EMT 1 BASIC RECERTIFICATION– 1 Unit
(formerly FAID 178AD)
Class Hours: 18 lecture/14 lab total

A comprehensive review of signs and symptoms of illness and traumatic injuries. Skills necessary to provide immediate temporary care of such victims are also reviewed. Course is approved by Northern California Emergency Medical Services, Inc. and Sierra-Sacramento Valley EMSA for the purpose of EMT recertification. Upon successful completion of the course, the student may make application through Northern California Emergency Medical Services, Inc. (Trinity County only), and Sierra-Sacramento Valley EMSA (Shasta & Tehama Counties only) for recertification. Note: This course may also be taken to satisfy the requirements for recertification as a first responder.

FRENCH (FREN)

Two years of high school foreign language with grades of "C" or better is equivalent to one semester of foreign language at Shasta College.

FREN 1 ELEMENTARY FRENCH – 5 Units
Grading: Pass/No Pass Option
Class Hours: 90 lecture total

This introductory course is designed to give the student intensive practice in speaking and listening to French, and reading and writing in French, with additional emphasis on grammar and pronunciation. The class will focus on communication relating to daily life and routine activities, such as people and places, family life, weather, leisure-time activities, and the foods we eat. Also, students are introduced to the culture of French-speaking people.

FREN 2 ELEMENTARY FRENCH – 5 Units
Grading: Pass/No Pass Option
Prerequisite: FREN 1 with a grade of C or higher or Foreign Language Placement Level 2 or higher
Class Hours: 90 lecture total

In this continuation of Elementary French, there is continued emphasis on listening to oral French and on speaking the language, along with writing and reading French. Students expand their language skills and vocabulary, improving their ability to ask and answer questions, to discuss daily life, events in the past or present, travel, leisure-time activities and shopping. Students will read short texts about French history and culture, as well as watch videos about French-speaking countries.

FREN 3 INTERMEDIATE FRENCH – 3 Units
Grading: Pass/No Pass Option
Prerequisite: FREN 2 with a grade of C or higher, or Foreign Language Placement Level 3 or higher
Class Hours: 54 lecture total

A thorough review of basic communication skills (speaking, listening, reading, and writing) and informal study of the patterns of French. Students continue to strengthen their speaking skills as they work toward mastery of the language. The course includes reading expository writing along with pieces of French literature.

FREN 4 INTERMEDIATE FRENCH – 3 Units
Grading: Pass/No Pass Option
Prerequisite: FREN 3 with a grade of C or higher or Foreign Language Placement Level 4 or higher
Class Hours: 54 lecture total

The fourth semester of the language emphasizes conversation, contemporary literature, French culture and composition. Reading selections include poetry, theatre, and journalistic expressions.

GEOGRAPHY AND GEOSPATIAL TECHNOLOGIES (GEOG)

GEOG 1A PHYSICAL GEOGRAPHY– 3 Units
Class Hours: 54 lecture total

This course explores Earth's physical systems, their dynamic processes, and surface expressions. Topics include weather, climate, hydrology, tectonics, geomorphology, and the biosphere. Attention is given to spatial patterns and impacts of human activities.

GEOG 1AL PHYSICAL GEOGRAPHY LAB – 1 Unit
Grading: Pass/No Pass Option
Corequisite: GEOG 1A
Class Hours: 54 lab total

This course explores Earth’s physical systems, through lab and field activities. Scientific method of inquiry is employed to the interpretation of climate, landforms, water, and living communities. Scientific data will be collected, displayed, and interpreted, for a range of Earth processes and formations. Students will use map products to make observations, take geographic measurements, and interpret phenomena. Students will also interpret physical phenomena, such as temperature, pressure, and humidity as they relate to geographic location.

GEOG 1B CULTURAL GEOGRAPHY – 3 Units
Advisory: ENGL 280 with a grade of C or higher or English Placement Level 5 or higher
Class Hours: 54 lecture total

This course examines the relationships among world cultures in order to investigate population, religion, language, and other societal characteristics. It also analyzes spatial differences among cultures including housing types, family usage of space within the house, and city planning. The role that physical geography plays in determining cultural attitudes and the influence that cultural geography has on the natural ecology are also discussed. This course may be offered in a distance education format.

GEOG 2A FIELD GEOGRAPHY (PHYSICAL) – 1 Unit
Grading: Pass/No Pass Option
Note: Field excursions will vary throughout California, Southern Oregon and Western Nevada over a three-day weekend or over a series of three Saturdays.
Class Hours: 9 lecture/27 lab total

Field observation of physical processes and formations are essential to the study of geography. Landforms, water resources, erosion hazards, soil conditions, and vegetation patterns are among the topics that illustrate the interactions between humans and the environment. Each course offering will emphasize a particular topic in physical geography, with unique field sites selected to demonstrate the topics in question. Students will be exposed to a range of field techniques including sampling and the use of various types of measurement equipment. Field excursions will vary throughout California, Southern Oregon and Western Nevada over a three-day weekend or over a series of three Saturdays. Students will also attend three 3-hour lecture sessions. Additional field trip fees for lodging, entrance fees and related items will be specified in the course schedule.
GEOG 2B FIELD GEOGRAPHY (CULTURAL) – 1 Unit
Grading: Pass/No Pass Option
Note: Field excursions will vary throughout California, Southern Oregon and Western Nevada over a three-day weekend or over a series of three Saturdays.
Class Hours: 9 Lecture/27 Lab total
Field observation and analysis of human landscapes is essential to the student cultural geography. Topics including land-use patterns, economic and transportation systems, wealth disparities, cultural practices and historical legacies will be explored in the field. Each course offering will emphasize a particular topic in cultural geography, with unique field sites selected to demonstrate the topic in question. Students will be exposed to field techniques including note taking, interviews, field mapping, and document research. Field excursions will vary throughout California, Southern Oregon and Western Nevada over a three-day weekend or over a series of three Saturdays. Students will also attend three 3-hour lecture sessions. Additional trip fees for lodging, entrance fees and related items will be specified in the course schedule.

GEOG 5 DIGITAL PLANET: GIS AND SOCIETY – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will explore the technologies and the societal implications of our digital planet. Specific attention is given to geospatial technologies which provide locational services, imagery, mapping and other capabilities. In addition to use in industry, government, and non-profit sectors, these technologies are also common on mobile devices and in Internet applications. Investigation of issues related to society, population, and geo-politics will be undertaken using a variety of Internet-based technologies that are ideally suited to analyzing sociological data and geographic patterns. This course will also consider issues of geographic perception, social justice, equity, privacy, and representational accuracy of our digital planet. This course may be offered in a distance education format.

GEOG 7 CALIFORNIA GEOGRAPHY – 3 Units
Advisory: ENGL 280 with a grade of C or higher or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides an introduction to California's diversified geography including climate, landforms, natural vegetation, and mineral and water resources. The cultural landscapes of ethnic diversity, our Native American past, urban and agricultural regions and the economic challenges of the future are also examined. California Geography examines these topics, their spatial distributions and their impact on the environment. Class includes a Saturday field trip; Internet offering includes a virtual field trip. This course may be offered in a distance education format.

GEOG 8 WORLD REGIONAL GEOGRAPHY – 3 Units
Advisory: ENGL 280 with a grade of C or higher or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will introduce students to the world’s major geographic regions. This course will increase student awareness of geographic concepts by examining the physical, cultural, economic and political characteristics of the major realms of the world through the unifying concept of the geographic region. This course will illustrate the importance of the world’s geographic regions and how they interrelate. The location of important geographic features such as mountain ranges, rivers, countries, and major cities will be an important part of the course. This course may be offered in a distance education format.

GEOG 9 MAP AND GEOSPATIAL PRINCIPLES – 3 Units
Grading: Pass/No Pass Option
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to maps, imagery, and geospatial technologies. Students will learn geographic techniques for data collection, interpretation, and presentation. Map principles along with types of maps and their applications are covered. Methodologies include map reading, use of imagery, geographic information systems (GIS), global positioning systems (GPS), and map creation. This course may be offered in a distance education format.

GEOG 10 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS – 3 Units (formerly GIS 10, NR 84)
Grading: Pass/No Pass Option
Corequisite: GEOG 9, or previous completion of GEOG 9 with a grade of C or higher
Advisory: CIS 1 with a grade of C or higher or demonstrated computer literacy.
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This course covers the theory and practice of geographic information systems (GIS). Students learn essential GIS procedures for data viewing, acquisition, manipulation, geographic referencing, and map creation. GIS data types, properties, database operations and applications are covered. Basic methods of GIS analysis are also included. This course may be offered in a distance education format.

GEOG 12 GIS DATA DESIGN AND CAPTURE – 3 Units
Grading: Pass/No Pass Option
Prerequisite: GEOG 10 with a grade of C or higher
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This course covers design and implementation of geographic databases for GIS data capture and management. Included are essential concepts and practices of relational database management systems, with specific application to GIS. Data is captured using GPS and mobile GIS methods. GIS digitizing and editing are also covered. This course may be offered in a distance education format.

GEOG 13 GIS SPATIAL ANALYSIS – 3 Units
Grading: Pass/No Pass Option
Prerequisite: GEOG 10 with a grade of C or higher
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This course covers GIS for investigating geographic patterns, relationships and connections. Spatial analysis methods are employed for both raster and vector data. Emphasis is on problem-solving and decision making using GIS. Models and scripts for automating GIS processes are undertaken. This course may be offered in a distance education format.

GEOG 14 GIS CARTOGRAPHY AND VISUALIZATION – 3 Units
Grading: Pass/No Pass Option
Prerequisite: GEOG 10 with a grade of C or higher
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This course covers fundamental concepts of cartography and visualization using geographic information systems (GIS). Students employ design principles to create effective maps, incorporating data from a variety of formats. Hardcopy and web maps are produced. Animations, 3D maps, and other visualization techniques are explored. This course may be offered in a distance education format.

GEOG 15 INTRODUCTION TO REMOTE SENSING – 3 Units
Grading: Pass/No Pass Option
Prerequisite: GEOG 9 with a grade of C or higher
Class Hours: 36 lecture/5 lab total (when offered in the Distance Education format, hours will total 162)
This course covers remote sensing fundamentals as they apply to mapping of Earth's surface. Electromagnetic spectrum of radiant energy and the radiation emitted from Earth surface provide a foundation for understanding of types of imagery available and their characteristics. Image enhancement, classification and quantitative techniques are explored with attention to integration with GIS datasets. Application of remote sensing for land cover change,
vegetation classification, and environmental quality are explored. This course may be offered in a distance education format.

**GEOG 21 GIS-CAD INTEGRATION – 1 Unit (formerly GIS 21)**
Grading: Pass/No Pass Option
Advisory: GEOG 10 with a grade of C or higher or working experience with CAD or GIS
Class Hours: 9 lecture/27 lab total (when offered in the Distance Education format, hours will total 54)

This course covers computer-aided drafting (CAD) structure, principles and processes as they apply to geographic information systems (GIS). CAD data management is a critical aspect of GIS. Students will work with various CAD data to learn processing and manipulation techniques for displaying and working with CAD data in a GIS. Preparation and georeferencing of CAD data will be key components of the course. AutoCAD and ArcGIS software will be used in this course. This course may be offered in a distance education format.

**GEOG 24 CUSTOMIZING GIS – 1 Unit (formerly GIS 24)**
Grading: Pass/No Pass Option
Advisory: GEOG 10 with a grade of C or higher
Class Hours: 9 lecture/27 lab total (when offered in the Distance Education format, hours will total 54)

This course introduces students to customizing GIS applications to improve efficiency for specific editing and data manipulation scenarios. Several methods for customizing ArcGIS will be introduced including loading pre-built third party tools, creating custom toolbars, custom buttons, geoprocessing toolboxes, geoprocessing models, along with a brief introduction to writing scripts. The course will briefly introduce the students to programming ArcObjects with VBA and Python for programming scripts. This course may be offered in a distance education format.

**GEOG 25 GIS PROJECTS – 1 Unit (formerly GIS 25)**
Grading: Pass/No Pass Option
Advisory: GEOG 10 with a grade of C or higher or working GIS experience
Class Hours: 9 lecture/27 lab total (when offered in the Distance Education format, hours will total 54)

This course provides students with skills in GIS project design, implementation and management. Successful GIS projects require a systematic approach to identification of system objectives, required resources and implementation approach. Acquisition and management of data, along with project documentation, will also be covered. Students will apply these skills through the design and implementation of a project. Projects will be presented to other GIS users. ArcGIS, ArcPad, and ArcIMS will be the primary software used for the course. This course may be offered in a distance education format.

**GEOG 94 GEOGRAPHIC INFORMATION SYSTEMS WORKSITE LEARNING – 1-8 Units (formerly GIS 94)**
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

**GEOLOGY**
See Earth Science – ESCI

**GERMAN (GERM)**
Two years of high school foreign language with grades of “C” or better is equivalent to one semester of foreign language at Shasta College.

**GERM 1 ELEMENTARY GERMAN – 5 Units**
Grading: Pass/No Pass Option
Class Hours: 90 lecture total

This course is designed to give the student training in spoken German at a basic level, including some reading, writing, and much speaking. Students gain aural comprehension level of German through basic conversation and listening skill development. Customs and culture are also emphasized.

**GERM 2 ELEMENTARY GERMAN – 5 Units**
Grading: Pass/No Pass Option
Prerequisite: GERM 1 with a grade of C or higher, or Foreign Language Placement Level 2 or higher
Class Hours: 90 lecture total

This course takes the student on to a more proficient level of German. Comprehension and speaking levels are increased through participation in many oral activities (role playing, skits, plays, etc). Further information on culture and traditions are provided, including information regarding Germany’s position in the world today.

**HEALTH (HLTH)**

**HLTH 1 HEALTH AND WELLNESS – 3 Units**
(formerly PE 1, HPE 11)
Grading: Pass/No Pass Option
Class Hours: 54 lecture total

This course focuses upon those elements of human behavior which influence the health status of both the individual and the community. Topics include personal fitness, nutrition, sexuality, sexually transmitted disease, drug dependence including alcohol and tobacco. Also included are topics dealing with lifestyle disease, especially cancer, cardiovascular disease and lung disease.

**HLTH 2 NUTRITION AND FITNESS – 3 Units**
(formerly PE 2, HPE 7)
Grading: Pass/No Pass Option
Class Hours: 54 lecture

Analysis and evaluation of current practices and theories regarding nutrition and exercise, and their relationship to weight control and physical fitness. Each student will learn to prepare an individual physical assessment, exercise prescription and nutritional analysis to promote optimum healthful living.

**HLTH 3 SUBSTANCE ABUSE AWARENESS – 3 Units**
(formerly PE 3, HPE 57)
Grading: Pass/No Pass Option
Class Hours: 54 lecture total

An introductory course for individuals who wish to increase their knowledge and understanding of substance abuse and chemical addiction. This course will introduce students to a variety of substances that can become abused and can lead to addiction. The substances covered in this course include: Tobacco (including smokeless tobacco), alcohol, street/recreational drugs, performance enhancing drugs, and sexual stimulants. Information will focus on the physical and societal affects of the misuse and abuse of these substances and methods that can lead to the control and/or elimination of use of these substances.

**HEALTH OCCUPATIONS (HEOC)**
See Also: REGN, and VOCN

**HEOC 10 APPLIED PHARMACOLOGY – 3 Units**
(formerly HEOC 197)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

HEOC 10 is designed to introduce the principles of applied
pharmacology to the current or prospective nursing and allied health student. Students will explore the names, classifications, actions, uses, side effects, pharmacokinetics, pharmacodynamics, contraindications, and drug to drug interactions of medications. Topical pharmacological issues will be discussed. Additionally, students will learn how to use a drug guide to gain basic knowledge about medications. This course may be offered in a distance learning format.

HEOC 94 HEALTH OCCUPATIONS WORKSITE LEARNING – 1-8 Units

Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.

Class Hours: 75 hours paid or 60 hours non-paid per unit

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

HEOC 100 PREPARING FOR A NURSING CAREER – 2 Units

Class Hours: 36 Lecture total (when offered in the Distance Education format, hours will total 108)

This course presents the role of the Associate Degree Nurse and the Vocational Nurse within various healthcare settings. Students will assess their own learning styles and compare their abilities to those required in nursing. Critical thinking skills will be introduced and applied to various scenarios using the knowledge base acquired from prerequisite courses and life experiences. Written, verbal, and math skills will be emphasized, along with exercises in examination, presentation, and interview skills. Learning resources, study strategies and stress management will be addressed to prepare the Associate Degree Nursing and Vocational Nursing candidate for the rigors of being a nursing student. This course may be offered in a distance education format.

HEOC 130 NURSE ASSISTANT – 11 Units

Class Hours: 128 Lecture, 256 Lab total

Limitation on Enrollment: Students must meet health and safety clinical requirements. See www.shastacollege.edu/HSUP/NA-HHA/generalinformation or call 530-339-3600 for detailed information on requirements.

Note: Upon enrollment all students must be fingerprinted through the Live Scan process. Students will not receive a certificate until they have received criminal record clearance.

This course is designed to prepare students to perform the basic skills required for employment as a Certified Nursing Assistant. The course is approved by the Department of Public Health and certificates will be issued upon successful completion of the course. Students are then eligible to apply for the state competency examination for certification.

HEOC 131 HOME HEALTH AIDE – 1.5 Units

Grading: Pass/No Pass Only

Class Hours: 20 Lecture, 27 Lab total

Limitation on Enrollment: Students must complete HEOC 130 with a grade of C or higher, and pass the National Nurse Aide Assessment Program examination or possesses current Nurse Assistant Certification.

Course is designed to prepare students to provide nursing care in the home setting by expanding the role of the nurse assistant. Upon successful completion students will be eligible for Home Health Aide certification through the California Department of Public Health.

HEOC 160 STRESS MANAGEMENT – 2 Units (formerly HEOC 185)

Class Hours: 36 lecture total

This class is designed to teach students the skills needed to recognize that all stressors affecting our actions are driven by our beliefs and values and how they affect the choices we make in dealing with stress. It will provide students with the opportunity to practice a variety of coping techniques that will assist them in making their lives less stressful. These techniques will include relaxation, the development of a support system, effective communication and listening. Students will gain the knowledge necessary to recognize their uniqueness and the importance of developing their personal power. Upon completion of this course, students will have the skills necessary to know how choices affect the quality of their lives and how to bring about positive life-style change.

HISTORY (HIST)

HIST 1A HISTORY OF WESTERN CIVILIZATION – 3 Units

Grading: Pass/No Pass Option

Advisory: ENGL 190 with a grade of C or higher or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

A survey of the origins and development of civilization in the western world from pre-history to 1600, with special emphasis on institutions, thought, and culture. The course is designed to show the continuity of western civilization and to overview the heritage of the present generation. This course may be offered in a distance education format.

HIST 1B HISTORY OF WESTERN CIVILIZATION – 3 Units

Grading: Pass/No Pass Option

Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

A survey of the development of civilization in the western world from 1600 to the present, with special emphasis on institutions, thought, and culture. The course is designed to show the continuity of western civilization and to explore the heritage of the present generation. This course may be offered in a distance education format.

HIST 2 WORLD CIVILIZATION TO 1500 C.E. – 3 Units

Grading: Pass/No Pass Option

Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

A comparative survey of the major ancient world civilizations which developed between 3500 B.C.E. and 1500 C.E. Political institutions, religious ideologies, rise and fall of empires and the major cultural innovations of each of the major world civilizations will be considered. This course may be offered in a distance education format.

HIST 3 WORLD CIVILIZATION: 1500 to Present – 3 Units

Grading: Pass/No Pass Option

Advisory: ENGL 190 with a grade of C or higher or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

A survey of the development of the major civilizations of the world from 1500 to the present. The focus is on the political, economic, social, intellectual and religious forces present in the rise of Africa, the Americas, Asia and Europe from 1500 to the present day. The study of the dynamic interaction of peoples and cultures will give a multi-perspective view of world history. This course may be offered in a distance education format.

HIST 17A UNITED STATES HISTORY – 3 Units

Grading: Pass/No Pass Option

Advisory: ENGL 190 with a grade of C or higher or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course is a survey of the history of the United States from Pre-
Columbian Peoples to the end of Reconstruction. Topics include contact and settlement of America, the movement toward independence, the formation of a new nation and Constitution, westward expansion and manifest destiny, the causes and consequences of the Civil War, and Reconstruction. This course satisfies the CSU requirement for US History (US-1). This course may be offered in a distance education format.

**HIST 17B United States History – 3 Units**  
**Grading:** Pass/No Pass Option  
**Advisory:** ENGL 190 with a grade of C or higher or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course is a survey of the history of the United States from 1877 to the present. The course covers the rise of industrialization, the expansion of America into world affairs, the causes and results of the Great Depression, the world wars of the 20th century, the Cold War, and post-9/11 America. This course satisfies the CSU requirement for US History (US-1). This course may be offered in a distance education format.

**HIST 25 African American History – 3 Units**  
**Grading:** Pass/No Pass Option  
**Advisory:** ENGL 190 with a grade of C or higher or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course is a survey of the historical development and contributions of African Americans in the United States. Topics include African civilizations, the African slave trade and Diaspora, the development of African American culture, colonial and Antebellum slavery, Emancipation and Reconstruction, Jim Crow, the Harlem Renaissance, civil rights, African Americans at war, and the concepts of race, ethnicity, race relations, and social activism. This course may be offered in a distance education format.

**HIST 35 History of Mexican Americans – 3 Units**  
**Advisory:** ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher  
**Class Hours:** 54 lecture total

History 35 traces the social, economic, and political history of Mexican Americans from the Spanish conquest to the present. Focus will be on the historical trajectory of Mexican Americans as they emerged from a series of migrations, conflicts, and negotiations with Native Americans, Anglo Americans, and others. The course will also explore the unique social, economic, and political forces that shaped U.S. policies toward Mexican migrants and Mexican Americans.

**HIST 36 History of the Far East – 3 Units**  
**Advisory:** ENGL 190 with a grade of C or higher or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher  
**Class Hours:** 54 lecture total

An introduction to the contemporary Far East. Designed primarily for the student who has had no previous contact with the region. Survey of the people, cultures, economics, and current problems, with major emphasis on China and Japan. The majority of the survey deals with events since 1800.

