Course Numbering System

The following course numbering system provides a detailed explanation regarding course number designations. When in doubt about the transferability of a course, always consult a counselor. Students are responsible for reviewing prerequisites and repeatability as noted in course descriptions. Where there is a conflict between the catalog statements and published curriculum sheets, the latter will take precedence. New courses and programs may be added throughout the year. For more information, access the online catalog at foothill.edu.

A degree-applicable credit course is a course that has been designated as appropriate to Foothill College degrees, which has been recommended by the College Curriculum Committee and approved by the district governing board as a collegiate course meeting the needs of students.

- Courses numbered 1–49 are typically approved for transfer to the University of California (UC).*
- Courses numbered 1–99 are typically transferable to the California State University (CSU).*
- Courses numbered 100 and above are typically not transferable.*
- Courses numbered 200–299 are non-degree-applicable and include prerequisites for required courses that lead to the associate degree.
- Courses numbered 300–399 are upper division courses for the Foothill baccalaureate degree program.**
- Courses numbered 400–499 are non-credit, adaptive learning, or other areas that do not apply to the associate degree.
- Community services courses are fee-based, and are scheduled and publicized separately from the state-supported courses identified in this catalog.

* There are some exceptions to this rule; therefore, students should consult with a counselor and/or access ASSIST.org to verify course transferability.

**Prior to the 2016-17 academic year, courses numbered 300-399 were workshop, review and other courses offered to meet special collegiate needs of a community nature.
ACCOUNTING

Business and Social Sciences
foothill.edu/accounting/

ACTG 1A  FINANCIAL ACCOUNTING I  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
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, ethics in accounting, the application of generally accepted accounting principles, international financial reporting standards, the financial statements, and financial statement analysis. Includes issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics. Financial Accounting is covered over a 2-course sequence: ACTG 1A and ACTG 1B.
FHGE: Non-GE Applicable Transferable: CSU/UC

ACTG 1B  FINANCIAL ACCOUNTING II  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1A.
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in ACTG 1BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Continuation of ACTG 1A focusing on accounting as an information system, examining why it is important and how it is used by investors, creditors, and others to make decisions. Long-term assets, short- and long-term liabilities, equity valuation, revenue and expense recognition, statement of cash flows, financial statement analysis, internal controls, and ethics.
FHGE: Non-GE Applicable Transferable: CSU/UC

ACTG 1CH  HONORS MANAGERIAL ACCOUNTING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1B or 1BH; Honors Institute participant.
Advisory: MATH 10 or high school algebra; not open to students with credit in ACTG 1C or 66.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Study of accounting information system for internal uses for decision-making, planning, directing operations and controlling. Process costing, job-order costing, activity-based costing, standard costing, cost behavior and cost-volume profit analysis, budgeting, performance evaluation, capital investment analysis, and ethics. As an honors course, it is a full hands-on course with advanced teaching methods focusing on extensive research of selected accounting theory or applying accounting techniques in preparing analytical papers and analyses related to selected managerial accounting problems. Distinguishing features include: deep focus on research, analysis, application, strong communication and critical thinking.
FHGE: Non-GE Applicable Transferable: CSU/UC

ACTG 1C  MANAGERIAL ACCOUNTING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1B or 1BH.
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in ACTG 1CH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Study of accounting information system for internal uses for decision-making, planning, directing operations and controlling. Process costing, job-order costing, activity-based costing, standard costing, cost behavior and cost-volume profit analysis, budgeting, performance evaluation, capital investment analysis, and ethics.
FHGE: Non-GE Applicable Transferable: CSU/UC

ACTG 1C  INTERMEDIATE ACCOUNTING I  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1B or 1BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Review of financial accounting standards, accounting information processing systems and the resulting financial statements. Selected topics related to present value applications, valuation techniques, and revenue recognition. Also covered, accounting for cash, receivables, and inventory.
FHGE: Non-GE Applicable Transferable: CSU

ACTG 1C  INTERMEDIATE ACCOUNTING II  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1B or 1BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Accounting for Property, Plant & Equipment, intangible assets, current liabilities, long-term liabilities, and equity.
FHGE: Non-GE Applicable Transferable: CSU

ACTG 51A  INTERMEDIATE ACCOUNTING I  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1B or 1BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Review of financial accounting standards, accounting information processing systems and the resulting financial statements. Selected topics related to present value applications, valuation techniques, and revenue recognition. Also covered, accounting for cash, receivables, and inventory.
FHGE: Non-GE Applicable Transferable: CSU