**HIST 38 History of World Religions – 3 Units**  
**Advisory:** ENGL 190 with a grade of C or higher or English Placement Level 6, or higher or ESL 138 with a grade of C or higher  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

A course designed to give the student an understanding of the beliefs systems and historical development of the world’s religions and an appreciation of the contribution of religion to the cultural heritage in which he lives. This course may be offered in a distance education format.

**HIST 40 History and Government of California – 3 Units**  
**Grading:** Pass/No Pass Option  
**Advisory:** ENGL 190 with a grade of C or higher or English Placement Level 6, or higher or ESL 138 with a grade of C or higher  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

A survey of the history and government of California. Topics will include California Indians, Spanish colonization, Californios, US annexation, economic development, demographic shifts, and current social, political, and economic issues. This course may be offered in a distance education format.

**HIST 55 History of the American West – 3 Units**  
**Grading:** Pass/No Pass Option  
**Advisory:** ENGL 190 with a grade of C or higher or English Placement Level 6, or higher or ESL 138 with a grade of C or higher  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course is designed as a survey of the history of the North American West. The course covers the history of North American Indians, wars, statehood, resource extraction, demographic shifts, the relationship with the federal government, through the economic, political, and social issues of the present day. The course will introduce various ways of analyzing the history of the American West, including the Frontier Thesis, New Western History, and regionalism. In addition, the course will exam how the American West has been portrayed in popular literature, television, and film. This course may be offered in a distance education format.

**HIST 57 Russian History – 3 Units**  
**Grading:** Pass/No Pass Option  
**Advisory:** ENGL 190 or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

A general survey of the Russian State from the beginning of the Kievan era (1054) to modern Soviet Russia. Included will be an analysis of the cultural, religious, economic, and social institutions of each century. Particular emphasis will be placed on contemporary Soviet Russia. Contributions of individual Russian Leaders will be discussed. This course may be offered in a distance education format.

**HIST 178 Local History of Tehama County – 3 Units**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lecture total

A survey of the history of Tehama County. The course will examine the historical development of the country including the impact of geography, native peoples, economic development as shown in lumbering, agriculture, tourism and manufacturing and the impact and development of transportation including river navigation, roads and highways, railroads and the impact of technology. Special topics such as significant individuals, organizations, rise and fall of towns and cities will also be considered.

**HORTICULTURE**  
See AGEH and AGVIT for course listings

**HOSPITALITY (HOSP)**

**HOSP 10 Introduction to the Hospitality Industry – 3 Units**  
**Grading:** Pass/No Pass Option  
**Class Hours:** 54 lecture total (when offered in the Distance Education format, hours will total 162)

Overview of structure and relationship of components within the hospitality and travel industry. Economic and employment impact and review of food service, lodging, resorts, recreation enterprises, attractions, cruise, destination bureaus, travel agencies and related operations. Focuses on orientation to customer service, cultural/economic trends and career opportunities. This course may be offered in a distance education format.
HOSP 20 HOSPITALITY OPERATIONS MANAGEMENT – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

Principles of organization, management, and decision models applied to the tasks and challenges of hospitality operations. Involves techniques of problem solving (including planning, organizing, staffing, directing and controlling operations) in areas of front office operations, housekeeping, personnel and security. The course also examines a systematic approach to front office procedures by detailing the flow of business through a lodging operation beginning with the reservation process and ending with check-out and settlement. This course may be offered in a distance education format.

HOSP 35 COMPUTER APPLICATIONS IN THE HOSPITALITY INDUSTRY – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

Provides an overview of the information needs of lodging properties and food service establishments; addresses essential aspects of computer systems, such as hardware, software, and generic applications; focuses on computer-based property management systems for both front office and back office functions; and focuses on computer-based restaurant management systems for both service-oriented and management-oriented functions. This course may be offered in a distance education format.

HOSP 40 HUMAN RESOURCE MANAGEMENT IN THE HOSPITALITY INDUSTRY – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

Practical approach to the problems of human resource management in the hospitality industry. Introduction to the personnel function; selection and placement of personnel; the role of supervision with emphasis on induction, training, communications, performance, appraisal, and leadership style. Study of age and salary administration; motivation; and discussion of union-management relations. This course may be offered in a distance education format.

HOSP 45 RESTAURANTS, HOTELS, AND LAWFUL MANAGEMENT – 2 Units
Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)

This course explores potential legal issues and pitfalls that might impact the hospitality industry. The course covers legislation, such as the Civil Rights Act of 1991 and other federal discrimination laws dealing with employment and sexual harassment, Occupational Safety and Health Administration (OSHA) regulations, the Family and Medical Leave Act of 1993, the Americans with Disabilities Act, the Hotel and Motel Fire Safety Act of 1990, antitrust regulations, the National Labor Relations Act, copyright music laws, tax laws, tip reporting regulations, telephone resale regulations, consumer protection laws, franchise regulations, and product liability laws. This course is not intended to make the student a legal expert on the subject reviewed nor is it intended to be a substitute for the services or legal opinion of an attorney. Students will, however, be better able to recognize potential legal problems or potential lawsuits, which will assist them when consulting with an attorney on strategies to prevent legal issues from becoming more serious in their hospitality organization. This course may be offered in a distance education format.

HOSP 50 HOSPITALITY MARKETING, SALES AND ADVERTISING – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

Application of marketing principles and techniques in the hospitality industry. Emphasis on developing an understanding of consumers and using that knowledge to provide value and create consumer satisfaction while meeting financial goals. This course will also focus on practical sales techniques, proven approaches to selling to targeted markets, and advertising’s role in sales. This course may be offered in a distance education format.

HOSP 60 HOSPITALITY AND FINANCIAL MANAGEMENT – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course focuses on the generation and analysis of quantitative information for the purpose of planning, control and decision-making by managers at various levels in hospitality industry operation. Emphasis is placed on the need for and use of timely and relevant information as a vital tool in the management process. Also examines accounting functions to support hospitality management analysis. Special attention on: internal controls, cost-volume profit relationships, relevant costs for special decisions, flexible budgets, profit centers and tax implications of decisions. This course may be offered in a distance education format.

HOSP 65 HOSPITALITY SUPERVISION – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture (when offered in the Distance Education format, hours will total 162)

This course offers insight into the various aspects of supervision in the hospitality industry. Supervisory roles, responsibilities, and essential managerial skills shall be discussed. The goal of the course is to equip students with the necessary authoritative and decision-making skills to be used in the workplace. This course may be offered in a distance education format.

HOSP 68 HOSPITALITY WORKSITE LEARNING – 1.8-8 Units
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksit Learning Classes.
Class Hours: 75 hours paid or 60 hours non-paid per unit

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteering at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

HOSP 97 SPECIAL TOPICS IN HOSPITALITY - .5-2 Units
Grading: Pass/No Pass Option
Class Hours: 9-36 lecture total

This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in hospitality. A different topics will be addressed each time the class is taught and will be listed in the schedule of classes.

HOSP 98 SPECIAL LAB TOPICS IN HOSPITALITY – .5-2 Units
Grading: Pass/No Pass Option
Class Hours: 27-108 lecture total

This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in hospitality. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes.

HUMANITIES (HUM)

A series of interdisciplinary courses designed to meet Humanities General Education requirements for Transfer and the Associate in Arts Degree. Courses in the Fine Arts, Literature and Philosophy also meet this requirement. See a complete listing of courses in the current College class schedule.
HUM 2 EXPLORING THE HUMANITIES - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is designed to explore the humanities by examining expression of human values, ideas, concerns, and experience through the arts, literature, media and the social sciences. The reading of important works in the humanities, written analysis, and attendance at selected performances are major requirements of this course. This course may be offered in a distance education format.

HUM 4 HUMANITIES THROUGH THE FILM - 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An examination of the motion picture as an art form. Films from the silent era through contemporary works will be examined in order to analyze and appreciate them from philosophical, historical, literary, aesthetic and cultural perspectives. This course may be offered in a distance education format.

HUM 70 EXPLORING CONTEMPORARY TELEVISION – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is designed to explore the effect that television has had on contemporary culture, with regard to language, art, history, and aesthetics. The changing content of the television medium and its influence on society will be examined through the humanities perspective. This course may be offered in a distance education format.

HUM 304 ADVENTURES IN THE PERFORMING ARTS – 0 Units
Class Hours: 3-54 lecture total
Informal explorations of personalities, works and major themes in symphonic and chamber music, opera, modern drama, the American musical, and films, designed to promote increased personal appreciation and enjoyment of these forms of artistic expression.

INDEPENDENT STUDY (IS)

IS 99/199 INDEPENDENT STUDY – .5-3 Units
Class Hours: 27 hours for each ½ unit
Independent study provides a forum for advanced work in a given field of study. A student may contract with a full-time instructor to do independent study in a specific subject area in which he/she has exhausted the regular curricular offerings. For transfer level courses, the student must have a declared major or already possess a degree and have completed a minimum of 12 units at Shasta College. Note: Any combination of these courses may be repeated three times for a total of four enrollments or a maximum of six independent study units.

INDUSTRIAL TECHNOLOGY (INDE)

INDE 1 CAREER PLANNING FOR INDUSTRIAL TECHNOLOGY – 1 Unit
Class Hours: 9 lecture/27 lab total
Career opportunities and training requirements in Industrial Technology will be examined as well as small business employment and entrepreneurship. Students will be assisted in identifying career and business opportunities and developing career goals. This class is required of all Industrial Technology majors.

INDE 37 Electricity and Electronics – 3 Units
Class Hours: 36 lecture, 54 lab total
This course will provide the theory and hands-on electronic skills necessary for students in vocational or Career Technical Education courses such as the Automotive and Diesel Industrial Technology, Computers, Mechatronics, Energy, Heavy Equipment/Transportation programs and more. Course content includes electrical theory, components testing, and troubleshooting of many types of electrical systems including AC and DC systems.

INDE 38 INTRODUCTION TO INDUSTRIAL MECHATRONICS – 3 Units (form. INDE 138, ELEC 138, ELEC 138/139)
Advisory: INDE 37 with a grade of C or higher, MATH 101 with a grade of C or higher or Math Placement Level 3 or higher, and ENGL 280 with a grade of C or higher or English Placement Level 5 or higher
Class Hours: 36 lecture/54 lab total
This course is designed for students who wish to be introduced to the basic principles of electronics and electricity for various vocational and industrial applications. Topics include basic theory of DC and AC circuits, semiconductor theory, digital concepts, circuits and systems and their applications.

INDE 40 ENTREPRENEURIAL MANUFACTURING – 2 Units
Advisory: AGMA 44, BUAD 40, or WELD 73 with a grade of C or higher, or experience with hand tools, power tools, and machinery
Class Hours: 18 lecture/54 lab total (when offered in the Distance Education format, hours will total 108)
This course will introduce students to theory and hands on skills in small business manufacturing with the intent to develop products that will be manufactured and sold by the students in class. This course may be offered in a distance education format.

INDE 41 INDUSTRIAL ELECTRONICS – 3 Units
Class Hours: 18 lecture/108 lab total (when offered in the Distance Education format, hours will total 162)
Note: Industry requires a negative drug test result prior to employment
This course introduces electrical theory and electronic devices with a focus on industrial and advanced manufacturing uses. Physical wiring, schematics and relay logic, ladder logic and programmable logic controllers are also introduced. This class may be offered in a distance education format.

INDE 42 INDUSTRIAL CONTROL DEVICES – 3 Units
Class Hours: 18 lecture/108 lab total (when offered in the Distance Education format, hours will total 162)
Prerequisite: INDE 41 with a grade of C or higher
Note: Industry requires a negative drug test result prior to employment
This course introduces industrial control devices used in advanced manufacturing. Devices include motors, sensors, valves, and more. This course also covers the control of these devices by Programmable Logic Controls (PLC) including PLC code using ladder logic with RS 5000, PLC Circuit design, schematics, wiring, troubleshooting and maintenance. This course may be offered in a distance education format.

INDE 43 INDUSTRIAL MOTOR CONTROL – 3 Units
Class Hours: 18 lecture/108 lab total (when offered in the Distance Education format, hours will total 162)
Prerequisite: INDE 42 with a grade of C or higher
Note: Industry requires a negative drug test result prior to employment
This course will introduce Industrial Motor Control Centers (MMCs) with a focus on Advanced Manufacturing using Programmable Logic Controls (PLCs) with 3-Phase AC motors. Variable Frequency Drives (VFDs) using Pulse Width Modulation (PWM), Remote Input/Output, Human-Machine Interface (HMI), signaling, and loop control are also covered as well as schematics, wiring, PLC ladder logic code for these circuits using RS 5000 and system integration, maintenance and troubleshooting. This course may be offered in a distance education format.

INDE 44 INDUSTRIAL PROCESS CONTROL – 3 Units
Class Hours: 18 lecture/108 lab total
Prerequisite: INDE 43 with a grade of C or higher
Note: Industry requires a negative drug test result prior to employment
This course introduces industrial process control using Programmable Logic Controls (PLCs) with loop control. Multiple process systems, Human-Machine Interface (HMI) devices, whole system design, wiring, coding using RS 5000, building, maintenance and troubleshooting are also covered. This course may be offered in a distance education format.
INDE 94  INDUSTRIAL TECH WORKSITE LEARNING – 1-8 Units
Limitation on Enrollment: Financial aid students must maintain concurrent enrollment in 7 units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on-the-job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

INDE 101  INDUSTRIAL TRADE BASICS – 3 Units
Class Hours: 54 lecture total

The course provides an overview of basic skills required for individuals seeking entry-level employment in industrial occupations. The subjects covered include workplace safety and regulations, hand and power tools, basic rigging, introduction to blueprints, and an overview of soft skills related to effective communications and employability requirements necessary for sustainable employment.

INDE 102  INDUSTRIAL TRADE ESSENTIALS – 3 Units
Grading: Pass/No Pass Option
Class Hours: 36 lecture/54 lab total

The course provides an overview to fundamental industrial mechanical concepts, principles and equipment. The subjects covered include precision measurement, print reading, hydraulics/pneumatics, lubrication, bearings, flexible belt / mechanical drives and an introduction to basic electricity.

JAPANESE (JAPN)

Two years of high school foreign language with grades of "C" or better is equivalent to one semester of foreign language at Shasta College.

JAPN 1  ELEMENTARY JAPANESE – 5 Units
Grading: Pass/No Pass Option
Class Hours: 90 lecture total

This course is designed to give the student training in pronunciation, essentials of grammar, reading, writing, and speaking. The student is also introduced to the customs and culture of the Japanese people.

JAPN 2  ELEMENTARY JAPANESE – 5 Units
Grading: Pass/No Pass Option
Prerequisite: A grade of C or higher in JAPN 1 or Foreign Language Placement Level 2 or higher
Class Hours: 90 lecture total

This course is a continuation of JAPN 1. Greater emphasis is placed on writing and the writing system in JAPN 2. Students will learn 90 Kanji characters. Further Japanese culture, history and traditions are provided.

JAPN 3  INTERMEDIATE JAPANESE – 5 Units
Grading: Pass/No Pass Option
Prerequisite: JAPN 2 with a grade of C or higher or Foreign Language Placement Level 3 or higher
Class Hours: 90 lecture total

This course will give the student higher level language skills necessary to function in an adult environment. Great emphasis is placed on learning how to read and write a number of Kanji characters, and understanding Japan and its people through further Japanese culture, history, life and traditions.

JAPN 4  INTERMEDIATE JAPANESE – 5 Units
Grading: Pass/No Pass Option
Prerequisite: JAPN 3 with a grade of C or higher or Foreign Language Placement Level 4
Class Hours: 90 lecture total

This course builds on the higher level language skills acquired in JAPN 3 with greater emphasis on the linguistic diversity needed to function in an adult environment. Emphasis will be on learning to read and write an additional 150 Kanji characters. Stress is placed on Japanese culture.

JAPN 19  JAPANESE CONVERSATION 1 – 2 Units
Grading: Pass/No Pass Option
Prerequisite: JAPN 1 with a grade of C or higher or Foreign Language Placement Level 2
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 18 lecture/54 lab total

Intense practice in the spoken language. Course focuses on development of fluency by perfecting speech patterns, increasing vocabulary, and reinforcing pronunciation through simple sentence patterns, audio CDs, oral presentations, interactive communication in activities such as thematically centered conversations and conducting interviews. This course is for the practical use of Japanese. Cultural presentations will also be made through film, filmstrips, anime, music, TV programs, etc.

JAPN 20  JAPANESE CONVERSATION 2 – 2 Units
Grading: Pass/No Pass Option
Prerequisite: JAPN 19 with a grade of C or higher or Foreign Language Placement Level 3
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 18 lecture/54 lab total

Continuation of JAPN 19. Further intense practice in the spoken language. Course focuses on development of higher fluency by perfecting speech patterns, increasing vocabulary, and reinforcing pronunciation through additional sentence patterns, audio CDs, oral presentations, interactive communication in activities such as thematically centered conversations and conducting interviews. This course is for more advanced practical use of Japanese. Further cultural presentations will also be made through film, filmstrips, anime, music, TV programs, etc.

JOURNALISM (JOUR)

JOUR 21  INTRODUCTION TO MASS COMMUNICATIONS – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total

This course is designed principally as a survey of the mass media, including newspapers, magazines, radio, television, motion pictures, books, the Internet and new technologies. The course will include study of mass communication theories, the effect of new technologies on society and the history of mass communication media. Students will research and analyze current mass media phenomena and will produce a term paper reflecting their discoveries. This course may be offered in a distance education format.

JOUR 24  NEWSPAPER PRODUCTION – 2 Units
(form. JOUR 24A/24BD)
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, and ability to type 25 wpm
Class Hours: 18 lecture/54 lab total

Designed as a practicum in print production, primarily newspaper. Students will be required to work for a print publication, typically the college newspaper, the Lance. Instructional topics include advanced newsgathering (first semester), principles of editing (second semester), publication design (third semester), and management issues (fourth semester). The two-hour instructional component is a mixture of lectures, discussion and group work. The lab component will include staff meetings for the college print production. Assessment in the course is based on mastery of the instructional content and quality of work done for a print publication. Students are required to turn in weekly work activity reports and keep files of their published work during the semester. Students who work for a print publication other than the Shasta College Lance must sign up for 1 to 2 units of worksite learning to be taken concurrently with JOUR 24.
KINESIOLOGY (KINES)

KINES 1 FOUNDATIONS OF KINESIOLOGY – 3 Units
(formerly PE 10, HPE 8)
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
An introduction of the professional foundations of human movement to include career opportunities in areas of teaching, coaching, Allied Health and fitness; and an overview of the sub-disciplines in kinesiology. Course topics will include history, philosophy, concepts, programs, qualification, careers, issues, and future of the discipline. This course may be offered in a distance education format.

KINES 2 SPORTS EMERGENCY CARE – 3 Units
(formerly HLTH 10, PEAT 1, HPE 91)
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
Theory and practice in care and prevention of injuries. Course will cover basic injury prevention, recognition, emergency care and immediate treatment of injuries. Students will have the opportunity to become certified in standard first aid, CPR, and AED upon completion of requirements.

MATHEMATICS (MATH)

MATH 2 PRECALCULUS – 6 Units
Prerequisite: MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
Class Hours: 108 lecture total (when offered in the Distance Education format, hours will total 324)
Note: Students may take either MATH 2A and MATH 2B, or MATH 2 in order to meet transfer requirements. Successful completion of both MATH 2A and MATH 2B is the equivalent of MATH 2
A course to prepare the student for MATH 3A (Calculus) utilizing function graphing technology. The content includes linear, polynomial, rational, logarithmic, exponential and trigonometric functions, conic sections, matrices, parametric equations, and their applications. This course may be offered in a distance education format.

MATH 2A PRECALCULUS COLLEGE ALGEBRA – 4 Units
Prerequisite: MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher
Advisory: ENGL 190 with a grade of C or higher
Note: Students may take either MATH 2A and MATH 2B, or MATH 2 in order to meet transfer requirements. Successful completion of both MATH 2A and MATH 2B is the equivalent of MATH 2.
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
This college level course introduces functions and function algebra for majors in science, technology, engineering, and mathematics. The main focus is on linear, absolute value, polynomial, radical, rational, logarithmic and exponential functions. Students will learn algebraic techniques, modeling techniques and technology-based techniques for solving equations involving these functions and for investigating the graphs of these functions. This course may be offered in distance education format.

MATH 2B PRECALCULUS TRIGONOMETRY – 3 Units
Prerequisite: MATH 2A with a minimum grade of C or better or Math Placement Level 5 or higher
Note: Students may take either MATH 2A and MATH 2B, or MATH 2 in order to meet transfer requirements. Successful completion of both MATH 2A and MATH 2B is the equivalent of MATH 2.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A course on trigonometry utilizing function graphing technology. The content includes trigonometric functions of real numbers and angles, analytic trigonometry and applications, polar coordinates, parametric equations, and introduction to vectors. This course may be offered in a distance education format.

MATH 3A CALCULUS 3A – 4 Units
Prerequisite: MATH 2 with a grade of C or higher, or MATH 2B with a grade of C or higher, or Math Placement Level 5 or higher
Advisory: ENGL 190 with a grade of C or higher
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
First semester of a four-semester sequence covering differentiation of single variable functions, applications of the derivative, introduction to integration, and introduction to differential equations. This course may be offered in a distance education format.

MATH 3B CALCULUS 3B – 5 Units
Prerequisite: MATH 3A with a grade of C or higher or Math Placement Level 6 or higher
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 90 lecture total (when offered in the Distance Education format, hours will total 270)
Techniques of integration, including substitution, integration by parts and partial fractions. Improper integrals. Applications of integration to geometry and physics: finding areas, volumes and arc length, work, center of mass and fluid force. Sequences, series, absolute convergence and convergence tests, power series and Taylor and Maclaurin series. First-order ordinary differential equations and linear second-order differential equations. Parametric and polar curve differentiation and integration. This course may be offered in a distance education format.

MATH 4A CALCULUS 4A – 4 Units
Prerequisite: MATH 3B with a grade of C or higher, or Math Placement Level 7 or higher
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 72 lecture total
This course covers vectors in two and three dimensions, partial differentiation, multiple integrals, line integrals, divergence, gradient, curl, Stokes' and Green's Theorems.

MATH 4B DIFFERENTIAL EQUATIONS – 4 Units
Prerequisite: MATH 3B with a grade of C or higher, or Math Placement Level 7 or higher
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 72 lecture total
An introduction to ordinary differential equations, using qualitative, numerical, and analytic methods to investigate solutions. The course covers first order equations, systems of first order equations and linear second order equations. Topics include matrix methods, use of complex variables, Laplace transforms, and series solutions. Applications involving modeling with differential equations are included throughout the course.
MATH 6  LINEAR ALGEBRA – 3 Units
Prerequisite:  MATH 3A with a grade of C or higher, or Math Placement Level 6 or higher
Class Hours:  54 lecture total
A first course in linear algebra, this course provides a thorough treatment of systems of linear equations, including row operations, Gaussian elimination, and matrix algebra. Properties of vectors and the theory of vector spaces are covered. Topics include linear independence, inner products, orthogonality, eigenvectors, eigenspaces, and linear transformations. Applications are included throughout the course.

MATH 8  FINITE MATHEMATICS – 3 Units
Prerequisite:  MATH 102 with a grade of C or higher, or Math Placement Level 6 or higher
Class Hours:  54 lecture total
The course covers sets, matrices, and systems of equations and inequalities; linear programming; combinatorial techniques, introduction to probability; and mathematics of finance. The course is intended to provide (along with MATH 9) the mathematical skills needed for entry into upper division Business, Social, and Behavioral Science courses.

MATH 9  SURVEY OF CALCULUS – 4 Units
Prerequisite:  MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher
Advisory:  ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours:  72 lecture total
A course in analytical geometry, differential and integral calculus for students whose majors require a short course in calculus without the depth offered in MATH 3A.

MATH 10  PLANE TRIGONOMETRY – 3 Units
Prerequisite:  MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher
Advisory:  ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours:  54 lecture total
A basic course in trigonometry. Topics covered include angles, units of measurement, trigonometric functions, solutions of right and oblique triangles, identities, graphs, vectors, conic sections and polar coordinates. Algebraic and numerical methods are used in problem solving. Graphic calculators are utilized throughout the course.

MATH 11  PATTERNS OF MATHEMATICAL THOUGHT – 3 Units
Prerequisite:  MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher
Class Hours:  54 lecture total
A one-semester survey course emphasizing mathematical reasoning. Various applications of mathematics are covered with topics selected from: Geometry, Statistics, Management Science, Number Theory, Social Science, and Computer Science. The course is designed to give students an understanding of some of the vocabulary and methods of mathematics with a focus on ideas.

MATH 13  COLLEGE ALGEBRA FOR LIBERAL ARTS – 3 Units
(formerly MATH 1)
Prerequisite:  MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher
Class Hours:  54 lecture total (when offered in the Distance Education format, hours will total 162)
This is a college level course for majors in the Liberal Arts that introduces functions and function algebra. The main focus is on linear, polynomial, rational, radical, absolute value, logarithmic and exponential functions and equations. Students will learn algebraic techniques, modeling techniques and technology-based techniques for solving equations and inequalities involving these functions and for investigating the graphs of these functions. This course also covers systems of equations. This course may be offered in a distance education format.

MATH 14  INTRODUCTION TO STATISTICS - 4 Units
Prerequisite:  MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher
Advisory:  ENGL 190 with a grade of C or higher or English Placement Level 6 or higher
Class Hours:  72 lecture total (when offered in the Distance Education format, hours will total 216)
An introductory course in statistics designed to show the role of modern statistical methods in the process of decision making. Concepts are introduced by example rather than by rigorous mathematical theory. The following topics will be covered: measures of central tendency and dispersion, regression and correlation, probability, sampling distributions including the normal, t, and chi-square, statistical inference using confidence intervals and hypotheses testing. This course may be offered in a distance education format.

MATH 17  CALCULUS FOR SOCIAL AND LIFE SCIENCES – 4 Units
Prerequisite:  MATH 3A with a grade of C or higher, or Math Placement Level 6 or higher
Advisory:  ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours:  72 lecture total (when offered in the Distance Education format, hours will total 216)
Continued study of differential and integral calculus with applications to Social and Life Sciences. Includes integration methods, modeling with systems of differential equations, calculus of several variables, and partial derivatives. This course may be offered in a distance education format.

MATH 41A  CONCEPTS OF ELEMENTARY MATHEMATICS – 3 Units
Prerequisite:  MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher
Advisory:  ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours:  54 lecture total
Emphasis is on development of quantitative reasoning skills through in-depth investigations of mathematics topics, which include: patterns and sequences, inductive and deductive reasoning, problem solving, logic, set theory, set of real numbers and its subsets.

MATH 41B  CONCEPTS OF ELEMENTARY MATHEMATICS – 3 Units
Prerequisite:  MATH 102 with a grade of C or higher, or Math Placement Level 4 or higher
Advisory:  ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher, or ESL Placement Level 8 or higher
Note:  This course is valuable for students intending to become elementary school teachers.
Class Hours:  54 lecture total
Survey of the elements of mathematics usually taught in the elementary grades from an advanced standpoint. Emphasis is on geometry, probability and statistics.

MATH 100  TECHNICAL APPLICATIONS OF MATHEMATICS – 3 Units
Prerequisite:  MATH 240 or MATH 260 with a grade of C or higher, or Math Placement Level 2 or higher
Advisory:  ENGL 280 with a grade of C or higher, or English Placement Level 8 or higher
Class Hours:  54 lecture total
This course blends mathematical topics with practical technical applications. Emphasis is placed on the use of mathematics in solving problems involving arithmetic, algebra, and plane geometry. Practical applications are provided for specific technical occupations.
MATH 101 BASIC ALGEBRA – 3 Units  
Prerequisite: MATH 240 or MATH 260 with a grade of C or higher, or Math Placement Level 2 or higher  
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher  
Class Hours: 54 lecture total  
A first course in algebra designed to cover the basic concepts and operations of algebra including solving linear equations, exponent laws, arithmetic and factoring of polynomials, and graphing linear equations in two variables. Applications are encountered throughout the course.  

MATH 101L BASIC ALGEBRA LAB – 1 Unit  
Class Hours: 54 lab total  
This course provides students with hands-on activities that reinforce the concepts of the lecture course, MATH 101. The laboratory is designed to provide students with an opportunity to further investigate the solving of linear equations, exponent laws, arithmetic and factoring of polynomials, and graphing linear equations in two variables.  

MATH 102 INTERMEDIATE ALGEBRA – 5 Units  
Prerequisite: MATH 101 with a grade of C or higher or Math Placement Level 3 or higher  
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher  
Class Hours: 90 lecture total  
A second course in algebra at the developmental level. This course prepares the student to take a baccalaureate level general education mathematics course. Topics covered include equations and functions of the following types: quadratic, exponential, logarithmic, rational, and radical. The course also covers systems of linear equations and inequalities in two variables and quadratic inequalities in one variable. Applied problems are encountered throughout the course. This course may be offered in a distance education format.  

MATH 110 ESSENTIAL MATH (FOR AN ASSOCIATE DEGREE) – 3 Units  
Prerequisite: MATH 101, MATH 100 with a grade of C or higher, or Math Placement Level 3 or higher  
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher  
Class Hours: 54 lecture total  
This course is designed to provide a survey of mathematical topics that are appropriate for students pursuing an Associate Degree. Topics included are number sense, algebra, geometry, probability and statistics. This course may be offered in a distance education format.  

MATH 114 Pre-Statistics – 5 Units  
Prerequisite: MATH 240 or MATH 260 with a grade of C or higher or Math Placement Level 2 or higher.  
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher  
Class Hours: 90 lecture total  
This course prepares students who do not plan to major in math, science, computer science or business for transfer-level Statistics. It is an accelerated course that prepares students for transfer-level Statistics. Topics include ratios, rates, and proportional reasoning, arithmetic reasoning using fractions, decimals and percents, evaluating expressions, analyzing algebraic forms to understand statistical measures, functions, use of linear and exponential functions to model bivariate data, use of logarithms, logarithmic scales and semi-log plots, graphical and numerical descriptive statistics for quantitative and categorical data. This class may be offered in a distance education format.  

MATH 150 MATH STUDY SKILLS– 1 Unit (formerly GS 100)  
Grading: Pass/No Pass Option  
Note: Students do not necessarily need to be concurrently enrolled in a math class.  
Class Hours: 18 lecture total  
This course is designed to assist students in learning mathematics through the development of successful study skills and exam-taking methods. This course addresses learning styles, how to read a math book, completing homework assignments, how to take notes and exams, strategies for solving word problems, and techniques for overcoming math anxiety.  

MATH 210A PREPARING FOR ALGEBRA: COURSE 1A – .5 Unit  
Grading: Pass/No Pass Only  
Class Hours: 27 lecture total  
Addition, subtraction, multiplication and division of whole numbers.  

MATH 210B PREPARING FOR ALGEBRA: COURSE 1B – .5 Unit  
Grading: Pass/No Pass Only  
Prerequisite: MATH 210A with a P  
Class Hours: 27 lecture total  
Multiplication and division of fractions.  

MATH 210C PREPARING FOR ALGEBRA: COURSE 1C – .5 Unit  
Grading: Pass/No Pass Only  
Prerequisite: MATH 210B with a P  
Class Hours: 27 lecture total  
Addition and subtraction of fractions.  

MATH 210D PREPARING FOR ALGEBRA: COURSE 1D – .5 Unit  
Grading: Pass/No Pass Only  
Prerequisite: MATH 210C with a P  
Class Hours: 27 lecture total  
Addition, subtraction, multiplication and division of decimals.  

MATH 210E PREPARING FOR ALGEBRA: COURSE 1E – .5 Unit  
Grading: Pass/No Pass Only  
Prerequisite: MATH 210D with a P  
Class Hours: 27 lecture total  
This course covers operations on real numbers, including adding, subtracting, multiplying and dividing signed numbers.  

MATH 220 BASIC MATHEMATICS – 3 Units  
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 3 or higher  
Class Hours: 54 lecture total  
This course covers operations on real numbers, including adding, subtracting, multiplying and division of whole numbers, fractions, and decimals, with word problem applications. Subjects also taught include prime numbers, order of operations, ratios, and proportions.  

MATH 230A PREPARING FOR ALGEBRA: COURSE 2A – .5 Unit  
Grading: Pass/No Pass Only  
Prerequisite: MATH 220 with a grade of C or higher, or MATH 210E with a P  
Class Hours: 27 lecture total  
A basic introduction to simplifying algebraic expressions and solving equations.  

MATH 230B PREPARING FOR ALGEBRA: COURSE 2B – .5 Unit  
Grading: Pass/No Pass Only  
Prerequisite: MATH 230A with a P  
Class Hours: 27 lecture total  
Development and applications of ratios and proportions.  

MATH 230C PREPARING FOR ALGEBRA: COURSE 2C – .5 Unit  
Grading: Pass/No Pass Only  
Prerequisite: MATH 230B with a P  
Class Hours: 27 lecture total  
Development and application of percents.  

MATH 230D PREPARING FOR ALGEBRA: COURSE 2D – .5 Unit  
Grading: Pass/No Pass Only  
Prerequisite: MATH 230C with a P  
Class Hours: 27 lecture total  
Development and application of measurement.  

MATH 230E PREPARING FOR ALGEBRA: COURSE 2E – .5 Unit  
Grading: Pass/No Pass Only  
Prerequisite: MATH 230D with a P  
Class Hours: 27 lecture total  
This course is designed to assist students in learning mathematics through the development of successful study skills and exam-taking methods. This course addresses learning styles, how to read a math book, completing homework assignments, how to take notes and exams, strategies for solving word problems, and techniques for overcoming math anxiety.
Development and application of Geometry. This course is the final module in preparation for entry into MATH 100, MATH 101, and/or BUAD 106.

MATH 240  PRE-ALGEBRA – 3 Units
Prerequisite: MATH 230 with a grade of C or higher, or Math Placement Level 1 or higher
Advisory: ENGL 260 with a grade of C or higher or English Placement Level 3 or higher
Class Hours: 54 lecture total

This course provides a transition from arithmetic to algebra, covering a review of arithmetic operations; introducing the concepts of variables and signed numbers; the properties of addition, subtraction, multiplication and division containing variables; solution of equations and word problems. This course prepares the student for entry into MATH 101, 100, and/or BUAD 106.

MATH 260  BASIC MATH AND PRE-ALGEBRA – 5 Units
Advisory: ENGL 260 with a grade of C or higher or English Placement Level 3 or higher
Class Hours: 90 lecture total

This course covers topics from arithmetic through an introduction to algebra. Topics include basic operations on whole numbers, fractions, mixed numbers, decimal numbers, and signed numbers, along with presenting word problem applications for each. Additional topics include order of operations, ratio and proportion, solving percent problems, and an introduction to variables and beginning concepts of algebra. Algebraic concepts to be introduced include addition, subtraction, multiplication, and division of algebraic expressions and solving algebraic equations.

MICROBIOLOGY  (MICR)

MICR 1  MICROBIOLOGY – 5 Units
Prerequisite: CHEM 1A, 2A, or CHEM 2B with a grade of C or higher
Class Hours: 54 lecture/108 lab total

This course is an introduction to microorganisms, including bacteria, viruses, protozoans, fungi, and helminths. Topics covered include the general properties, characteristics, and classification of microbes, identification and control, genetics and biotechnology, physiology, metabolism, and ecology. Also discussed are immunity and the medical impact of microbial diseases.

MUSIC  (MUS)

All music theory and literature courses: ENGL 190 eligibility. All other music classes have specific musical performance ability requirements which are listed in each course description.

MUS 1  MUSIC FUNDAMENTALS – 3 Units
Grading: Pass/No Pass Option
Advisory: Concurrent enrollment in MUS 22
Class Hours: 54 lecture total

A course in music theory for the general student which is suitable for music majors as a prerequisite for further theory study. Class includes pitch notation, melody, rhythm, and meter, scales and modes, intervals, keys and key signatures, triads, chords, and some sight-singing. Course is designed for Elementary Education majors and Pre-Music Core Program. Some math, especially fractions, is necessary. A computerized skills tutorial is included in the text and is required. Piano skills are helpful in maximizing learning in this course. Development of skills in handwritten notation is expected. This course is commonly transferable to a baccalaureate program.

MUS 2  DIATONIC HARMONY AND MUSICIANSHP – 4 Units
Grading: Pass/No Pass Option
Prerequisite: MUS 1 with a grade of C or higher
Class Hours: 72 lecture

A study of scales and modes, key signatures and intervals, handwritten notation of pitch, and rhythms of simple and compound meters. Anatomy of harmony and melody. Four part harmonic writing, basic progressions, cadential formulas and integration of both with ear training and sight-singing. Analysis of music and composition will be concurrent with materials studied, which include phrase structure, figured bass symbols, and introductory dominant sevenths. Course is designed for the Music Core Program and is the first course of the four semester music theory sequence required to satisfy the Music Core Program and lower division music transfer. Course may be challenged and is transferable.

MUS 3  ADVANCED DIATONIC HARMONY & MUSICIANSHP – 4 Units
Grading: Pass/No Pass Option
Prerequisite: MUS 2 with a grade of C or higher
Class Hours: 72 lecture

This course is designed for the Music Core Program. It is the second course of the four-semester Music Theory Sequence required to satisfy the Music Core Program and lower division music transfer, may be challenged and is transferable. Course content includes idiomatic work from selected historical periods with a critical approach to stylistic analysis. All diatonic chords through the introduction of the V7, the first truly chromatic chord, will be studied. Introduction to two part counterpoint. The syntax of all diatonic chords and their hierarchy in the harmonic language will be learned, along with all inversions. This course applies and develops the rhythmic, melodic, and harmonic materials of Music 2 through ear training, sight singing, analysis, and dictation.

MUS 4  CHROMATIC HARMONY – 4 Units
Grading: Pass/No Pass Option
Prerequisite: MUS 3 with a grade of C or higher
Class Hours: 72 lecture

This course applies and develops the rhythmic, melodic, and harmonic materials of Music 3 through ear training, sight singing, analysis, and dictation. This is the third course of the four semester music theory sequence required to satisfy the Music Core Program and lower division music transfer, may be challenged and is transferable. It must be taken for a grade by music majors. Study chromatic alterations as used during the 18th and 19th Centuries, and the concept of Sonata-Allegro form in an overview of larger forms. The course work utilizes a lab period to build and apply keyboard skills, dictation, sight singing and rhythm skills.

MUS 5  TWENTIETH CENTURY HARMONY – 4 Units
Grading: Pass/No Pass Option
Prerequisite: MUS 4 with a grade of C or higher
Class Hours: 72 lecture

A study of the composition techniques and harmonic practices of the Twentieth Century and the development of critical judgments about the Century’s styles. Not only does this course incorporate the concepts from Music 3, but also in addition, through writing and analysis, it will include: post-Romantic techniques such as borrowed chords and modal mixture, chromatic mediants, Neapolitan and augmented-sixth chords, 9th, 11th and 13th chords, altered chords and dominants; and 20th Century techniques such as: Impressionism, tone rows, set theory, pandiatonicism and polychoralism, meter, rhythm, and minimalistic ideas. This course applies and develops the rhythmic, melodic, and harmonic materials of Music 4 through ear training, sight singing, analysis, and dictation. The course may culminate in the writing of a composition, probably theme and variations. This course utilizes a lab period to build and apply keyboard skills, sight singing dictation and rhythm skills. This is the fourth semester music theory sequence required to satisfy the Music Core Program and lower division music transfer.

MUS 10  MUSIC APPRECIATION – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total

A survey course that introduces the elements of music and music terminology, proceeding through principal composers and the chief features of six historical periods of music, from the Medieval Era to the present. Students learn about orchestral, acoustic and electric instruments, and new technologies including digital media. Students will attend concerts and listen to recordings. Recommended for AA Humanities elective, CSU General Ed Arts elective and Pre-Music Program.

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
MUS 11  HISTORY OF JAZZ AND ROCK – 3 Units  
Class Hours: 54 lecture total  
A survey course that covers the characteristics of jazz forms, including ragtime, Dixieland, blues, swing, progressive jazz and rock. Course gives the student the opportunity to become familiar with all of the various styles of jazz and provides an understanding of the social and technical influences that cause stylistic change. This course is designed to create an interest in music for the non-music major. Course is recommended for the Humanities elective.

MUS 14  WORLD MUSIC – 3 Units  
Class Hours: 54 lecture total  
World Music is a global exploration of musical traditions of various representative world musical cultures and musical techniques in a variety of cultural contexts not included in the broad genre of European based art music.

MUS 15  HISTORY OF ROCK – 3 Units  
Class Hours: 54 lecture total  
A survey course that covers the characteristics of Rock forms and important musicians. 1950s (Rockabilly, Little Richard, Chuck Berry, Elvis Presley, Doo-Wop, and various Rhythm & Blues musicians). 1960s (Folk-Rock, Surf-Rock, Motown, Twist, The Beatles, British Invasion, Electric Folk-Rock, Hard Rock, Psychedelic, and Jazz-Rock). 1970s (Heavy Metal, Art Rock, Funk, Glitter, Disco, and Funk). 1980s (New Wave, Hair Metal, Synthpop, and Rap. 1990s (Grunge, Alternative, and Rap/Hip Hop). Course gives the student the opportunity to become familiar with all the various styles of Rock and provides an understanding of the social and technical influences that cause stylistic change. This course is designed to create an interest in music for the non-music major.

MUS 16  HISTORY OF JAZZ – 3 Units  
Class Hours: 54 lecture total  
A survey course that covers the characteristics of Jazz forms, including Ragtime, Dixieland, Blues, Swing, Bop, Cool, Progressive Jazz, and the origins of new popular genres beginning in the 1950s. Course gives the student the opportunity to become familiar with all of the various styles of Jazz and provides an understanding of the social and technical influences that cause stylistic change. This course is designed to create an interest in music for the non-music major.

MUS 21A  BEGINNING GUITAR – 1 Unit (formerly MUS 21, 21A)  
Grading: Pass/No Pass Option  
Prerequisite: MUS 21A with a grade of C or higher  
Note: Students must provide their own instruments  
Class Hours: 9 lecture/27 lab  
A beginning course in the techniques of guitar, including basic chords, strums, finger-picking, and tuning. Guitar history and styles and music fundamentals are also presented.

MUS 21B  INTERMEDIATE GUITAR – 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: MUS 21A with a grade of C or higher  
Note: Students must provide their own instruments  
Class Hours: 9 lecture/27 lab  
A course designed to move the guitar player beyond basic chord use, to further implement notational skills, right hand skills, and to expand the beginner into the active use of E moveable chords, A moveable chords and the moveable scales that enhance the guitar player’s basic skills.

MUS 21C  ADVANCED INTERMEDIATE GUITAR – 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: MUS 21B with a grade of C or higher  
Note: Students must provide their own instruments  
Class Hours: 9 lecture/27 lab  
This course expands the intermediate guitar player beyond the E and A moveable chord forms and scales into the use of the C moveable chord and scale form and the G moveable chord and scale. The course will include more advanced right hand techniques and a review of notation, tablature, and song writing skills.

MUS 21D  ADVANCED GUITAR – 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: MUS 21C with a grade of C or higher  
Note: Students must provide their own instruments  
Class Hours: 9 lecture/27 lab  
This course expands the intermediate guitar player beyond the E and A moveable chord forms and scales into the use of the C moveable chord and scale form and the G moveable chord and scale. The course will include more advanced right hand techniques and a review of notation, tablature, and song writing skills.

MUS 22A  BEGINNING PIANO – 1 Unit (formerly MUS 22)  
Grading: Pass/No Pass Option  
Prerequisite: MUS 22A with a grade of C or higher  
Class Hours: 9 lecture/27 lab  
A fundamental course in keyboard techniques (simple piano music, accompaniments, chords, scales, and exercises) and music fundamentals (notation, melody, harmony and rhythm). Course is recommended for Music and Elementary Education majors.

MUS 22B  INTERMEDIATE PIANO – 1 Unit (formerly MUS 23, 22BD)  
Grading: Pass/No Pass Option  
Prerequisite: MUS 22B with a grade of C or higher  
Class Hours: 9 lecture/27 lab  
Students will formulate and play several Major scales, their chords and primary cadences; analyze the same in simple music; harmonize simple melodies and prepare pieces of a lengthier nature from 4 historic periods. The course will interpret subdivided and more complex rhythms and build confidence in class performance.

MUS 22C  ADVANCED INTERMEDIATE PIANO – 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: MUS 22C with a grade of C or higher  
Class Hours: 9 lecture/27 lab  
Students will formulate and play added Major scales along with their relative minors and cadences thereof; analyze primary and secondary chords; perform lengthier classical works, such as sonatinas, sonatas and minuets—along with music from all 4 periods. Students will develop the ability to interpret keys with more than 2 accidentals.

MUS 22D  ADVANCED PIANO – 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: MUS 22D with a grade of C or higher  
Class Hours: 9 lecture/27 lab  
Students will play in more sophisticated keys, with 3 or more accidentals. This course will be a continuation of Major and relative minor scales and cadences and will implement and analyze secondary dominants, 4-part Chorale style and considerably longer pieces from all periods. In-class performances required.

MUS 25A  BEGINNING STRINGS – 1 Unit (formerly MUS 25, 25AB)  
Grading: Pass/No Pass Option  
Prerequisite: MUS 25A with a grade of C or higher  
Note: Instruments provided if available  
Class Hours: 9 lecture/27 lab  
A beginning course in violin, viola, violoncello, and string bass organized to establish basic skills of tuning, pitch and tone production, both pizzicato and bowed, beginning in the first position until security in organized to establish basic skills of tuning, pitch and tone production, minor scales and cadences and will implement and analyze secondary dominants, 4-part Chorale style and considerably longer pieces from all periods. In-class performances required.

MUS 25B  INTERMEDIATE STRINGS – 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: MUS 25B with a grade of C or higher  
Note: Instruments provided if available  
Class Hours: 9 lecture/27 lab  
Study of off the string bowings, vibrato, special effects. The major goals of the course are to establish more advanced intermediate skills with sound pedagogy while playing representative string solo music, simple chamber music, duos, trios, quartets, and Baroque & Classic Orchestra music with correct bowings and proper style.
MUS 25C ADVANCED INTERMEDIATE STRINGS – 1 Unit  
(formerly MUS 25CD)  
Grading: Pass/No Pass Option  
Prerequisite: MUS 25B with a grade of C or higher  
Note: Instruments provided if available  
Class Hours: 9 lecture/27 lab  
An intermediate course in violin, viola, violoncello, and string bass utilizing more advanced positions and shifting on all instruments.  
Bowing techniques include on-the-string bowings, détaché, linked, legato and mixed bowings when appropriate.  

MUS 25D ADVANCED STRINGS – 1 Unit (formerly MUS 25CD)  
Grading: Pass/No Pass Option  
Prerequisite: MUS 25C with a grade of C or higher  
Note: Instruments provided if available  
Class Hours: 9 lecture/27 lab  
Advanced study of off the string bowings, vibrato, and special effects.  
The major goals of the course are to establish advanced skills with sound pedagogy while playing representative string solo music, advanced chamber music, duos, trios, quartets, and orchestra music of Romantic and Contemporary repertoire with correct bowings and proper style.  

MUS 29 BEGINNING VOICE – 1 Unit (formerly MUS 27A)  
Class Hours: 9 lecture/27 lab  
A beginning course in vocal technique, repertoire, stage deportment, and performance.  
Course utilizes a variety of vocal genres to teach tone quality, breath control, posture, diction and interpretation.  
Class performances required. Course recommended for Music, Theater Arts, and Elementary Education Majors.  

MUS 30 INTERMEDIATE VOICE – 1 Unit (formerly MUS 27B)  
Grading: Pass/No Pass Option  
Prerequisite: MUS 29 with a grade of C or higher  
Class Hours: 9 lecture/27 lab  
An intermediate course in vocal technique and performance.  
Course utilizes a variety of vocal literature to teach tone quality, breath control, posture, lyric diction and interpretation.  
Class performances required. Course recommended for Music Core Program, Theatre Arts majors and Elementary Education majors.  

MUS 31 CHAMBER CHOIR -1 Unit (formerly MUS 31AD)  
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music certificate and Music AA Degree.  
Non-audition courses that fulfill this requirement: MUS 40 Concert Choir, and MUS 41, Shasta College Women’s Ensemble.  
Note: Performances are required  
Class Hours: 54 lab total  
Organized for advanced singers.  
Admission to the class will be by audition to determine performance capability. This course provides performance by solos, duets, trios, quartets and full ensemble.  
Literature is selected from all periods of music with the emphasis on madrigals.  
Field trips and performances are required. This course cannot be challenged, must be taken for a grade, and is transferable.  
Students are expected to progress in skill level to be able to master more advanced material.  
Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.  

MUS 33 JAZZ ENSEMBLE – 1 Unit (formerly MUS 33AD)  
Note: Field trips and performances are required.  
Class Hours: 54 lab total  
This course offers experience in the study and performance of big band commercial and jazz arrangements.  
Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.  

MUS 35 VOCAL JAZZ ENSEMBLE – 1 Unit (formerly MUS 35AD)  
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music certificate and Music AA Degree.  
Non-audition courses that fulfill this requirement: MUS 40 Concert Choir, and MUS 41, Shasta College Women’s Ensemble.  
Note: Performances are required  
Class Hours: 54 lab total  
Organized for students interested in singing jazz and commercial music.  
Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.  

MUS 40 CONCERT CHOIR – 1 Unit (formerly MUS 40AD)  
Note: Field trips and performances may be required.  
Class Hours: 54 lab total  
A performing mixed choir (S.A.T.B.) that sings a variety of music, both historical and contemporary.  
This course teaches fundamentals of reading choral music, using examples from choral literature.  
Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.  

MUS 41 SHASTA COLLEGE WOMEN’S ENSEMBLE – 1 Unit  
Grading: Pass/No Pass Option  
Note: Performances are required (SSA)  
Class Hours: 54 lab total  
A performing choir that sings choral works for women’s chorus from all musical periods and styles.  
Works are selected from every era.  
Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.  

MUS 42 SHASTA COLLEGE CHORALE – 1 Unit  
(formerly MUS 42AD)  
Limitation on Enrollment: Admission to this class will be by audition to determine performance capability. This course is a restricted elective for the Music Certificate and Music AA Degree.  
Non-audition courses that fulfill this requirement: MUS 40 Concert Choir, and MUS 41, Shasta College Women’s Ensemble.  
Note: Performances are required.  
Class Hours: 54 lab total  
A performing mixed choir (S.A.T.B.) that sings a variety of music, both historical and contemporary, with an emphasis on large choral forms such as oratorios and cantatas, accompanied by instruments.  
Note: Field trips and performances are required.  
This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.  

MUS 43 SHASTA COLLEGE SYMPHONY ORCHESTRA – 1 Unit  
(formerly MUS 43AD)  
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music Certificate and Music AA Degree.  
Non-audition courses that fulfill this requirement: MUS 46, Shasta College Symphonic Band or MUS 25, Strings.  
Note: Field trips and performances are required  
Class Hours: 54 lab total  
A college symphony orchestra providing an opportunity for instrumentalists to perform standard and contemporary orchestral literature.  
Field trips and performances are required.  
All groups rehearse evenings only.  
Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.  

MUS 44 SHASTA COLLEGE YOUTH SYMPHONY – .5-1 Unit  
Grading: Pass/No Pass Option  
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music Certificate and Music AA Degree.  
Non-audition courses that fulfill this requirement: MUS 46 Shasta College Symphonic Band or MUS 25 Strings  
Note: Field trips and performances are required  
Class Hours: 27-54 lab total  
A college based symphony orchestra for the training of young musicians, providing an opportunity to perform standard and contemporary literature for younger musicians.  
Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.  

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
MUS 46  SHASTA COLLEGE SYMPHONIC BAND – 1 Unit  
(formerly MUS 46AD)

Note: Field trips and performances are required.  
Class Hours:  54 lab total

A course in performance techniques of both standard and contemporary band literature. Rehearses evenings only. Note: Field trips and performances are required. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 47  SHASTA COLLEGE JAZZ ENSEMBLE – 1 Unit  
(formerly MUS 47AD)

Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music Certificate and Music AA Degree. Non audition courses that fulfill this requirement: MUS 33 Jazz Ensemble.  
Note: Field trips and performances are required.  
Class Hours:  54 lab total

This class offers experience in the study and performance of big-band jazz arrangements. Rehearses evenings only. Admission to the class will be by formal audition to determine performance ability [Ed. Code Sect. 56106 (b) (3)]. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 48  APPLIED MUSIC – .5 Units  
Limitation on Enrollment: Student must be a declared Music major, enrolled in a Music Theory class (MUS 2-5), and enrolled in a large music ensemble (MUS 31-47).  
Class Hours:  27 lab total

This course consists of individualized instrumental or vocal study using appropriate techniques and repertoire. The emphasis is on the progressive development of skills needed for solo performance in preparation for transfer to a CSU/US music degree program. Achievement is evaluated through a juried performance.

MUS 50  VOCAL INSTITUTE – 1-3 Units  
Note: Field trips and performances are required.  
Class Hours:  9-27 lecture/27-81 lab total

The Vocal Institute is an intensive course of both vocal and dramatic instruction in an applied performance setting for students who are interested in dramatic vocal performance. Content includes repertoire instruction in art song, musical theater and opera. It is an applied activity course that includes lectures, assignments, rehearsals and studio tutorials. Students learn vocal technique, lyric diction, solo and ensemble performance, character development, stagecraft and movement, and score reading. Art songs and scenes are performed in original languages, including Italian, French, German and English. Skills are built through supervised application resulting in improved performance. Class includes staged performance of art song, opera and musical theater literature. Note: Course may be repeated three times for a total of four enrollments.

MUS 51  OPERA IN PERFORMANCE – 1-3 Units  
Note: Field trips and performances are required.  
Class Hours:  54-162 lab total

This course provides for skill development, both vocal and dramatic, at all levels, beginning through advanced, in an applied performance setting for students who are interested in classical dramatic vocal performance. It is an applied activity course in which skills are built through supervised application resulting in improved performance. Emphasis is on solo, small ensemble and chorus performance. Class culminates with fully- or partially-staged performances of opera literature. Note: Course may be repeated three times for a total of four enrollments.

MUS 61A  BEGINNING PERFORMANCE ANALYSIS – .5 Unit  
(formerly MUS 61, 61AD)

Grading: Pass/No Pass Option  
Note: Attendance at a musical event is required. It is recommended that students have a fine arts performance track, such as a solo instrument, voice proficiency, or drama.  
Class Hours:  27 lab

A course in the experience of listening, analyzing, and criticizing classical music performances in class and the community. Applied Music students, local musicians, and professional musicians perform and lecture. Required for Pre-Music and Music Core Program.

MUS 61B  INTERMEDIATE PERFORMANCE ANALYSIS – .5 Unit  
Advisory: MUS 61A with a grade of C or higher

Note: Attendance at a musical event is required. It is recommended that students have a fine arts performance track, such as a solo instrument, voice proficiency, or drama.  
Class Hours:  27 lab

An intermediate level course in the experience of listening, analyzing, and criticizing classical music performances in class and the community. Students must perform on an applied solo instrument, with a college-level short lecture on the material presented. Applied Music students, local musicians, and professional musicians perform and lecture. Required for Pre-Music and Music Core Program.

MUS 61C  ADVANCED INTERMEDIATE PERFORMANCE ANALYSIS – .5 Unit  
Advisory: MUS 61B with a grade of C or higher

Note: Attendance at a musical event is required. It is recommended that students have a fine arts performance track, such as a solo instrument, voice proficiency, or drama.  
Class Hours:  27 lab

An intermediate level course in the experience of listening, analyzing, and criticizing classical music performances in class and the community. Students must perform on an applied solo instrument using intermediate level literature appropriate for an upper-division audition. Applied Music students, local musicians, and professional musicians perform and lecture. Students are expected to perform at a level close to that of an upper division student on a solo or vocal instrument. Required for Pre-Music and Music Core Program.

MUS 61D  ADVANCED PERFORMANCE ANALYSIS – .5 Unit  
Advisory: MUS 61C with a grade of C or higher

Note: Attendance at a musical event is required. It is recommended that students have a fine arts performance track, such as a solo instrument, voice proficiency, or drama.  
Class Hours:  27 lab

An advanced course in the experience of listening, analyzing, and criticizing classical music performances in class and the community. Applied Music students, local musicians, and professional musicians perform and lecture. Students are expected to perform at a level close to that of an upper division student on a solo or vocal instrument. Required for Pre-Music and Music Core Program.

MUS 64  BEGINNING KEYBOARD SKILLS – 1 Unit

Grading: Pass/No Pass Option

Prerequisite: MUS 1 with a grade of C or higher

Class Hours:  54 lab total

A laboratory course to build and apply beginning keyboard skills utilizing the basic concepts of the lecture course, MUS 2.

MUS 65  INTERMEDIATE KEYBOARD SKILLS – 1 Unit

Grading: Pass/No Pass Option

Prerequisite: MUS 64 with a grade of C or higher

Class Hours:  54 lab total

A laboratory course to build and apply intermediate keyboard skills utilizing the basic concepts of the lecture course, MUS 3.

MUS 66  ADVANCED-INTERMEDIATE KEYBOARD SKILLS – 1 Unit

Grading: Pass/No Pass Option

Prerequisite: MUS 65 with a grade of C or higher

Class Hours:  54 lab total

A laboratory course to build and apply advanced-intermediate keyboard skills utilizing the basic concepts of the lecture course, MUS 4.
trips and performances are required. Students will develop important scientific skills such as conservation. Students will become familiar with current field research they work to understand neotropical ecosystems. Observation, identification, data collection, and data interpretation will be introduced in the classroom and expanded upon during a two-day overnight field trip.

### MUS 301 ORCHESTRA FOR SENIORS – 0 Units
**Note:** While this is an open enrollment class, an assessment will be conducted by the instructor at the start of the class to determine if the student has the required ability to participate in performances.

Class Hours: 9-36 lecture total

A course designed to offer opportunities for older adults to participate in ensemble music with the Symphony Orchestra.

### MUS 302 SYMPHONIC BAND FOR SENIORS – 0 Units
**Note:** While this is an open enrollment class, an assessment will be conducted by the instructor at the start of the class to determine if the student has the required ability to participate in performances.

Class Hours: 54 lab total

A course designed to offer opportunities for adults to participate in ensemble music with the Symphonic Band.

### MUS 303 MUSIC FOR SENIORS – 0 Units
**Note:** While this is an open enrollment class, an assessment will be conducted by the instructor at the start of the class to determine if the student has the required ability to participate in performances.

**Advisory:** Demonstrated proficiency in the performance medium.

Class Hours: 18-54 lab total

A course designed to offer opportunities for adults to participate in music performance.

### NATURAL HISTORY (NHIS)

### NHIS 5 NATURAL HISTORY OF THE NEOTROPICS – 4 Units
**Note:** Due to the focus of this course, class time at a neotropical site is required and students must make their own arrangements to attend class at this site.

Class Hours: 54 lecture/54 lab total

This course will focus on the evolution and interdependence of biotic communities and ecosystem components of the Neotropics, with an emphasis on rainforest and tropical reef systems. Major topics covered will include species diversity, species adaptation, energy flow and nutrient cycling, underlying geologic and climatic forces influencing the neotropical region, as well as human influence and biodiversity conservation. Students will become familiar with current field research techniques and will develop important scientific skills such as observation, identification, data collection, and data interpretation as they work to understand neotropical ecosystems.

### NHIS 15 NATURAL HISTORY OF CALIFORNIA – 3 Units
**Grading:** Pass/No Pass Option

**Note:** Required day field trips

Class Hours: 54 lecture total

Designed to give the student a unified view of the natural history of California with an emphasis on Northern California. The geology, weather, ecology, life zones, plant and animal species, and aquatic and mountain environments are emphasized.

### NHIS 65 NATURAL HISTORY OF PATRICK'S POINT – 1 Unit
(formerly NHIS 65AB)

**Grading:** Pass/No Pass Option

**Note:** Students must provide their own camping gear and food. The college supplies and requires bus transportation for no additional cost.

Class Hours: 9 lecture/27 lab total - includes one orientation meeting plus one weekend

A three day, two night field trip to Patrick's Point State Park to familiarize students with the organisms and ecological interactions occurring in the various plant communities and intertidal zones. One pre-trip introductory lecture will be held.

### NHIS 105 NATURAL HISTORY OF THE SOUTHERN CASCADES – 1 Unit
(formerly GEOL 105)

**Grading:** Pass/No Pass Option

**Note:** Required overnight field trip.

Class Hours: 9 lecture/27 lab total

This course is an introductory, short-term field class in which the development of land forms and occupation of niches associated with a volcanic site will be covered. Types of volcanoes, life zones, specimen identification (rock, plant, and animal), and reading topographic maps will be introduced in the classroom and expanded upon during a two-day overnight field trip.

### OFFICE ADMINISTRATION (OAS)

### OAS 10 EXCEL FOR WINDOWS – I – 1 Unit
(formerly CIS 10, MIS 73)

**Grading:** Pass/No Pass Option

**Note:** Internet and classroom students will require access to a computer with the same version of Microsoft Operating System and Office Suite being used in the course. Computer access is provided on campus at the Learning Resource Center and the Tehama Campus.

Class Hours: 13.5 lecture/13.5 lab total (when offered in the Distance Education format, hours will total 54)

This is an introductory course that introduces the concepts, principles, and uses of the EXCEL spreadsheet through multi-media lecture, demonstration, and discussion. Instruction will include use of the Windows environment; creating, editing, formatting, and printing a worksheet; charts/graphs development; and formulas/functions using relative and absolute cell reference. This course may be offered in a distance education format.

### OAS 11 EXCEL FOR WINDOWS – II – 1 Unit
(formerly CIS 11, MIS 74)

**Grading:** Pass/No Pass Option

**Advisory:** OAS 10 with a grade of C or higher.

**Note:** Internet and classroom students will require access to a computer with the same version of Microsoft Operating System and Office Suite being used in the course. Computer access is provided on campus at the Learning Resource Center and the Tehama Campus.

Class Hours: 13.5 lecture/13.5 lab total (when offered in the Distance Education format, hours will total 54)

Designed to expand and improve worksheet skills through multi-media lecture, demonstration, and discussion. Instruction will include managing workbook data, using tables, analyzing table data, automating worksheet tasks, enhancing charts, and using what-if analysis. This course may be offered in a distance education format.

### OAS 12 EXCEL FOR WINDOWS – III – 1 Unit
(formerly CIS 11, MIS 75)

**Grading:** Pass/No Pass Option

**Advisory:** OAS 11 with a grade of C or higher.

**Note:** Internet and classroom students will require access to a computer with the same version of Microsoft Operating System and Office Suite being used in the course. Computer access is provided on campus at the Learning Resource Center and the Tehama Campus.

Class Hours: 13.5 lecture/13.5 lab total (when offered in the Distance Education format, hours will total 54)

This is an introductory course that introduces the concepts, principles, and uses of the EXCEL spreadsheet through multi-media lecture, demonstration, and discussion. Instruction will include use of the Windows environment; creating, editing, formatting, and printing a worksheet; charts/graphs development; and formulas/functions using relative and absolute cell reference. This course may be offered in a distance education format.
OAS 30  CREATING AND MANAGING THE VIRTUAL OFFICE – 3 Units

Grading: Pass/No Pass Option  
Advisory: ENGL 280 with a grade of C or higher or English Placement Level 5 or higher  
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

There has been an increase in interest in using technology to work from home – telecommuting. Individuals may choose to work outside of their corporate/business office or may be entrepreneurs who wish to be self-employed. This course will explore issues that should be addressed when creating a virtual office. Topics will include managing your time, customizing your workplace, evaluating and buying technology, communicating with technology, and business ethics. This course may be offered in a distance education format.

OAS 51  INTRODUCTION TO KEYBOARDING AND WORD – 3 Units (formerly BUSI 51)

Grading: Pass/No Pass Option  
Note: Internet and classroom students will require access to a computer with the same version of Microsoft Operating System and Office Suite being used in the course. Computer access is provided on campus at the Learning Resources Center and the Tehama campus.  
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

An introductory course in keyboarding and Microsoft Word. Class includes learning to type alphabetic, numeric and symbol keys by touch; developing speed and accuracy; and formatting business documents including letters, memos, reports, tables and labels. Recommended for all students that want to learn typing and Microsoft Word. No prior knowledge of computers is required making this course an excellent place to start for beginning computer users. This course may be offered in a distance education format.

OAS 52  INTERMEDIATE KEYBOARDING AND WORD – 3 Units (formerly BUSI 52)

Grading: Pass/No Pass Option  
Prerequisite: OAS 51 with a grade of C or higher  
Note: Internet and classroom students will require access to a computer with the same version of Microsoft Operating System and Office Suite being used in the course. Computer access is provided on campus at the Learning Resources Center and the Tehama campus.  
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)

An intermediate course in keyboarding and Microsoft Word. This course continues the development of keyboarding speed and accuracy while emphasizing the formatting of various kinds of business correspondence, reports, tables, forms, and desktop publishing projects from rough drafts. This course may be offered in a distance education format.

OAS 53  ADVANCED KEYBOARDING AND WORD – 3 Units  
(formerly BUSI 53)

Grading: Pass/No Pass Option  
Prerequisite: OAS 52 with a grade of C or higher  
Note: Internet and classroom students will require access to a computer with the same version of Microsoft Operating System and Office Suite being used in the course. Computer access is provided on campus at the Learning Resources Center and the Tehama campus.  
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)

An advanced course in keyboarding and Microsoft Word. This is the capstone course allowing the student to meet any business document requirement. Offered in a distance education format. This course is designed to give additional practice in building speed and accuracy and to apply previously learned document formatting competencies to a variety of integrated office projects in international marketing, hospitality, travel, energy, electronics, insurance, government, law, and medicine. This course may be offered in a distance education format.
management; creating new documents using both the blank Word document screen or wizards and templates; selecting text to move/copy/delete/format or utilize the clipboard; creating and formatting tables, including calculations; spelling and thesaurus tools; font, paragraph and page formatting; customized tabs; indents; bullets and numbering; borders and shading; headers, footers, and page numbering; finding and replacing. This course may be offered in a distance education format.

OAS 92  WORD FOR WINDOWS - II – 1 Unit
Grading:  Pass/No Pass Option
Advisory:  OAS 91 or OAS 51 with a grade of C or higher. Ability to type 25 wpm
Note:  Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Learning Resources Center and the Tehama Campus. Students taking the Internet format of this course must have access to the same version of the Microsoft Operating System and Office Suite being used in the course.
Class Hours:  13.5 lecture/13.5 lab total (when offered in the Distance Education format, hours will total 54)
This course introduces word processing through using Microsoft WORD for Windows. Microsoft WORD will be designed to expand and improve basic word processing skills to a higher level of proficiency through multi-media lecture/demonstration/discussion. Instruction will include a review of basic concepts and commands, illustrating documents with graphics, creating a web site, merging word documents, working with styles and templates, developing multi-page documents; and integrating Word with other programs. This course may be offered in a distance education format.

OAS 93  WORD FOR WINDOWS - III – 1 Unit
Grading:  Pass/No Pass Option
Prerequisite:  OAS 92 with a grade of C or higher
Advisory:  Ability to type 25 wpm
Note:  Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Learning Resources Center and the Tehama Campus. Students taking the Internet format of this course must have access to the same version of the Microsoft Operating System and Office Suite being used in the course.
Class Hours:  13.5 lecture/13.5 lab total (when offered in the Distance Education format, hours will total 54)
Designed to expand and improve word processing skills to a more advanced level of proficiency through multi-media lecture/demonstration/discussion on an IBM compatible microcomputer. Instruction will include a review of word processing concepts and commands; exploring advanced graphics, building forms, working with charts and diagrams, collaborating with workgroups, using macros and customizing Word. This course may be offered in a distance education format.

OAS 94  POWERPOINT – 1 Unit
Grading:  Pass/No Pass Option
Note:  Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Learning Resources Center and the Tehama Campus. Students taking the Internet format of this course must have access to the same version of the Microsoft Operating System and Office Suite being used in the course.
Class Hours:  13.5 lecture/13.5 lab total (when offered in the Distance Education format, hours will total 54)
This is a hands-on course designed to familiarize students with Microsoft PowerPoint. Students will learn how to create effective slide show presentations with emphasis on customizing text, graphics and charts. Students will work with embedded and linked objects as well as hyperlinks and use PowerPoint’s many slide show features. This course may be offered in a distance education format.

OAS 110  MEDICAL TERMINOLOGY – 3 Units
(formerly HEOC 110, MEDA 151)
Class Hours:  54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides students with an understanding of the language of medicine through the study of basic word structures and anatomical, pathological, and operative terms used within the integumentary, musculoskeletal, nervous, cardiovascular, respiratory systems, blood and lymphatic systems, digestive system, digestive, endocrine, special senses, urinary, male and female reproductive, obstetrics, radiology, diagnostic imaging, oncology and pharmacology. This course may be offered in a distance education format.

OAS 112  MEDICAL CODING – 3 Units (formerly HEOC 112, MEDA 156, MEDA 156A)
Prerequisite:  OAS 110 with a grade of C or higher
Class Hours:  54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is basic introduction to coding for medical billing and reimbursement. It is designed to provide the learner with fundamentals needed to use the systems correctly and consistently. The student will learn the structure and format of medical coding books (e.g., ICD-9-CM or ICD-10-CM; CPT; HCPCS, Level II) and develop skills in assigning accurate codes. The student will use acceptable coding guidelines through practical application. This course may be offered in a distance education format.

OAS 113  ADVANCED MEDICAL CODING – 3 Units
Prerequisite:  OAS 112 with a grade of C or higher
Class Hours:  54 lecture total (when offered in the Distance Education format, hours will total 162)
This course has been designed to enable the learner to interpret health record documentation for code assignment. Students will apply established coding guidelines for each coding classification system included in the course (e.g. ICD-9-CM/ICD-10-CM; CPT; HCPCS, Level II). This course may be offered in a distance education format.

OAS 114  HEALTHCARE BILLING AND REIMBURSEMENT – 3 Units
Corequisite:  Students must be concurrently enrolled in, or have completed OAS 113 and OAS 150 with a grade of C or higher.
Class Hours:  54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will provide the linkage between specialized medical office administration practices such as computerized medical account management and medical coding. The course will enable students to understand the processing of healthcare claims as it relates to various insurance payer requirements beginning with abstracting information from medical chart documents and following procedural steps based on the nature of the patient status and payer. This course may be offered in a distance education format.

OAS 150  ELECTRONIC MEDICAL RECORDS – 3 Units
(formerly MEDA 150B)
Note:  Internet and classroom students will require access to a computer with the same version of Microsoft Operating System and Office Suite being used in the course. Computer access is provided on campus at the Learning Resource Center and the Tehama campus.
Class Hours:  54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is designed to prepare students for entry-level positions with electronic records in a medical office. Topics covered are computerized systems for appointment scheduling and follow-up: claim forms and coding; patient and insurance billing, and medical practice financial management. This course may be offered in a distance education format.

OAS 152  KEYBOARDING FOR SPEED AND ACCURACY – .5 Unit
(formerly OAS 268, OAS 268AD, BUSI 268AD)
Grading:  Pass/No Pass Option
Note:  Class may require outside time using a computer with internet access and appropriate software. Computer access is provided on campus at the Learning Resource Center and the Tehama campus. Students taking the Internet format of this course must have access to the same version of Microsoft Operating System and Office Suite being
This course may be offered in a distance education format. Designed for the beginning to advanced keyboarding student to improve typing speed and accuracy. Specific drills, proper typing technique, and ergonomics will be covered in the course. Development of keyboarding skills are attained through repetitive typing of specific drills designed to improve both accuracy and speed. This course may be offered in a distance education format.

OAS 158 OFFICE PROCEDURES FOR ADMINISTRATIVE ASSISTANTS – 3 Units (formerly BUSI 158)
Advisory: ENGL 280 with a grade of C or higher or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

A capstone course in medical and office technology. This is an essential class for students wishing to work in any medical or general office position. Content includes: understanding the medical practice, the unique issues of working in a medical office, interacting with patients, dealing with insurance and finances, medical terminology and ethics, an overview of the billing and reimbursement process, scheduling appointments, and obtaining employment, office ethics, greetings, telephone techniques, working with others, mailing and filing procedures, appointment/calendaring employment testing, and career planning. This course may be offered in a distance education format.

OAS 160 MEDICAL TRANSCRIPTION – 3 Units (formerly OAS 159/160, BUSI 159B)
Prerequisite: BUAD 166 and OAS 51 with a grade of C or higher
Corequisite: OAS 110 or previous completion of OAS 110 with a grade of C or higher
Note: Class may require outside time using a computer with Internet access and appropriate software. Computer access is provided on campus at the Learning Resource Center and the Tehama campus. Students taking the Internet format of this course must have access to the same version of Microsoft Operating System and Office Suite being used in the course.
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)

A course designed to help the student reinforce and expand knowledge of medical vocabulary and to acquire medical transcription skills through the typing of medical notes, reports, and diagnostic case histories. Further experience in transcribing diagnostic imaging, oncology, cardiology, hematology, general surgery, plastic surgery, dentistry, orthopedics, neurology, psychiatry, urology, obstetrics, pediatrics, otorhinolaryngology, ophthalmology, respiratory, gastroenterology, and pathology. This course may be offered in a distance education format.

OAS 166 RECORDS MANAGEMENT – 2 Units (formerly BUSI 163)
Class Hours: 27 lecture/27 lab total (when offered in the Distance Education format, hours will total 108)

A study of the basic principles, rules, and procedures of filing. It includes a study of alphabetic, numeric, subject, and geographic filing. Various types of filing equipment will be analyzed. This course may be offered in a distance education format.

OAS 171 PROOFREADING SKILLS – 2 Units (formerly BUSI 168)
Advisory: Ability to type 25 wpm.
Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)

The course covers the application of appropriate methods of proofreading documents common to the work place, and an overview of the essential skills needed to perform text-editing functions in business settings. High level proofreading skills are vital to the efficient operation and productivity of the information-processing office. Proofreading has become a “must” for quality control in the work place. This course may be offered in a distance education format.

OAS 250 KEYBOARDING AND WORD – ADAPTIVE – 3 Units (formerly OAS 250AD and BUSI 250AD)
Grading: Pass/No Pass Option
Note: Internet and classroom students will require access to a computer with the same version of Microsoft Operating System and Office Suite being used in the course. Computer access is provided on campus at the Learning Resource Center and the Tehama campus.
Class Hours: 36 lecture/54 lab total

A personal-use individualized course in keyboarding designed to meet the needs of students with physical and/or specific learning disabilities. Interested students must be interviewed by the instructor and DSPS and/or Learning Services Office to determine if the course is appropriate for the student’s abilities and interests and to make arrangements for support services. The course includes instruction in correct keyboarding techniques appropriate for the individual student. Instruction covers memos, letters, tables, reports, and business forms. Students work toward personal growth objectives. This course does not meet the requirement of OAS 51 Introduction to Keyboarding and Word for an Associate in Arts degree or certificate.

PHILOSOPHY (PHIL)

PHIL 6 INTRODUCTION TO PHILOSOPHY – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 1A with a grade of C or higher or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

A transfer humanities course introducing students to some of the major philosophical issues in the history of philosophy through the critical examination of primary texts. It will both explore what is special about the questions philosophers ask and consider the most famous answers philosophers have given to those questions. Areas covered include philosophy of mind, epistemology, metaphysics, moral philosophy, political philosophy, science, aesthetics, and philosophy of religion. The course may be offered in a distance education format.

PHIL 7 ETHICS: UNDERSTANDING RIGHT AND WRONG – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 1A with a grade of C or higher or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course critically examines both the concept of morality as well as a number of representative ethical theories, such as Kantianism, Utilitarianism, Contractarianism, Divine Command Theory and Virtue Ethics. It also introduces students to a range of moral and social problems such as abortion, euthanasia, capital punishment, cloning, warfare, gender and sexuality issues, political and economic issues, and the moral status of the natural world. This course may be offered in a distance education format.

PHIL 8 LOGIC – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 1A with a grade of C or higher or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

Logic is the science that evaluates arguments. This course introduces principles of reasoning with emphasis on deductive logic. It will provide students with extensive experience in identifying a range of correct and incorrect argument forms. The course may include a treatment of inductive reasoning and fallacies. This course may be offered in a distance education format.

PHIL 14 MODERN WESTERN PHILOSOPHY – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course focuses on Western Philosophy from the 16th to the 18th...
century, with emphasis on broad epistemological and metaphysical developments of empiricism and rationalism in philosophical thought. Descartes to Kant. It may include approximate precursors and successors. This course may be offered in a distance education format.

**PHYSICAL EDUCATION (PE)**

**HEALTH AND WELLNESS**

**PE 4  LIFETIME FITNESS – 3 Units**

*Grading: Pass/No Pass Option*  
*Class Hours: 45 lecture/27 lab total*

In keeping with the primary purpose of Wellness, this course is designed to provide insight relative to the values derived by enriching the quality of our lives. Further, it includes the mechanisms for identifying individual needs and providing the means for measurement and improvement of lifestyles to reach a higher level of well-being. This course provides a personalized approach to assess and prescribe the necessary programs to improve the components of physical fitness and wellness. In addition to the health related components of physical fitness (cardiovascular, muscular strength and endurance, muscular flexibility, body composition), topics covered include nutrition and weight control, cardiovascular risk reduction, stress management, drug and alcohol abuse, AIDS, and environmental health issues. This course further prepares enrollees in successfully passing certification testing conducted by National Council on Strength and Fitness.

**PHYSICAL EDUCATION/FITNESS & CONDITIONING**

**PE 11  FUNDAMENTAL CONDITIONING – 1 Unit**  
*(formerly HPE 1 AD)*

*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

This course is designed for students who wish to assess and improve physical fitness levels and encourage a healthy attitude toward overall physical conditioning and fitness. Students receive instruction concerning the theories and practical activities involved in obtaining and maintaining an appropriate level of physical fitness, and through this process the students gain the ability to develop strategies and knowledge to make informed decisions for healthy lifestyle habits.

**PE 12A  BEGINNING WEIGHT TRAINING AND FITNESS – 1 Unit**  
*(formerly PE 12, HPE 24A)*

*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

This course is an introduction to weight training and fitness. It will include the safety aspects of successful weight training and techniques associated with a well-rounded beginning weight training program. This class will focus on the introduction of basic core lifts primarily through the use of weight lifting machines and circuit training programs that target the major muscle groups and emphasize the connection between cardiovascular fitness and strength training.

**PE 12B  INTERMEDIATE WEIGHT TRAINING AND FITNESS – 1 Unit**

*Prerequisite: PE 12A with a grade of C or higher*  
*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

This course is for the intermediate level weight training and fitness student that has successfully passed PE 12A, Beginning Weight Training and Fitness. It will teach the intermediate level weight training and fitness student the safety issues and techniques involved in using free weight resistance training exercises. Emphasis will be on developing a workout program that includes the use of free weight (dumbbell and barbell), power lifting techniques, and Olympic lifts for total development of the various muscle groups. Through the use of cardiovascular exercises and resistance exercises the student will be able to develop a high level of whole body fitness.

**PE 12C  ADVANCED WEIGHT TRAINING AND FITNESS – 1 Unit**

*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

This course is an advanced weight lifting and fitness class where the student sets his/her own goals and develops a program to meet their goals. This class will focus on the student’s ability to generate, assess and apply an individual fitness program to meet individual fitness goals and encourage lifetime fitness.

**PE 15  AEROBIC DANCE – 1 Unit (formerly HPE 53AD)**

*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

A complete physical conditioning program designed to increase cardiovascular efficiency through choreographed dances.

**PE 16  AEROBIC EXERCISE – 1 Unit (formerly HPE 63AD)**

*Grading: Pass/No Pass Option*  
*Class Hours: 54 total activity*

A complete physical conditioning program designed to increase cardiovascular efficiency through aerobic type exercises.

**PE 17  YOGA – 1 Unit**

*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

Introduction to basic yoga postures. Students will study and practice the principles of yoga exercise through self-awareness, breathing, relaxation, visualization, and meditation. Students will also learn the origin and history of yoga as a form of healthful exercise. This course is designed to meet all levels of experience in yoga techniques.

**AQUATICS**

**PE 30A  BEGINNING SWIMMING – 1 Unit**  
*(formerly PE 30, HPE 40A)*

*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

This class provides instruction in aquatic skills necessary for survival, efficiency in swimming, and conditioning in the aquatic environment.

**PE 30B  INTERMEDIATE SWIMMING – 1 Unit**

*Prerequisite: PE 30A with a grade of C or higher*  
*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

This course is designed to help the intermediate swimmer improve cardiovascular endurance through swimming and to teach sound individual conditioning techniques. Instruction will emphasize freestyle and backstroke. Each student will progress toward becoming an endurance swimmer for enhanced fitness.

**PE 30C  ADVANCED SWIMMING – 1 Unit**

*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

This course is designed to develop training skills, knowledge, strategy, and appreciation of competitive swimming for the advanced swimmer. Students that are preparing for competitive team, club, or triathlon training are encouraged to enroll in this course.

**PE 31  AQUA AEROBICS – 1 Unit (formerly HPE 79AD)**

*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

Aqua aerobics is an activity/fitness class where the student will be exposed to basic aquatic aerobic exercises. Water is the perfect medium for providing natural resistance for toning, firming, and strengthening the whole body. Exercising in water provides the student an opportunity to gain higher levels of fitness while minimizing the harsh impact to the body and joints like land base exercises do. This class includes upright movement skills, and is not a swimming class.

**PE 32  WATER POLO – 1 Unit (formerly HPE 44AB)**

*Grading: Pass/No Pass Option*  
*Class Hours: 54 lab total*

This course is designed to acquaint students with the sport of water polo. Emphasis on rules, individual skills, team play, and game strategy.

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
PE 35  LIFEGUARD TRAINING – 2 Units (formerly HPE 43AB)
Grading: Pass/No Pass Option
Advisory: Red Cross Level VII swimming skills.
Class Hours: 27 lecture/27 lab total
A course designed to provide training and prepare student for certification in American Red Cross Lifeguard Training, Professional Rescuers CPR, and First Aid Basics. Students who are legally mandated to repeat this course can contact the Division for details on how to enroll.

PE 37  SPRINGBOARD DIVING – 1 Unit
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This course is designed to present diving skills and techniques for both the one (1) meter and three (3) meter spring diving board, and criteria used to judge or score a dive.

DANCE
For Dance courses, refer to DAN in the catalog

RACQUET SPORTS

PE 51A  BEGINNING TENNIS – 1 Unit (formerly PE 51, HPE 35AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
A course designed for the beginning tennis player. This course emphasizes the fundamentals, techniques and rules of the game of tennis.

PE 51B  INTERMEDIATE TENNIS – 1 Unit
Prerequisite: PE 51A with a grade of C or higher
Class Hours: 54 lab total
This tennis course is designed for the player who has achieved a degree of stroke accuracy and dependability. This course will emphasize power, spin and controlled depth of shots. Footwork and game plan strategies will be developed along with first serve offensive shots.

PE 51C  ADVANCED TENNIS – 1 Unit
Prerequisite: PE 51B with a grade of C or higher
Class Hours: 54 lab total
This course will help prepare the student for competitive tennis play. The course will take students with an intermediate level skill development in all phases of the game of tennis and work to improve the power and consistency with which these skills are used. In addition to improved use of tennis skills the course will also focus on successful strategies of both singles and doubles play.

INDIVIDUAL SPORTS AND TEAM SPORTS

PE 60  SELF-DEFENSE – 1 Unit (formerly HPE 2AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This course is designed to teach students techniques in self-defense. The student will acquire fundamental skills in stances, punches, blocks, kicks, and escape maneuvers.

PE 62  GOLF – 1 Unit (formerly HPE 32AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This course is designed to teach the fundamental skills and knowledge necessary to participate in the game of golf.

PE 69  FOOTBALL – 1 Unit (formerly HPE 3AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This course is designed to teach the fundamental skills and knowledge necessary to participate in the game of football with a strong emphasis on team play.

PE 70A  BEGINNING VOLLEYBALL – 1 Unit (formerly PE 70, HPE 6AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
An introduction to the game of volleyball with beginning skills and an understanding and appreciation for the game of volleyball. Demonstration, drills and practice will provide the student with the opportunity to develop basic skills. Rules, basic strategy, and team play will enhance the student’s knowledge to continue this activity at a higher level.

PE 70B  INTERMEDIATE VOLLEYBALL – 1 Unit
Prerequisite: PE 70A with a grade of C or higher
Class Hours: 54 lab total
Designed to improve player skills, techniques and knowledge at an intermediate level for the game of volleyball. Demonstration and drills/practice will provide the student with the opportunity for improving skill level. Intermediate skills, such as quick offense/attack will be demonstrated and rehearsed. Students will have the opportunity to evaluate and apply knowledge of “out-of-system” play.

PE 70C  ADVANCED VOLLEYBALL – 1 Unit
Prerequisite: PE 70B with a grade of C or higher
Class Hours: 54 lab total
This course is designed to continue furthering a student’s knowledge of the rules and strategies of volleyball as well as practicing the ability to perform volleyball skills. Higher level skills and strategies corresponding to the course objectives will be taught and practiced during this course. Demonstration, drills, practice, team play, and video analysis will provide the student with opportunities to improve their personal, as well as their team, skills. Advanced skills, such as slide hitting, multiple attack offense, and jump serving, will be demonstrated and rehearsed. Students will learn to evaluate and apply various offensive and defensive systems.

PE 71  SOFTBALL – 1 Unit (formerly HPE 5AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This course is designed to teach the fundamental skills and knowledge necessary to participate in the game of softball with a strong emphasis on team play.

PE 72  BASEBALL – 1 Unit (formerly HPE 5AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This course is designed to teach the fundamental skills and knowledge necessary to participate in the game of baseball with a strong emphasis on team play.

PE 73  TRACK & FIELD TECHNIQUES – 1 Unit (formerly HPE 12AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This course is designed to teach the fundamental skills and knowledge necessary for track and field.

PE 74  SOCCER – 1 Unit (formerly HPE 41AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
This course is designed to teach the fundamental skills and knowledge necessary for soccer.

PE 75  BASKETBALL – 1 Unit (formerly HPE 4AD)
Grading: Pass/No Pass Option
Class Hours: 54 lab total
Designed to develop basic skills, understanding and appreciation for the game of basketball. The use of lecture, demonstration and drills will provide the student with the opportunity for skill development. Rules, strategy, and team play will enhance the student’s knowledge of the game of basketball.
PHYSICAL EDUCATION – ATHLETICS (PEAT)

PEAT 5 INTERCOLLEGIATE FOOTBALL – 3 Units
(formerly HPE 14AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability.
This course is designed for the intercollegiate football athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 hours total
Football instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 6 THEORY OF FOOTBALL – 1 Unit (formerly HPE 9AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate football athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory, and strategies of intercollegiate football. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 7 INTERCOLLEGIATE VOLLEYBALL – 3 Units
(formerly HPE 61AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability.
This course is designed for the intercollegiate volleyball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 hours total
Volleyball instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 8 THEORY OF VOLLEYBALL – 1 Unit
(formerly HPE 52AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate volleyball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory, and strategies of intercollegiate volleyball. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 9 INTERCOLLEGIATE CROSS COUNTRY – 3 Units
(formerly HPE 29AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability.
This course is designed for the intercollegiate cross-country athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 hours total
Cross country instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 10 THEORY OF CROSS COUNTRY – 1 Unit
(formerly HPE 30AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate cross country athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory and strategies of cross country. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 11 INTERCOLLEGIATE BASKETBALL – 3 Units
(formerly HPE 15AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability.
This course is designed for the intercollegiate basketball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 lab hours total
Basketball instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 12 THEORY OF BASKETBALL – 1 Unit
(formerly HPE 13AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate basketball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory, and strategies of intercollegiate basketball. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 13 INTERCOLLEGIATE SOFTBALL – 3 Units
(formerly HPE 62AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability.
This course is designed for the intercollegiate softball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 hours total
Softball instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 14 THEORY OF SOFTBALL – 1 Unit (formerly HPE 42AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate softball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory, and strategies of intercollegiate softball. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 15 INTERCOLLEGIATE BASEBALL – 3 Units
(formerly HPE 16AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability.
This course is designed for the intercollegiate baseball athlete.
Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 hours total

Baseball instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 16 THEORY OF BASEBALL – 1 Unit (formerly HPE 10AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate baseball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory, and strategies of intercollegiate baseball. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 17 INTERCOLLEGIATE TRACK AND FIELD – 3 Units
(formerly HPE 18AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability. This course is designed for the intercollegiate track and field athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 hours total
Track and field instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 18 THEORY OF TRACK AND FIELD – 1 Unit
(formerly HPE 28AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate track and field athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory and strategies of intercollegiate track and field. Note: This course may be repeated once for a total of two enrollments. As the athlete’s skills and proficiencies are enhanced, the theoretical and strategic aspects become more complex and require additional instruction.

PEAT 19 INTERCOLLEGIATE TENNIS – 3 Units
(formerly HPE 17AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability. This course is designed for the intercollegiate tennis athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 hours total
Tennis instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 20 THEORY OF TENNIS – 1 Unit (formerly HPE 68AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate tennis athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory, and strategies of intercollegiate tennis. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 23 INTERCOLLEGIATE SOCCER – 3 Units
(formerly HPE 71AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability. This course is designed for the intercollegiate soccer athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 hours total
Soccer instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 24 THEORY OF SOCCER – 1 Unit (formerly HPE 70AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate soccer athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory, and strategies of intercollegiate soccer. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 25 INTERCOLLEGIATE SWIMMING AND DIVING – 3 Units
(formerly HPE 82AB)
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability. This course is designed for the intercollegiate swimming and diving athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 hours total
Swimming and diving instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 26 THEORY OF SWIMMING AND DIVING – 1 Unit
(formerly HPE 83AB)
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate swimming and diving athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 activity total
A course designed to teach the rules, theory, and strategies of intercollegiate swimming and diving. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 29 INTERCOLLEGIATE WRESTLING – 3 Units
Grading: Pass/No Pass Option
Note: Tryouts may be required to determine performance capability. This course is designed for the intercollegiate wrestler. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 162-175 lab total
Wrestling instruction, practice and competition at the intercollegiate level. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

PEAT 30 THEORY OF WRESTLING – 1 Unit
Grading: Pass/No Pass Option
Note: This course is designed for the intercollegiate wrestler. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
Class Hours: 9 lecture/27 lab total
A course designed to teach the rules, theory, and strategies of intercollegiate wrestling. This course is repeatable in accordance with
Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

**PEAT 41 OFF-SEASON FOOTBALL TRAINING – 1-3 Units**
- **Grading:** Pass/No Pass Option
- **Note:** This course is designed for the intercollegiate football athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
- **Class Hours:** 54-162 lab total

This is an intercollegiate class designed for the development of the intercollegiate football player during the off-season of competition. Through the use of specialized strength/conditioning programs, football specific drills and techniques the student will be provided the opportunity to increase their strength, endurance and football abilities/skills to prepare them for the intercollegiate football season. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

**PEAT 42 OFF-SEASON SOCCER TRAINING – 1-3 Units**
- **Grading:** Pass/No Pass Option
- **Note:** This course is designed for the intercollegiate soccer athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
- **Class Hours:** 54-162 lab total

This is an intercollegiate class designed for the development of the soccer athlete during the off-season of competition. The course will involve strength and conditioning programs as well as specific skills and techniques for the sport of soccer that will help prepare the athlete for the next intercollegiate sport season. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

**PEAT 43 OFF-SEASON VOLLEYBALL TRAINING – 1-3 Units**
- **Grading:** Pass/No Pass Option
- **Note:** This course is designed for the intercollegiate volleyball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
- **Class Hours:** 54-162 lab total

This is an intercollegiate class designed for the development of the volleyball athlete during the off-season of competition. The course will involve strength and conditioning programs as well as specific skills and techniques for the sport of volleyball that will help prepare the athlete for the next intercollegiate sport season. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

**PEAT 44 OFF-SEASON WRESTLING TRAINING – 1-3 Units**
- **Grading:** Pass/No Pass Option
- **Note:** This course is designed for the intercollegiate wrestler. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
- **Class Hours:** 54-162 lab total

This is an intercollegiate class designed for the development of the wrestler during the off-season of competition. The course will involve strength and conditioning programs as well as specific skills and techniques for the sport of wrestling that will help prepare the athlete for the next intercollegiate sport season. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

**PEAT 45 OFF-SEASON BASKETBALL TRAINING – 1-3 Units**
- **Grading:** Pass/No Pass Option
- **Note:** This course is designed for the intercollegiate basketball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
- **Class Hours:** 54-162 lab total

This is an intercollegiate class designed for the development of the basketball athlete during the off-season of competition. The course will involve strength and conditioning programs as well as specific skills and techniques for the sport of basketball that will help prepare the athlete for the next intercollegiate sport season. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

**PEAT 46 OFF-SEASON BASEBALL TRAINING – 1-3 Units**
- **Grading:** Pass/No Pass Option
- **Note:** This course is designed for the intercollegiate baseball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
- **Class Hours:** 54-162 lab total

This is an intercollegiate class designed for the development of the baseball athlete during the off-season of competition. The course will involve strength and conditioning programs as well as specific skills and techniques for the sport of baseball that will help prepare the athlete for the next intercollegiate sport season. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

**PEAT 47 OFF-SEASON SOFTBALL TRAINING – 1-3 Units**
- **Grading:** Pass/No Pass Option
- **Note:** This course is designed for the intercollegiate softball athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
- **Class Hours:** 54-162 lab total

This is an intercollegiate class designed for the development of the softball athlete during the off-season of competition. The course will involve strength and conditioning programs as well as specific skills and techniques for the sport of softball that will help prepare the athlete for the next intercollegiate sport season. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

**PEAT 48 OFF-SEASON SWIMMING AND DIVING TRAINING – 1-3 Units**
- **Grading:** Pass/No Pass Option
- **Note:** This course is designed for the intercollegiate swimmer and diver. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
- **Class Hours:** 54-162 lab total

This is an intercollegiate class designed for the development of the swimming and diving athlete during the off-season of competition. The course will involve strength and conditioning programs as well as specific skills and techniques for the sport of swimming and diving that will help prepare the athlete for the next intercollegiate sport season. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.

**PEAT 49 OFF-SEASON TENNIS TRAINING – 1-3 Units**
- **Grading:** Pass/No Pass Option
- **Note:** This course is designed for the intercollegiate tennis athlete. Although this class is designed for the intercollegiate athlete, it is open to all individuals.
- **Class Hours:** 54-162 lab total

This is an intercollegiate class designed for the development of the tennis athlete during the off-season of competition. The course will involve strength and conditioning programs as well as specific skills and techniques for the sport of tennis that will help prepare the athlete for the next intercollegiate sport season. This course is repeatable in accordance with Title 5 regulations. The California Community College Athletic Association (CCCAA) regulations also allow for repeated enrollment based on a student athlete’s eligibility for the particular sport.
appropriate for students who have taken college level physics or
of their general education requirement in science. This course is not
enhanced by supervised repetition and practice. A maximum of 8 units
through repeating this course since course content varies and skills are
actual on the job performance. A student may earn up to 16 units
stresses good work habits and meeting of competencies through
ensure that the work experience is of educational value. The course
approved job site that is acquired by the student and related to the
This course is a continuation of PHYS 2A, covering mechanical waves
Laws, gravity, energy and momentum, equilibrium of rigid bodies, heat,
level 4 or higher
Prerequisite: MATH 102 with a grade of C or higher or Math Placement
Level 4 or higher
Lecture-discussion, demonstration and lab activities cover selected
theories of physics and chemistry, emphasizing the conceptual basis of
integration. The course will be presented in a lecture/discussion
selected organ systems with an emphasis on their control and
PHYS 2A  GENERAL COLLEGE PHYSICS – 4 Units
Grading: Pass/No Pass Option
Prerequisite: MATH 102 with a grade of C or higher or Math Placement
Level 4 or higher
Class Hours: 54 lecture/54 lab total
This course provides an introduction to the principles and applications
of mechanics, using the mathematical tools of algebra and right
triangle trigonometry. Topics include vectors, kinematics, Newton’s
laws, gravity, energy and momentum, equilibrium of rigid bodies, heat,
fluids and simple harmonic motion.

PHYS 2B  GENERAL COLLEGE PHYSICS – 4 Units
Grading: Pass/No Pass Option
Prerequisite: PHYS 2A with a grade of C or higher
Class Hours: 54 lecture/54 lab total
This course is a continuation of PHYS 2A, covering mechanical waves
(including sound), electricity, magnetism, geometric optics, interference
and diffraction and elementary modern physics.

PHYS 4A  PHYSICS (MECHANICS) – 4 Units
Prerequisite: MATH 3A with a grade of C or higher, or Math Placement
Level 6 or higher
Corequisite: MATH 3B or previous completion of MATH 3B with a
grade of C or higher
Class Hours: 54 lecture/54 lab total
The fundamental principles of mechanics are treated within the
mathematical framework of elementary differential and integral
calculus. Vectors, Newton’s Laws, work, energy, gravitation, linear and
angular momentum, rotational dynamics and motion studies are discussed.

PHYS 4B  PHYSICS (ELECTRICITY AND MAGNETISM) – 4 Units
Prerequisite: MATH 3B with a grade of C or higher or Math Placement
Level 7, and PHYS 4A with a grade of C or higher
Corequisite: MATH 4A, or previous completion of MATH 4A with a
grade of C or higher.
Class Hours: 54 lecture/54 lab total
The fundamental principles of electricity and magnetism are treated
using vector integral calculus. Topics include Coulombs Law, electric
fields, potentials, Gauss’ Law, Ohm’s Law, D-C circuits, Magnetism,
Biot-Savart Law, Amperes Law, Capacitance, inductance and RC
circuits.

PHYS 4C  PHYSICS (HEAT, WAVES, OPTICS, AND MODERN
PHYSICS) – 4 Units
Prerequisite: PHYS 4B with a grade of C or higher, and MATH 4A with
a grade of C or higher or Math Placement Level 7
Corequisite: MATH 4B or previous completion of MATH 4B with a
grade of C or higher
Class Hours: 54 lecture/54 lab total
The third in a three-course sequence, this course covers heat and
thermodynamics, general properties of waves, electromagnetic waves,
reflection and refraction, interference and diffraction, and selected
topics in modern physics.

PHYSICAL SCIENCE (PHSC)
(see also Earth Science – ESCI)

PHSC 1  PHYSICAL SCIENCE SURVEY – 4 Units
Grading: Pass/No Pass Option
Advisory: MATH 101 with a grade of C or higher, or Math Placement
Level 3 or higher
Class Hours: 54 lecture/54 lab total
Lecture-discussion, demonstration and lab activities cover selected
theories of physics and chemistry, emphasizing the conceptual basis of
these theories. The course is designed for non-science majors as part of
their general education requirement in science. This course is not
appropriate for students who have taken college level physics or
chemistry.

PHYSICS (PHYS)

PHYS 1  PHYSIOLOGY– 5 Units (formerly PHY 1/PHY 1L)
Grading: Pass/No Pass Option
Class Hours: 72 lecture/54 lab total
A study of cellular, tissues, and organ function in the human body. A
college level course surveying the elements of human physiology in
selected organ systems with an emphasis on their control and
integration. The course will be presented in a lecture/discussion
format with appropriate audio visual aids to emphasize selected
concepts. Experiments are performed in the laboratory to illustrate
functional characteristics of cells, membranes, and organ systems
discussed in lecture and to provide direct experience with lab
principles, recording systems, and methods of data analysis. Some
previous knowledge of anatomy and chemistry is helpful, but not
required for success in the course. A prerequisite for A.D.N. and
Dental Hygiene programs.

POLS 1  INTRODUCTION TO POLITICAL SCIENCE – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 1A with a grade of C or higher, or English Placement
Level 7
Class Hours: 54 lecture total (when offered in the Distance Education
format, hours will total 162)
The central emphasis of this course is upon the terms and concepts
used in the field of political science. Discussion centers upon the
nature of political science, the origin and nature of the State, patterns
and functions of government, the nature of political ideologies, the
nature of the U.S. Constitution and the basic principles of a
constitution. It is recommended that students majoring in political
science or other social sciences take this course. This course may be
offered in a distance education format.
POLS 2  INTRODUCTION TO AMERICAN GOVERNMENT – 3 Units
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introduction to United States and California government and politics, including their constitutions, political institutions and processes, and political actors. Examination of political behavior, political issues, and public policy. This course satisfies the CSU requirement in U.S. Constitution and California State and local government (US-2 and US-3). This course may be offered in a distance education format.

POLS 20  POLITICS OF THE DEVELOPING WORLD – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 1A with a grade of C or higher, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course focuses on the political dynamics of selected developing nations. Major emphasis will be on problems of poverty, colonialism, comparative political structures and behavior, imperialism and international relations. Tensions in political culture between traditional and non-traditional values in contemporary developing societies will also be examined. This course may be offered in a distance education format.

POLS 25  GLOBAL POLITICS – 3 Units
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher, and POLS 2 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the political, social, and economic methods and processes by which nations of the world conduct relations with each other and within a global system. Ideology, nationalism, diplomacy, warfare, and the role of international organizations will be addressed. Major events of the last two centuries and present day issues will be evaluated in the context of a global system of international relations. This course may be offered in a distance education format.

PSYCHOLOGY (PSYC)

PSYC 1A  GENERAL PSYCHOLOGY – 3 Units
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides an introduction to psychology as a science and as an applied field. The course provides an integration of physiological, cognitive, social-behavioral, psychodynamic, humanistic, cultural, and evolutionary perspectives. Topics include research methods, the nervous system, perception, learning, thinking, memory, human development, social behavior, emotions, motivation, personality, abnormal behavior, and psychotherapy. This course may be offered in a distance education format.

PSYC 5  HUMAN SEXUALITY – 3 Units (formerly PHY 5)
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An informative course in human sexuality, including human development from conception to adulthood. The anatomy and physiology of sex as well as behavioral and social aspects of human sexuality, and myths and laws governing sexual practices will be covered. This course may be offered in a distance education format.

PSYC 14  PSYCHOLOGY OF PERSONAL AND SOCIAL ADJUSTMENT – 3 Units
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides an overview of psychology as applied to modern life. It focuses on using psychological perspectives and concepts toward understanding one’s self and development, relating to others, and coping with everyday challenges. Topics include personality, stress, health, emotions, interpersonal relations, gender, sexuality, mental illness, and psychotherapy. This course may be offered in a distance education format.

PSYC 15  SOCIAL PSYCHOLOGY – 3 Units
Grading: Pass/No Pass Option
Advisory: PSYC 1A and/or SOC 1 with a grade of C or higher; and ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is a study of human interaction. The focus is on the individual within a social context. Topics such as attitude formation; conformity; obedience to authority; liking and loving; gender, age, and cultural diversity; prejudice, discrimination, and stereotyping; pro-social behavior and altruism; aggression; power and leadership; groupthink and deindividuation; conflict resolution and peacemaking are explored. In addition, the research methods and theories used by social psychologists are discussed. This course may be offered in a distance education format.

PSYC 16  HEALTH PSYCHOLOGY – 3 Units
Grading: Pass/No Pass Option
Advisory: PSYC 1A with a grade of C or higher; and ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the scientific and professional contributions of psychology to the areas of health and wellness including the promotion of and maintenance of health; the prevention and treatment of illness; how psychological, social, and biological factors influence one’s overall state of health; understanding the roles of patients and health care providers; and the improvement of health care systems and health policy formation. Individual characteristics such as gender, culture, lifestyle, personality, and relationships and their effects on health are explored. Students pursuing psychology, health care, and/or human services as their profession will find this course beneficial. This course may be offered in a distance education format.

PSYC 17  ABNORMAL PSYCHOLOGY – 3 Units
Grading: Pass/No Pass Option
Advisory: PSYC 1A with a grade of C or higher; and ENGL 1A with a grade of C or higher, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides an overview of psychological disorders, their characteristics, etiology, and treatment. The course discusses the many specific types of mental illness along with fundamental issues such as historical and modern perspectives on mental illness, diagnosis and assessment, research methods, intervention and therapies, and legal and ethical issues. This course may be offered in a distance education format.

PSYC 20  CROSS-CULTURAL PSYCHOLOGY – 3 Units
Grading: Pass/No Pass Option
Advisory: PSYC 1A with a grade of C or higher; and ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introduction to cultural influences on human behavior, emotions and patterns of thinking, including theories, research and findings. Topics span a range of issues such as life-span development, abnormal
behavior and mental health, drug use, self-concept, emotions, gender expectations and gender roles, social behavior, perception, learning, intelligence, and psychotherapy. By providing students with an understanding of cultural relativism this course will encourage them to interact with tolerance and/or appreciation in a world where there is an increasing contact among different cultures. This course may be offered in a distance education format.

**PSYC 25 INTRODUCTION TO RESEARCH METHODS – 3 Units**
**Prerequisite:** MATH 14 with a grade of C or higher and PSYC 1A with a grade of C or higher
**Advisory:** ENGL 1A with a grade of C or higher, or English Placement Level 7

Class Hours: 54 lecture total

This course surveys various psychological research methods with an emphasis on research design, experimental procedures, descriptive methods, instrumentation, and the collection, analysis, interpretation, and reporting of research data. Research design and methodology will be examined through a review of research in a variety of the sub-disciplines of psychology.

**PSYC 41 CULTURAL/SOCIAL CONTEXT OF CHILDHOOD – 3 Units**
**Advisory:** ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course examines child development with a focus on the effects of cultural and social factors. These factors include those such the socialization process and cultural influences such as ethnic identity, socioeconomic status, gender roles, family, peers, faith, and community. Significant references highlight the experiences of children and their families from several different historically underrepresented groups. This course may be offered in a distance education format.

**PSYC 46 HUMAN MEMORY AND LEARNING - 3 Units**
**Grading:** Pass/No Pass Option
**Advisory:** ENGL 190 with a grade of C or higher or English Placement Level 6 or higher

Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)

This course explores human memory, learning, and thinking processes. Topics include: how memories are formed and retrieved, how learning and memory can be improved, factors that influence our abilities to learn and remember, learning habits and behaviors through conditioning, typical and atypical memory flaws, including disorders such as post-traumatic stress disorder, Alzheimer’s disease, and amnesia. This course may be offered in a distance education format.

**PSYC 94 PSYCHOLOGY WORKSITE LEARNING – 1-8 Units**
**Limitation on Enrollment:** Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksites Learning Classes.

Class Hours: 75 hours paid or 60 hours non-paid per unit

The Psychology Worksites Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on-the-job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester. 75 hours of paid work, or 60 hours of unpaid (volunteer) work earn one semester unit.

**REGISTERED NURSING (REGN)**
See Also: HEOC and VOCN

**REGN 1 THEORETICAL FOUNDATIONS OF NURSING CARE – 6.5 Units (formerly REGN 60)**
**Limitation on Enrollment:** Students must be concurrently enrolled in REGN 2

Class Hours: 117 lecture total

In this first course leading to Registered Nursing licensure, the theoretical foundation is built by the student for application in the clinical area of adult and elderly adult medical-surgical nursing. The learner is studying the underlying theories and principles of fundamental nursing care and is introduced to concepts of medical-surgical nursing, which are demonstrated in the corequisite clinical course, REGN 2 Clinical Foundations of Nursing Care. The learner expands on prerequisite course work to ensure a safe foundation for clinical practice. The student demonstrates critical thinking through application of the nursing process. Fundamental physical health assessment is emphasized and therapeutic communication is applied in patient and family interactions. Wellness is promoted through the patient education process.

**REGN 2 CLINICAL FOUNDATIONS OF NURSING CARE – 5.5 Units (formerly REGN 61)**
**Limitation on Enrollment:** Students must be enrolled in the nursing program

**Corequisite:** Students must be concurrently enrolled in REGN 1

**Note:** All students participating in clinical rotations must submit proof of immunizations, TB clearance, and physical examination; pass a drug screening and background check; and, have current certification in cardiopulmonary resuscitation (CPR) for the health professional according to established program process prior to going into clinical facilities. Students are financially responsible for meeting these requirements.

Class Hours: 297 clinical total

*Lab hours may be listed as TBA in course schedule. Specific times and meeting location(s) will be provided in the First Class Handout.

The first clinical course leading to Registered Nursing licensure finds the student building a safe foundation for nursing care with basic nursing skill demonstration in the Clinical Skills Laboratory. Successful completion of basic nursing skills as vital signs, bathing, skin care, mobility, and bowel care are then applied to patient care in the hospital setting. The Clinical Skills Laboratory is utilized continuously throughout the course for more complex fundamental skills such as medication preparation and administration, urinary catheterization, and sterile technique. Application of the theory presented in the corequisite course, REGN 1 Theoretical Foundations of Nursing Care, finds the student caring for adult and elderly adult medical-surgical patients. The student organizes nursing care through the nursing process; demonstrates effective communication; and maximizes opportunities for patient education. Simulation lab activity is used to enhance theory application to the care of medical-surgical patients.

**REGN 10 THEORETICAL CONCEPTS OF MEDICAL SURGICAL NURSING I – 6.5 Units (formerly REGN 70)**
**Prerequisite:** REGN 1 and REGN 2 with a grade of C or higher

**Corequisite:** Students must be concurrently enrolled in REGN 11 and REGN 12

**Note:** If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.

Class Hours: 117 lecture total

REGN 10 is a required prerequisite for REGN 20 and REGN 21. REGN 10 is a required course for the Associate Degree Nursing program at Shasta College. This course is one of the three Corequisite courses that make up the second semester of the Associate Degree Nursing program. Building upon the content of REGN 1 and REGN 2, the students will expand their knowledge of medical surgical nursing. Foundational information regarding disease process, etiology, pathophysiology, and clinical manifestations begin each unit of study. Then, utilizing a nursing process matrix, medical surgical content is discussed in relationship to assessment, diagnosis, planning, nursing interventions, and evaluation. Independent, dependent, and collaborative nursing interventions are explored.
Building upon the content of REGN 10 and REGN 11 and REGN 12, the students will expand their knowledge of medical surgical nursing and examine the fundamentals of obstetrical and pediatric nursing. Concepts emphasized include family, communication, health promotion, illness prevention, teaching, cultural sensitivity, growth and development, nursing process, critical thinking, legal-ethical issues and advocacy.

REGN 20X SELECT THEORETICAL CONCEPTS OF FAMILY/ MATERNAL-CHILD NURSING AND MEDICAL SURGICAL NURSING II (NON-DEGREE) – 4 Units
(formerly REGN 90X/REGN 91X)

Corequisite: REGN 21X

Limitation on Enrollment: Students must be enrolled in the 30-unit option program.

Note: This is the course for the non-degree, 30-unit option student. If not previously completed, all students participating in clinical rotations must complete a physical examination and pass required elements, submit proof of required immunizations, drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.

Class Hours: 72 lecture total

REGN 20X is designed for the Licensed Vocational Nurse enrolled in the 30-unit non-degree program. It is a required prerequisite course for REGN 33X, and REGN 34X. This course is one of two co-requisite courses that make up the third semester of the Non Degree Registered Nursing program. The students will expand their knowledge of medical surgical nursing and examine complications in obstetrical and pediatric nursing. Concepts emphasized include family, communication, health promotion, illness prevention, teaching, cultural sensitivity, growth and development, nursing process, critical thinking, legal-ethical issues and advocacy.

REGN 21 CLINICAL CONCEPTS OF FAMILY/MATERNAL-CHILD AND MEDICAL SURGICAL NURSING II – 5 Units
(formerly REGN 91)

Prerequisite: REGN 10, REGN 11 and REGN 12 with a grade of C or higher

Corequisite: REGN 20

Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.

Class Hours: 270 clinical total

Lab hours may be listed as TBA in course schedule. Specific times and meeting location(s) will be provided in the First Class Handout.
to three increasingly complex patients. Emphasis is placed on the integration of theory and the nursing process into the clinical setting by use of organizational tools, clinical papers, a nursing care plan, chart review, and clinical conferences.

REGN 21X  CLINICAL CONCEPTS OF FAMILY/MATERNAL-CHILD AND MEDICAL SURGICAL NURSING II (NON-DEGREE) – 4 Units (formerly REGN 90X/REGN 91X)
Corequisite: REGN 20X
Limitation on Enrollment: Students must be enrolled in the 30-unit option program
Note: This is the course for the LVN non-degree, 30-unit option student. If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 216 clinical total

REGN 21X is designed for the Licensed Vocational Nurse enrolled in the 30-unit non-degree program. This course is one of two corequisite courses that make up the first semester of the 30-unit option non-degree program. The students will expand the fundamental clinical nursing skills they mastered. Students will have a variety of patient assignments on the obstetrical, pediatric, medical, surgical, oncology, and orthopedic floors with special assignments in the OB clinic, Shasta College preschool, home care agencies, the emergency department and pre-anesthesia unit. Clinical skills will include receiving report, organizing their patient care, assessments, documentation, medication administration, intravenous therapy, venapuncture, blood administration, TPN/Lipid administration, accuchecks, and analyzing daily labs. Students will progress from providing care for a single patient to providing care up to three increasingly complex patients. Emphasis is placed on the integration of theory and the nursing process into the clinical setting by use of organizational tools, clinical papers, a nursing care plan, chart review, and clinical conferences.

REGN 33  THEORETICAL CONCEPTS OF MENTAL HEALTH, COMMUNITY-BASED NURSING & MEDICAL SURGICAL NURSING III – 6 Units (formerly REGN 30/31; 80/81)
Prerequisite: REGN 20 and REGN 21
Corequisite: Students must be concurrently enrolled in REGN 34
Class Hours: 108 lecture total

REGN 33 is one of the final required courses for the Associate Degree Nursing program at Shasta College and one of two co-requisite courses that comprise the fourth semester of the Associate Degree Nursing Program. The course provides the conceptual basis of nursing care for patients in high acuity medical surgical, mental health and community-based settings. The emphasis of this course is on complex medical surgical conditions, fundamentals of mental health, community health nursing, fundamental concepts of nursing leadership, legal-ethical issues, current trends in practice, preparation for and successful completion of the licensing examination, and professional career development. The nursing process and critical thinking skills are emphasized. Students use the nursing process and critical thinking to plan, implement, and evaluate the acute and rehabilitative care of complex medical surgical and mental health patients. In addition to on-campus meetings, a portion of the course communication and activities will take place via the Internet. Students will need access to a computer with Internet access.

REGN 34  THEORETICAL CONCEPTS OF MENTAL HEALTH, COMMUNITY-BASED NURSING & MEDICAL SURGICAL NURSING III – 6 Units (formerly REGN 32, REGN 82X)
Prerequisite: REGN 20 and REGN 21 with a grade of C or higher
Corequisite: REGN 33
Note: If not previously completed, all students participating in clinical rotations must submit proof of immunizations, current CPR certification, TB screening, physical examination, drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 324 clinical total*

*Lab hours may be listed as TBA in course schedule. Specific times and meeting location(s) will be provided in the First Class Handout.

REGN 34 is a required course for the Associate Degree Nursing program at Shasta College and one of two co-requisite courses that comprise the fourth semester of the Associate Degree Nursing Program. Building upon the content of REGN 20 and 21 students expand previously learned clinical nursing skills to become increasingly independent. Students have assigned patients in a variety of clinical settings. For example, clinical rotations may include acute care, critical care, rehabilitation, mental health, and community health. Each student will spend 120 hours in a preceptorship during the semester. The preceptorship is the capstone clinical project of the semester. Emphasis is placed on the integration of theory and the nursing process in the clinical setting through the use of clinical papers, clinical conferences, group projects, and nursing care plans. In addition to on-campus meetings and clinical rotations, a portion of the course communication and activities will take place via the Internet. Students will need access to a computer with Internet access.

REGN 34X  CLINICAL CONCEPTS OF MENTAL HEALTH, COMMUNITY-BASED NURSING & MEDICAL SURGICAL NURSING III (NON-DEGREE) – 6 Units (formerly REGN 32X, REGN 82X)
Prerequisite: REGN 20X and REGN 21X with a grade of C or higher
Corequisite: REGN 33X
Limitation on Enrollment: Students must be enrolled in the 30-unit option program
Note: This is the course for the non-degree, 30-unit option program. If not previously completed, all students participating in clinical rotations must submit proof of immunizations, current CPR certification, TB screening, physical examination, drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 324 clinical total

REGN 34X is a required course for the Associate Degree Nursing program at Shasta College and one of two co-requisite courses that comprise the fourth semester of the Associate Degree Nursing Program. Building upon the content of REGN 20 and 21 students expand previously learned clinical nursing skills to become increasingly independent. Students have assigned patients in a variety of clinical settings. For example, clinical rotations may include acute care, critical care, rehabilitation, mental health, and community health. Each student will spend 120 hours in a preceptorship during the semester. The
preceptorship is the capstone clinical project of the semester. Emphasis is placed on the integration of theory and the nursing process in the clinical setting through the use of clinical papers, clinical conferences, group projects, and nursing care plans. In addition to on-campus meetings and clinical rotations, a portion of the course communication and activities will take place via the Internet. Students will need access to a computer with Internet access.

SIGN LANGUAGE (SL)
Refer to American Sign Language – ASL

SKILLS DEVELOPMENT (SDEV)

SDEV 301 PRE-GED TEST PREPARATION – 0 Units
Advisory: English Placement Level 2 or higher
Class Hours: 54-108 lab total
This is a course to prepare the student at the 6th- to 8th-grade reading level for GED (General Educational Development Test) level work and to enable students to apply the knowledge gained to real-life situations. Course content includes skill building and test-taking practice in the areas of reading, writing, social studies, science and mathematics. The purpose of this class is to provide the necessary foundation for the student to tackle GED-level work. This course may be offered in a distance education format.

SOCIOLOGY (SOC)

SOC 1 INTRODUCTION TO SOCIOLOGY – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the basics of sociology—the study of society. Sociology examines the interactions among social institutions, cultures, groups, and individuals. This course will focus on how unequal power relations organize the social world and shape individual lives, and how individuals negotiate their lives in different social and economic contexts. The course will examine a broad array of topics using a variety of theoretical perspectives and sociological research methods. The primary goal of this course is to recognize how people's experiences are shaped by social forces and restated through human action. This course may be offered in a distance education format.

SOC 2 SOCIAL PROBLEMS – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines several social problems from a sociological perspective. This approach makes two major assumptions. First, individuals are products of their social environment. Questions such as who we are, what we believe, what we strive for, and how we feel about ourselves, etc. have to be addressed by analyzing the society in which we live. This requires the use of the "Sociological imagination" or looking at human attitudes, behaviors and feelings in the context of the social forces and institutional arrangements that shape them. Second, because sociology considers social structures responsible for social problems, we need to adapt a critical stance towards all social forms. This approach will help foster a more critical sociological approach to social problems. This course may be offered in a distance education format.

SOC 15 SOCIOLOGY OF MASS MEDIA – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the central role media plays in daily life. Starting from a micro sociological standpoint, students will examine how knowledge and experiences are increasingly mediated by the mass media in its various forms. The course also explores the effects of media, including television, radio, newspapers, and the Internet, on social institutions which in turn permeate and shape public policy, the economy, education, and even the family. The course will examine ways in which mass media contributes to social/cultural power and stratification and will use the "process of mutual determination" to examine the relationship between media, individuals, and society. This course may be offered in a distance education format.

SOC 22 SOCIOLOGY OF AGING – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total
The consequences of demographic, economic, and social trends associated with population aging are challenging policy makers around the globe. This course will examine these processes as they affect individuals, families, and societies. Course content will examine themes surrounding aging and social policy in order to better understand the social context that contributes to enhancing or diminishing the quality of life in old age. Areas of analysis include: health care rationing, family versus government responsibility, Social Security, retirement, changing norms and values, the elderly and the life course. This course may be offered in a distance education format.

SOC 25 SOCIOLOGY OF MINORITIES – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The purpose of this course is to introduce students to the sociological study of race and ethnicity in the United States. This course will explore the relations between racial and ethnic minorities and the larger society. The histories of employment, educational options, civil and legal rights and social experiences will be viewed as they reflect race, ethnic and gender biases in our institutions. We will also focus on how different groups resisted oppression and actively shaped a more democratic America. This course may be offered in a distance education format.

SOC 30 SOCIOLOGY OF GENDER – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher, or ESL 138 with a grade of C or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to the sociological study of gender. The central themes of the course will be changes and continuities in gender roles within the U.S. and abroad, the social processes that influence our lives and gender identities, and the connections between gender, power, and inequality. As we explore these themes, we will study how culture, the economy, and the family have been pivotal sites for the maintenance, reproduction, and change in gender roles in both the U.S. and abroad. We will pay special attention to the ways in which race, class and sexual orientation intersect processes of gender relations and social change. This course may be offered in a distance education format.
The basic purpose of this course is to provide students with an introduction to social services and the social work profession, including social work fields of practice, social service agencies, and levels of social work practice. The course will focus on the critical examination of social welfare issues, including a historical perspective, contemporary issues, structures of the current system, and alternative concepts. Discussions will examine direct services (micro level practice) and administration/planning (macro level practice). An overview of social service work will include discussion of the following areas: health care, children and family services, substance abuse, schools, mental health, the elderly, developmental disabilities, criminal justice, and the workplace. This course may be offered in a distance education format.

SPANISH (SPAN)
Two years of high school foreign language with grades of "C" or better is equivalent to one semester of foreign language at Shasta College.

SPAN 1 SPANISH 1 – 5 Units
Grading: Pass/No Pass Option
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 90 lecture total
This introductory course is designed to give the student thorough and intense practice in speaking and listening to Spanish, and reading and writing in Spanish, with special emphasis on grammar and pronunciation. The course will focus on communicative competence in situations relating to daily routines, home life, college life, and everyday activities such as meeting and describing people; finding out about schedules, directions, and locations; discussing weather, eating, and holidays. Students are introduced to the culture of Spanish-speaking people in general and to specific customs and cultural characteristics of various Spanish-speaking countries.

SPAN 2 SPANISH 2 – 5 Units
Grading: Pass/No Pass Option
Prerequisite: SPAN 1 with a grade of C or higher, or Foreign Language Placement Level 2 or higher
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 90 lecture total
This course is a continuation of SPAN 1. There is continued emphasis on listening to and reading Spanish (receptive skills) and on speaking and writing Spanish. Students expand their language skills and vocabulary. Students also improve their ability to ask and answer questions and to discuss current events, health, food, travel, leisure time and activities, and shopping. The course will focus on communicative competence in situations relating to the aforementioned areas and also to art, music, commerce, family, and the future. Students learn to express themselves in Spanish regarding these topics as they relate to the culture of Spanish-speaking people in general and to some specific Spanish-speaking countries.

SPAN 3 SPANISH 3 – 3 Units
Grading: Pass/No Pass Option
Prerequisite: SPAN 2 with a grade of C or higher, or Foreign Language Placement Level 3 or higher
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course is a continuation of SPAN 2. SPAN 3 includes a compact, detailed review of first-year material as well as new vocabulary and expansion of first-year principles, development of more advanced communication and composition skills, and verb tenses and structures. The course offers extensive conversational exercise with stress on correct pronunciation. The course also includes an introduction to Spanish and Latin American literature and further discussion of the arts in general, particularly as they relate to the culture of the Spanish-speaking countries.

SPAN 4 SPANISH 4 – 3 Units
Grading: Pass/No Pass Option
Prerequisite: SPAN 3 with a grade of C or higher, or Foreign Language Placement Level 4
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course is a continuation of SPAN 3. SPAN 4 (along with SPAN 3) comprises a compact, detailed review of first-year material as well as new vocabulary and expansion of first-year principles, development of more advanced communication and composition skills, and more comprehensive overview of verb tenses and structures. This course offers extensive conversational exercise with stress on correct pronunciation. The course also includes further discussion of Spanish and Latin American literature and of the arts in general, particularly as they relate to the culture of Spanish-speaking countries.

SPAN 19 SPANISH CONVERSATION AND CULTURE I – 3 Units
Grading: Pass/No Pass Option
Prerequisite: SPAN 2 with a grade of C or higher, or Foreign Language Placement Level 3
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 54 lecture total
Intense practice in the spoken language with the objective of increasing vocabulary and improving speech patterns as well as pronunciation by giving oral presentations, conversing, and analyzing Spanish phonology.

SPAN 20 SPANISH CONVERSATION AND CULTURE II – 3 Units
Grading: Pass/No Pass Option
Prerequisite: SPAN 3 with a grade of C or higher, or Foreign Language Placement Level 4
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 54 lecture total
Continued intense practice in spoken Spanish with the objective of facilitating development of better conversation and communication skills, increasing vocabulary, and improving speech patterns and pronunciation by giving oral presentations, conversing, and analyzing Spanish-speaking culture.

SPAN 151 SPANISH VOCABULARY (formerly SPAN 151AB) – 3 Units
Grading: Pass/No Pass Option
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course will help those students who want to learn Spanish vocabulary and grammar in order to facilitate very basic communication in everyday workplace and social situations. Students are introduced to pronunciation and minimum essentials of Spanish vocabulary. This course is a survey of basic vocabulary, numbers (1-1000), some vocabulary useful in the workplace, practice of simple phrases, intense practice in comprehending simple phrases and practice in responses to simple phrases given within the context of a professional or vocational situation.

SPAN 155 SPANISH FOR MEDICAL PROFESSIONALS – 3 Units
Grading: Pass/No Pass Option
Class Hours: 54 lecture total
This course is designed to help health care workers in the United States assess, treat, reassure and educate their Spanish-speaking clients/patients. This course facilitates better communication between health care providers and the growing Spanish-speaking population in the United States and in Northern California. Course topics include the building of the patient-practitioner relationship, understanding the patient’s chief complaint, taking medical history and current symptoms,
and learning about cultural factors affecting the health care provided to Spanish speakers and the workers that care for them.

**SPAN 197  SPECIAL TOPICS IN SPANISH – .5 - 3 Units**
Grading: Pass/No Pass Option
Advisory: ENGL 280 with a grade of C or higher, or English Placement Level 5 or higher
Class Hours: 9-54 lecture total

This course is designed to meet the needs of professionals who work with Spanish speakers. Essentials of Spanish pronunciation and grammar are introduced, along with commands, the present indicative, and the two past tenses. Communicative skills will be developed through role-plays of realistic situations, practiced dialogues, and study of specialized vocabulary.

**SPEECH**
See CMST – Communication Studies

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**STUDENT DEVELOPMENT (STU)**

**STU 1  COLLEGE SUCCESS – 3 Units (formerly GS 1)**
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 54)

This course is designed to assist students in obtaining the skills and knowledge necessary to reach their educational objectives. Topics covered include: motivation and discipline, memory development, time and stress management, career and transfer planning, and a wide variety of study skills and techniques for success. This course may be offered in a distance education format.

**STU 20  TRANSFER SUCCESS – 1 Unit**
Class Hours: 1 lecture total

This course promotes academic success by providing students with information that will clarify the transfer process, identify support services on campus, and assist them in developing a comprehensive transfer plan. Topics include a review of higher education options, the process for determining a major, applications and admissions timelines, and criteria for establishing educational goals. This course may be offered in a distance education format.

**STU 50  GETTING CONNECTED: AN ORIENTATION TO COLLEGE – .5-1 Unit (formerly GS 50)**
Class Hours: 9-18 lecture total

This course includes an orientation to the educational opportunities, programs and services available at Shasta College as well as the procedures for accessing them. In the one unit version of the course, students will deepen their sense of educational purpose and commitment through developing effective “Education Plans” and building “Connections for Success.” This course is appropriate for all students. It fulfills the orientation requirement for priority registration.

**STU 70  COLLEGE STUDY AND LEARNING SKILLS – 1 Unit  (formerly ENGL 171)**
Grading: Pass/No Pass Option
Class Hours: 18 lecture total

Designed to help non-traditional and traditional students to develop learning skills and to achieve the greatest amount of competency in their college class work. The class will help the student to take notes effectively, read and study course materials, prepare for exams, and complete written assignments.

**STU 90  CAREER CHOICE – 1 Unit (formerly GS 90)**
Grading: Pass/No Pass Option
Class Hours: 18 lecture total

A course designed for students who are undecided about their educational and/or career goals. Through a series of group exercises, and career development testing, students learn to identify personal values, interests, skills, aversions, and personality patterns and understand how they relate to choices in the world of work. Students learn to access occupational information, develop decision-making skills and set career goals. This course may be offered in a distance education format.

**STU 92 WORKSITE READINESS (formerly GS 92) – 1 Unit**
Grading: Pass/No Pass Option
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)

Designed to prepare students to be successful on the job. Students will gain insight into employer expectations, effective workplace attitudes, developing job-related communication skills, conflict resolution, and managing stress. Emphasis will be placed on maximizing learning opportunities in the workplace, the development of effective networking skills, personal skills-acquisition plan, and building a job search campaign. This course may be offered in a distance education format.

**STU 93A  TUTOR TRAINING: LEVEL I – 1 Unit**
Grading: Pass/No Pass Only
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)

This class provides students with techniques and strategies for peer tutoring and supplemental instructional support. Students will leave the class with the skills required to be an effective tutor; including an understanding of learning theories and strategies, learning styles, learning disabilities, effective communication, competence in a multicultural context and how to plan and structure a tutoring session. This course may be offered in a distance education format.

**STU 93B  TUTOR TRAINING: LEVEL II – .5 Unit**
Grading: Pass/No Pass Only
Prerequisite: STU 93A with a Pass
Class Hours: 9 lecture total (when offered in a Distance Education format, hours will total 27)

This course is designed for experienced tutors who have already completed Tutor Training Level I and would like to enhance their tutoring skills. This course will further explore the concepts, principles and methods of one-on-one and group tutoring and will include supervised practice. This course is designed for tutors involved with college learning centers and supplemental instruction programs. This course may be offered in a distance education format.

**STU 310  GENERAL TUTORING LAB/SUPERVISED TUTORING – 0 Units (formerly GS 310)**
Class Hours: TBA

This course provides tutoring assistance to increase the probability of a student’s successful completion of his or her educational objectives. Upon faculty/counselor referral, student will receive tutoring in designated subject areas in various tutoring labs on campus. Cumulative progress and attendance records will be maintained for this non-credit, open entry course. Hours will vary depending upon individual student’s needs.

**THEATRE ARTS (THTR)**

**THTR 1  INTRODUCTION TO THEATRE ARTS – 3 Units**
Class Hours: 54 lecture total

This course is a survey of Theatre Arts, theatre history, playwrights, practitioners, genres, production methods, dramatic structure, performance style, plays, terminology, history, criticism, and stagecraft. Students will develop an appreciation for the theatre arts through lectures, play reading, viewing, critiquing, and participating in college productions. This course fulfills the Arts requirement for General Ed Transfer.

**THTR 5  20TH CENTURY THEATRE – 3 Units**
Advisory: ENGL 190 with a grade of C or higher, or English Placement Level 6 or higher
Class Hours: 54 lecture total

This course is a survey course in trends and developments of 20th Century theatre. Major playwrights (Ibsen, Chekhov, Miller), personalities (Craig, Artaud), and theatre innovators (Brecht) of this century will be examined. Mainstream and radical influences as well as the impact of technology on plays and performances will be discussed. This course fulfills the Humanities requirement for General Education transfer and is required for Theatre majors.
THTR 8  HISTORY OF WORLD THEATRE I – 3 Units  
Class Hours: 54 lecture total  
This is a survey course of Theatre History emphasizing cultural, historic, and international theatre from its origins through the 17th Century. It includes exploration of experience, imagination and expression of dramatic art forms throughout the world. Topics include: historical development and context, text analysis, acting style, theme, language, diction, set, audience, gender issues, special effects, cultural significance and production stylization.

THTR 9  HISTORY OF WORLD THEATRE II – 3 Units  
Class Hours: 54 lecture total  
This is a survey course of Theatre History emphasizing cultural, historic, and contemporary theatre from 1700 to the present. It includes exploration of experience, imagination and expression in dramatic art forms throughout the world. Topics include: historical development and context, text analysis, acting style, theme, language, diction, set, audience, gender issues, special effects, and cultural significance.

THTR 12  ACTING I – 2 Units  
Class Hours: 18 lecture/54 lab  
This course prepares a student to apply basic acting theory to performance and develops the skills of interpretation of drama through acting. Special attention is paid to skills for performance: memorization, stage movement, vocal production, and interpretation of text.

THTR 13  ACTING II – 2 Units  
Prerequisite: THTR 12 with a grade of C or higher  
Class Hours: 18 lecture/54 lab total  
This course prepares a student to apply basic acting theory to performance and develops the skills of interpretation of drama through acting. Special attention is paid to skills for performance: memorization, stage movement, vocal production, and interpretation of text.

THTR 16  ACTING LAB – 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: THTR 12 with a grade of C or higher  
Class Hours: 54 lab total  
This laboratory course follows Acting I and Acting II and continues the exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process through character analysis, monologues, and scenes.

THTR 23  MAINSTAGE PRODUCTION I – 1-4 Units  
(formerly THTR 23AD)  
Class Hours: 54-216 lab total  
In this fundamental course students rehearse, prepare and perform a Mainstage play. Play selections vary each time this course is taught. Production activities may include acting, stage management, stage operations, costuming, stagecraft and front of house operations. The course is required for theatre majors, non-majors are welcome. Students may enroll more than once for this course until reaching the maximum number of 4 total units.

THTR 26  MAINSTAGE PRODUCTION II – 1-6 Units  
(formerly THTR 26AD)  
Grading: Pass/No Pass Option  
Class Hours: 54-324 lab total  
A course that focuses on the rehearsal and performance of a major play or musical. Activities may include acting, stage management, backstage operations, costuming, stagecraft and front of house operations. Play selections vary each time this course is taught. Students may enroll more than once for this course until reaching the maximum number of 6 total units.

THTR 29  DIRECTING – 2 Units (formerly THTR 22EH)  
Grading: Pass/No Pass Option  
Class Hours: 18 lecture/54 lab total  
This course is designed to introduce the student to the background, function and techniques of the stage director. Included in the course will be an investigation of the principles involved in script selection and interpretation, the fundamentals of casting, rehearsal techniques, blocking, aims and conduct, rehearsal scheduling, and the preparation of a director's prompt book. Students should have previous experience in theatre performance and production.

THTR 30  STAGECRAFT – 3 Units  
Grading: Pass/No Pass Option  
Class Hours: 45 lecture/27 lab total  
This course focuses on the technical principles of theatrical productions. Subjects covered include the use of basic power tools, the design, construction and painting of scenery, hanging and operating lighting instruments, basic stage management and understudying backstage operations. Students will learn how to interpret theatrical construction diagrams, floor plans for stage sets, and light plots.

THTR 31  INTRODUCTION TO THEATRICAL DESIGN – 3 Units  
(formerly THTR 35)  
Grading: Pass/No Pass Option  
Class Hours: 54 lecture total  
This course focuses on the theories of stage design, stage management and implementation of the technical elements of a theatrical production, including scenic design, costumes, makeup, lighting and stage properties. Students will survey theatrical equipment and analyze construction techniques.

THTR 34  MAKEUP – 2 Units  
Grading: Pass/No Pass Option  
Class Hours: 27 lecture/27 lab total  
This course is designed to introduce the student to the principles and practical application of stage makeup. Emphasis will be given to facial structure, character analysis, makeup selection, application, facial modeling, three-dimensional techniques, false hair, character and corrective makeup. The student will demonstrate his/her understanding through actual application in the classroom and as a member of a makeup crew for a specific play production, special exercise, or project.

THTR 38  MAKEUP LAB – 1 Unit  
Grading: Pass/No Pass Option  
Prerequisite: THTR 34 with a grade of C or higher  
Class Hours: 54 lab total  
This lab course is designed to develop the student's skills introduced in Theatre 34, Makeup. Emphasis will be given to corrective character analysis, makeup selection and application techniques. The student will demonstrate his/her understanding through actual application in the classroom and as a member of a makeup crew for a specific play production, special exercise, or project.

THTR 41  THEATRE LABORATORY – 1-4 Units  
(formerly THTR 41AD)  
Grading: Pass/No Pass Option  
Class Hours: 54-216 lab hours total  
A laboratory course in which the student will receive supervised practical experience and technical training in theatrical productions. Students may work progressively in one or more of the following areas: scenery construction, fabrication and rigging; console operations; stage management; lighting; sound; costumes; wardrobe; properties; makeup; publicity; house management; concessions; and running crews. Upon approval of the instructor, students may direct and participate in the preparation, rehearsal, and performance of student directed productions. Play selections vary each time this course is taught. Students may enroll more than once for this course until reaching the maximum number of 4 total units.

THTR 42  TECHNICAL STAGE PRODUCTION – 1-4 Units  
(formerly THTR 42AD)  
Grading: Pass/No Pass Option  
Class Hours: 54-216 lab total  
A laboratory course in which the student will participate in one or more
of the following technical production areas: scenery construction, set decorations, lighting, sound, costumes, properties, makeup, stage management and publicity. The course will focus on the technical requirements for creating public performances and entertainments. Entertainment selections vary each time this course is taught. Students may enroll more than once for this course until reaching the maximum number of 4 total units.

**THTR 50 REHEARSAL AND PERFORMANCE – 1-3 Units**  
(formerly THTR 50AD)  
Grading: Pass/No Pass Option  
Class Hours: 54-162 lab total  
A rehearsal and performance course designed to provide experience in creating public performances, including but not limited to improvisation, dance, music, musical reviews and concerts. Entertainment selections vary each time this course is taught. Students may enroll more than once for this course until reaching the maximum number of 3 total units.

**THTR 51 STAGE PRODUCTION-CHEOREOGRAPHY – 1-3 Units**  
(formerly THTR 51AD)  
Grading: Pass/No Pass Option  
Class Hours: 54-162 lab total  
A course that teaches basic stage movement and dance for a stage production, including but not limited to dance, music, and concerts. Class projects will include participation in choreography in class or in stage productions. Play selections vary each time this course is taught. Students may enroll more than once for this course until reaching the maximum number of 3 total units.

**THTR 52 STAGE PRODUCTION – MUSIC – 1-3 Units**  
(formerly THTR 52AD)  
Grading: Pass/No Pass Option  
Class Hours: 54-162 lab total  
A course that teaches the use of vocal and instrumental music for a stage production, including but not limited to dance, music, theatre and concerts. Class projects will include participation in classroom activities and/or productions. Play selections vary each time this course is taught. Students may enroll more than once for this course until reaching the maximum number of 3 total units.

**THTR 60 SPECIAL PROJECTS-PRODUCTION – 1-2 Units**  
(formerly THTR 60AD)  
Class Hours: 54-108 lab total  
A course that provides specialized training in specific areas of a current production. The focus of instruction will be in training students to perform disciplined tasks within the context of a scheduled theatrical event, e.g. special vocal skills, acting methods, stage lighting, sceneography, script writing, choreography, makeup, puppetry, stagecraft, and/or other techniques needed to satisfy and complement a specific theatrical performance. Students may enroll more than once for this course until reaching the maximum number of 2 total units.

**THTR 70 REPERTORY THEATRE I – 1, 2, 3, 4, 6, 8, 10 Units**  
Class Hours: 54-540 lab total (54 hours per unit)  
In this course students will rehearse and perform one or more works in a repertory theatre format. Students will participate in a theatrical company/ensemble. They will share in the preparation, rehearsal, promotion, and public performance of a series of plays, musicals, or theatrical productions. Class projects and rehearsal activities may include choreography and music elements. Students may enroll more than once for this course until reaching the maximum number of 10 total units.

**THTR 74 REPERTORY THEATRE - TECHNICAL – 1, 2, 3, 4, 6, or 8 Units**  
Class Hours: 54-432 lab total (54 hours per unit)  
A laboratory course in which students will develop work experience and training in technical Repertory Theatre methods. Students may work progressively in one or more of the following areas: scenery construction, fabrication and rigging; console operations; stage management; lighting; sound; costumes; wardrobe; properties; make-up; publicity, house management, concessions, and running crews. Play selections vary each time this course is taught. Students may enroll more than once for this course until reaching the maximum number of 8 total units.

**THTR 81 PLAYWRITING AND SCRIPT ANALYSIS – 3 Units**  
Grading: Pass/No Pass Option  
Class Hours: 36 lecture/54 lab total  
An in-depth examination of the elements of the dramatic script. The course consists of four main areas of investigation: critiquing the script; playwrights; plotting and theatre conventions; creating and analyzing motivated characters. This course will guide the student toward creating scripts and analyzing their problems and help them distinguish drama from the performed theatre - i.e., scenarios for action.

**THTR 97 SPECIAL STUDIO TOPICS: THEATRE – 1-3 Units**  
Grading: Pass/No Pass Option  
Class Hours: 54-162 lab total  
This course is designed to give students studio-based instruction and experience in a variety of theatre processes and techniques not regularly covered in other theatre courses. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Theatre majors; open to anyone with an interest in the topic.

**THTR 98 SPECIAL TOPICS: THEATRE – 1-3 Units**  
Grading: Pass/No Pass Option  
Class Hours: 18-54 lecture total  
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge and contemporary issues in the field of theatre. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Theatre majors; open to anyone with an interest in the topic.

**THTR 153 COMMUNITY DRAMA – 1-4 Units**  
Grading: Pass/No Pass Option  
Class Hours: 54-216 lab total  
Designed specifically for small community groups in off-campus facilities, providing experience in the acting and technical production of scene, one-act and small cast plays. Students will be involved in the staging and rehearsal of scenes and plays to be performed during class in the following areas: acting, makeup, lighting, sound, scenery development, costuming, stage management, and publicity. Students will observe rehearsals and performances and discuss plays as they progress. Students may enroll more than once for this course until reaching the maximum number of 4 total units as the learning experience varies each time the course is offered due to the selected performance.

**THTR 301 APPLIED THEATRE TECHNIQUES-TECHNICAL – 0 Units (formerly THTR 301AD)**  
Class Hours: 9-162 lab total  
Course is designed to allow involvement in the production of a dramatic event for those with a particular interest in costuming, prop building, makeup, set building, sound and lighting, or other theatre related technical skills. Students will be exposed to learning new skills as well as applying skills already learned in a practical manner.

**THTR 302 APPLIED THEATRE – DRAMATIC – 0 Units**  
Class Hours: 9-162 lab total  
This course is designed to allow those interested in appearing in a dramatic presentation to become involved in a specific aspect of that production. Although new skills will be acquired, such as audition techniques, casting practices, orientation to repertory procedures, and introduction to theatre administration, the major emphasis of the class will be directed toward the preparation of a stage production.

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In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
### VOCATIONAL NURSING (VOCN)

See Also: HEOC and REGN

**VOCN 160 FOUNDATIONS OF NURSING PRACTICE – 15 Units**

**Limitation on Enrollment:** Students must be enrolled in the Vocational Nursing Program

**Note:** All students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.

**Class Hours:** 144 lecture/376 clinical total

*Lab hours may be listed as TBA in course schedule. Specific times and meeting location(s) will be provided in the First Class Handout.

VOCN 160 is the beginning sequence of three required courses for the Vocational Nursing Program. The emphasis of this course is development of fundamental nursing skills. Theory content includes role of the vocational nurse, nursing trends, interpersonal relationships, disease processes, and pharmacology. The student practices fundamental nursing skills in the Clinical Skills Laboratory prior to clinical assignment in long-term and acute care settings.

**VOCN 161 NURSING OF ADULTS – 13 Units**

**Prerequisite:** VOCN 160 with a grade of C or higher

**Note:** If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.

**Class Hours:** 144 lecture/288 clinical total

*Lab hours may be listed as TBA in course schedule. Specific times and meeting location(s) will be provided in the First Class Handout.

VOCN 161 is the second required course in the Vocational Nursing Program. The emphasis of this course is towards application of the nursing process in acute care settings. Theory content includes care of patients with common medical surgical problems. The student develops competence in administration of medications and varied therapeutic skills to assigned patients with safety and increasing confidence. Assignments include practice in the Clinical Skills Laboratory and medical, surgical, and orthopedic areas in acute care settings. Students may be assigned in such optional areas as operating room and recovery room for follow-through experience with their assigned surgical patients and in an ambulatory center.

**VOCN 162 NURSING OF ADULTS AND CHILDREN – 13 Units**

**Prerequisite:** VOCN 160 with a grade of C or higher

**Note:** If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.

**Class Hours:** 144 lecture/288 clinical total

*Lab hours may be listed as TBA in course schedule. Specific times and meeting location(s) will be provided in the First Class Handout.

VOCN 162 is the last required course in the Vocational Nursing Program. The emphasis of this course is on principles of nursing care for maternity, newborn, pediatric patients, and continuing care of patients with more complex medical surgical problems. Supervision/leadership skill behaviors are introduced in the long-term care setting. Assignments include clinical experience in the acute care, long-term care, home-care setting, medical, surgical, obstetrics (including nursery), pediatrics, acute progressive care, and outpatient clinics.

### WATER TREATMENT TECHNOLOGY (WTT)

**WTT 94 WATER TREATMENT TECHNOLOGY WORKSITE LEARNING – 1-8 Units**

**Limitation on Enrollment:** Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.

**Class Hours:** 75 hours paid or 60 hours non-paid per unit

The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student’s major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. A student may earn up to 16 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 8 units may be earned in a single semester.

**WTT 177 INTRODUCTION TO WASTEWATER TREATMENT – 3 Units (formerly NR 177)**

**Grading:** Pass/No Pass Option

**Class Hours:** 54 lecture total

This course is designed to provide the student with a general background in the design, operation, and maintenance of water and wastewater treatment plants and to prepare the experienced operator for certification examinations. This course is directed to primarily towards entry-level operators, industrial waste inspection, lab technicians, maintenance personnel, and related occupations. Explains how and why treatment of wastewater protects the environment.

**WTT 180 INTRODUCTION TO WATER TREATMENT TECHNOLOGY – 3 Units (formerly NR 180)**

**Grading:** Pass/No Pass Option

**Class Hours:** 54 lecture total

This course is designed to provide the student with a general background in the design, operation, and maintenance of water and wastewater treatment plants and prepares the experienced operator for the State Water Treatment Plant Operator Certification examination.

**WTT 181 INTERMEDIATE WATER TREATMENT TECHNOLOGY – 3 Units (formerly NR 181)**

**Advisory:** WTT 180 with a grade of C or higher

**Class Hours:** 54 lecture total

This course covers water supply and treatment, historical development of water quality control practices, water sources, public health aspects of water supply, chemical treatment, and evaluation of the various treatment processes. This course will prepare the experienced operator for certification examinations.

**WTT 183 INTERMEDIATE WASTEWATER TREATMENT – 3 Units (formerly NR 183)**

**Grading:** Pass/No Pass Option

**Class Hours:** 54 lecture total

This course will provide the student with a general background in advanced wastewater treatment processes, and prepare the operator for advanced certification examinations.

**WTT 184 SMALL WATER SYSTEMS AND DISTRIBUTION – 3 Units (formerly NR 184)**

**Advisory:** WTT 180 with a grade of C or higher

**Class Hours:** 54 lecture total

This course is designed to provide the student with a general background in the design, operation, and maintenance of small water systems and water distribution systems, and prepares the experienced operator for the State Water Treatment Plant and Distribution Operator Certification Examination.
WELD 174 STRUCTURAL STEEL MIG WELDING – 3 Units
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Grading: Pass/No Pass Option
A course to advance arc welding skills with emphasis on vertical and overhead welding. Course activities prepare the student for weld certification and advanced arc welding classes. Weld symbols, aluminum arc and cast iron welding are covered in this course.

WELD 1745 TIG WELDING – 3 Units
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. TIG (Tungsten Inert Gas) is an inert gas welding course also known as Heligard which covers aluminum, mild steel, stainless steel, magnesium and copper welding. The course consists of welding on flat and pipe stock in all positions. Course content will include metals identification and weld symbols. Welding exercises are stressed to develop welding skills.

WELD 176 GMAW MIG WELDING (LIGHT GAUGE AND NONFERROUS METAL) – 3 Units
Grading: Pass/No Pass Option
This course emphasizes developing MIG welding skills on light gauge steel, stainless, and aluminum. Related instruction will include ferrous and non-ferrous metal identification and their welding characteristics, MIG welding applications and variables, inert shielding gases and mixtures, troubleshooting MIG equipment and welds, and spot welding.

WELD 178 PIPE WELDING FUNDAMENTALS – 3 Units
Advisory: WELD 170 with a grade of C or higher or equal trade welding experience
A fundamental course in pipe welding with emphasis on open groove pipe joints using oxyacetylene, arc and inert gas welding processes in all positions.
Chapter 6 – Course Descriptions  

WELD 182 ADVANCED ARC WELDING – 1.5 Unit  
**Corequisite:** WELD 171 or previous completion of WELD 171 with a grade of C or higher or have equal trade welding experience  
**Note:** Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.  
**Class Hours:** 81 lab total  
An advanced course designed to prepare students to pass structural steel certification in vertical and overhead positions. SMAW (stick) and FCAW (MIG) processes will be used. The goal of this class is to pass the AWS D1.1 welding certificate test. Strict adherence to the testing procedures will be followed. Completion of the class does not guarantee AWS certification unless welding procedure qualification tests are passed.

WELD 183 ADVANCED ARC WELDING SPECIALTY LAB – 1.5 Unit  
**Prerequisite:** WELD 182, 184, 186, 188, with a grade of C or higher or equal trade welding experience  
**Note:** Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Hours of practice are needed to master skills to advance to the next level or become skilled enough for employment.  
**Class Hours:** 81 lab total  
An advanced course designed to prepare students to pass structural steel certification in vertical and overhead positions. Students can obtain certifications in both the SMAW (Shielded Metal Arc Welding), FCAW (Flux Cored Arc Welding) GTAW (Gas Tungsten Arc Welding) and Pipe Welding. The goal of this class is to pass the AWS D1.1, ASME or API Welding Qualification tests. Strict adherence to the testing procedures will be followed. Completion of the class does not guarantee certification unless welding procedure qualification tests are passed.

WELD 184 ADVANCED GTAW (TIG) WELDING – 1.5 Unit  
**Corequisite:** WELD 175 or previous completion of WELD 175 with a grade of C or higher or have equal trade welding experience  
**Note:** Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Hours of practice are needed to master skills to advance to the next level or become skilled enough for employment.  
**Class Hours:** 81 lab total  
An advanced welding laboratory class with emphasis on vertical and overhead welding. This class is designed for the student interested in improving his/her beginning skills in order to prepare for entry into the job force as TIG welder.

WELD 186 ADVANCED PIPE WELDING – 2 Units  
**Corequisite:** WELD 178 or previous completion of WELD 178 with a grade of C or higher or have equal trade welding experience.  
**Note:** Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Hours of practice are needed to master skills to advance to the next level or become skilled enough for employment.  
**Class Hours:** 108 lab total  
An advanced pipe welding class with emphasis on ASME, AWS, or API certification. Course instruction includes welding codes, pipe classification and identification. Completion of the class does not guarantee certification unless welding procedure qualification tests are passed.

WELD 188 ADVANCED GMAW (MIG) WELDING – 1.5 Unit  
**Corequisite:** WELD 174 or WELD 176 or previous completion of WELD 174 or WELD 176 with a grade of C or higher or have equal trade welding experience.  
**Note:** Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Practice is needed to master skills to advance to the next level of employment.  
**Class Hours:** 81 lab total  
An advanced welding laboratory class with emphasis on vertical and overhead welding. This class is designed for the student interested in improving his/her beginning skills in order to prepare for entry into the job force as a GMAW (MIG) welder.

WORKSITE LEARNING (WSL)  

WLS 94 GENERAL WORKSITE LEARNING – 1-6 Units  
**Limitation on Enrollment:** Financial aid students must maintain concurrent enrollment in seven (7) units which include worksite learning units. Students not receiving financial aid do not need to enroll in other courses in order to participate in Worksite Learning Classes.  
**Class Hours:** 75 hours paid or 60 hours non-paid per unit  
The General Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student. A faculty member supervises the WSL course to ensure that the work experience is of educational value. The course stresses good work habits and meeting of SCANS competencies through actual on the job performance. A student may earn up to 6 units through repeating this course since course content varies and skills are enhanced by supervised repetition and practice. A maximum of 6 units may be earned in a single semester.

ZOOL 1 GENERAL ZOOLOGY – 4 Units  
**Prerequisite:** MATH 102 with a grade of C or higher or Math Placement Level 4 or higher  
**Class Hours:** 36 lecture/108 lab total  
The study of the major divisions of the animal kingdom with emphasis on the origin, adaptations, functions, and development.

ZOOL 15 FIELD HERPETOLOGY OF NORTHERN CALIFORNIA – 1 Unit (formerly ZOOL 105)  
**Grading:** Pass/No Pass Option  
**Note:** Field trips are an integral part of the course and are therefore mandatory.  
**Class Hours:** 9 lecture/27 lab total  
Designed for individuals interested in natural history and field biology by providing the student with a basic awareness of the diversity of amphibians and reptiles that inhabit the local area. Lectures will feature slides, diagrams, maps and other media to present concepts in anatomy, physiology, behavior, systematics and distribution. The students will use various capture techniques and learn to record data and observations in a notebook format while in the field. Moderately rigorous hiking may be involved.

ZOOL 63 FIELD ORNITHOLOGY OF NORTHERN CALIFORNIA – 1 Unit (formerly ZOOL 163)  
**Grading:** Pass/No Pass Option  
**Class Hours:** 9 lecture/27 lab  
Designed for birdwatchers and open to students to fulfill part of the general education requirements in science. Lectures will feature films, slides, records, maps, and other media to present concepts in anatomy, physiology, behavior and distribution. Students will use various field techniques for studying bird populations.