ACTG 51A  INTERMEDIATE ACCOUNTING II  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1B or 1BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Review of financial accounting standards, accounting information processing systems and the resulting financial statements. Selected topics related to present value applications, valuation techniques, and revenue recognition. Also covered, accounting for cash, receivables, and inventory.
FHGE: Non-GE Applicable Transferable: CSU

ACTG 51B  INTERMEDIATE ACCOUNTING II  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1B or 1BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Review of financial accounting standards, accounting information processing systems and the resulting financial statements. Selected topics related to present value applications, valuation techniques, and revenue recognition. Also covered, accounting for cash, receivables, and inventory.
FHGE: Non-GE Applicable Transferable: CSU
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status:</th>
<th>Prerequisite(s)</th>
<th>Grade Type:</th>
<th>FHGE: Non-GE Applicable</th>
<th>Transferable: CSU</th>
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<tbody>
<tr>
<td>ACTG 51C</td>
<td>INTERMEDIATE ACCOUNTING III</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>ACTG 1B or 1BH.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable</td>
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<tr>
<td>ACTG 52</td>
<td>ADVANCED ACCOUNTING</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>ACTG 51A.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable</td>
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<tr>
<td>ACTG 53</td>
<td>FINANCIAL STATEMENT ANALYSIS</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>ACTG 1B or 1BH.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable</td>
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</tr>
<tr>
<td>ACTG 54</td>
<td>ACCOUNTING INFORMATION SYSTEMS</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>ACTG 1B or 1BH.</td>
<td>Letter Grade Only</td>
<td>Not Repeatable</td>
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<tr>
<td>ACTG 58</td>
<td>AUDITING</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>ACTG 51A.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable</td>
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<tr>
<td>ACTG 59</td>
<td>FRAUD EXAMINATION</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>ACTG 51A.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable</td>
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</tr>
<tr>
<td>ACTG 60</td>
<td>ACCOUNTING FOR SMALL BUSINESS</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>ACTG 1B or 1BH.</td>
<td>Letter Grade Only</td>
<td>Not Repeatable</td>
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<tr>
<td>ACTG 64A</td>
<td>COMPUTERIZED ACCOUNTING PRACTICE USING QUICKBOOKS</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>ACTG 1A or concurrent enrollment in ACTG 1A or 60.</td>
<td>Letter Grade Only</td>
<td>Not Repeatable</td>
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</tbody>
</table>

FHGE: Non-GE Applicable  Transferable: CSU
ACTG 64B COMPUTERIZED ACCOUNTING PRACTICE USING EXCEL 4 Units
Degree & Credit Status: Degree-applicable credit course
Corequisite: Completion of or concurrent enrollment in ACTG 1B or 1BH.
Advisory: Not open to students with credit in CIS 64B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Practice in using an electronic spreadsheet program to organize and process financial and managerial accounting data. Includes research on the Internet.
FHGE: Non-GE Applicable  Transferable: CSU

ACTG 65 PAYROLL & BUSINESS TAX ACCOUNTING 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1A.
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Presentation of basic payroll procedures used in business today. Provides practice in recording procedures and preparation of tax returns.
FHGE: Non-GE Applicable  Transferable: CSU

ACTG 66 COST ACCOUNTING 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1C or 1CH, or equivalent experience.
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Fundamentals of activity-based costing, job-order, process cost, and standard cost accounting systems.
FHGE: Non-GE Applicable  Transferable: CSU

ACTG 67 TAX ACCOUNTING 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Current federal and California income tax law as it relates to individuals, emphasizing practical application, tax planning and tax form preparation.
FHGE: Non-GE Applicable  Transferable: CSU

ACTG 68A ADVANCED TAX ACCOUNTING I 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 67.
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Current federal income tax law as it relates to sole proprietorship and partnership.
FHGE: Non-GE Applicable  Transferable: CSU

ACTG 68B ADVANCED TAX ACCOUNTING II 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 67.
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Current federal income tax law as it relates to corporations, estate, trust, and gift taxes.
FHGE: Non-GE Applicable  Transferable: CSU

ACTG 68C ADVANCED TAX ACCOUNTING III 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 67.
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Current federal income tax administration and procedures and review of Enrolled Agent Exam.
FHGE: Non-GE Applicable  Transferable: CSU

ACTG 70R INDEPENDENT STUDY IN ACCOUNTING 1 Unit
Degree & Credit Status: Degree-applicable credit course
ACTG 71R 2 Units
ACTG 72R 3 Units
ACTG 73R 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Accounting beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU

ACTG 75 ACCOUNTING FOR GOVERNMENT & NOT-FOR-PROFIT 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ACTG 1B or 1BH.
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Study of governmental and not-for-profit accounting. Topics include financial reporting; federal, state and local government accounting; budgetary accounting; general and special revenue funds; proprietary funds; trust and agency funds; fixed assets and long term debt; and nonprofit accounting for entities such as public colleges, universities and health care providers.
FHGE: Non-GE Applicable  Transferable: CSU
FHGE: Non-GE Applicable  Transferable: None

in and out of class. Programs, t-coils, music programs). Practical experience in lip-reading both in and out of class. Going to the movies will be discussed along with special features of hearing aids (e.g., restaurant alarms and emergency procedures, technology for going to the movies will be discussed along with special features of hearing aids (e.g., variable digital settings, restaurant programs, t-coils, music programs). Practical experience in lip-reading and using adaptive equipment both in and out of class. Speech reading difficult-to-see vowels, consonants and blends.

FHGE: Non-GE Applicable  Transferable: None

SPEECHREADING CHALLENGE 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
24 hours total.
For adults who have been practicing lip-reading/speechreading techniques and want to maintain performance levels through highly challenging practice sessions that use the variety of skills needed for ease of communication barriers caused by hearing loss. Improve ability to lip-read in real time and complex conversational situations.

FHGE: Non-GE Applicable  Transferable: None

LITERARY LIP-READING 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
24 hours total.
Advanced instruction in lip-reading techniques for the hard of hearing adult. Practice in lip-reading/speechreading using group discussion of readings presented in class by a variety of speech models. Emphasis on speechreading language samples that vary in length from one word to one paragraph with or without context, sometimes presented partially aloud, sometimes in complete silence. Additional focus on utilization of extensive contextual cues and use of short- and long-term memory to help with speech understanding, as well as focus on homophone review and visibility of articulation of speech sounds, visible discrimination of speech sounds. Lip-reading materials will consist of the reading of books, short stories or articles written in contemporary American English read together in class, suggested by students and selected by the instructor or by a vote of the students.

FHGE: Non-GE Applicable  Transferable: None

WORLD NEWS DISCUSSION 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
24 hours total.
Intended for the disabled to study world news by examining turning points in history, comparing and contrasting them with current world events to enhance memory retention and self-esteem.

FHGE: Non-GE Applicable  Transferable: None
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ALCB 407Y</td>
<td>SOCIAL CHANGE</td>
<td>0</td>
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<tr>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
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<td>24 hours total.</td>
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<td>Intended for the disabled student to improve memory and understanding of changes in society to increase awareness of the impact of these changes and increase social interaction.</td>
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<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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<tr>
<td>ALCB 408Y</td>
<td>ART APPRECIATION</td>
<td>0</td>
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<tr>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<tr>
<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
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<td>24 hours total.</td>
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<td>Intended for the disabled student to acquire an appreciation of artists and their work. Provides opportunity for social interaction and intellectual stimulation made possible through shared knowledge of artists and their work.</td>
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<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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<tr>
<td>ALCB 409Y</td>
<td>MUSIC APPRECIATION</td>
<td>0</td>
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<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
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<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to acquire appreciation of composers and their work. Emphasis on identification and recall of auditory input.</td>
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<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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<tr>
<td>ALCB 413Y</td>
<td>RELAXATION TECHNIQUES</td>
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<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Unlimited Repeatability.</td>
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<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to acquire information about and develop techniques for achieving relaxation by releasing mental and physical tension.</td>
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<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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<tr>
<td>ALCB 414Y</td>
<td>STRESS MANAGEMENT</td>
<td>0</td>
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<tr>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
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<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to recognize stress symptoms and become aware of signals which cause triggers in stress. Learn stress management skills from passive to active take-charge role.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
<td></td>
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<tr>
<td>ALCB 421Y</td>
<td>AROUND THE WORLD IN TRAVEL STUDY</td>
<td>0</td>
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<tr>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<tr>
<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
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<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to recall personal travel. Focuses on the discussion of geography, history, religions and arts of other cultures to increase knowledge and social interaction, and improve memory retention.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
<td></td>
</tr>
<tr>
<td>ALCB 431Y</td>
<td>ANALYSIS OF CURRENT EVENTS</td>
<td>0</td>
</tr>
<tr>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
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<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to acquire information about current events with an emphasis on comparing and contrasting current with past events to enhance memory retention and self-esteem.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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<tr>
<td>ALCB 451Y</td>
<td>DRAWING &amp; PAINTING</td>
<td>0</td>
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<tr>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<td></td>
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<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
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<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to improve expressive capability, manipulatory skills and eye-hand coordination, increase self-esteem and increase social interaction through the use of painting, drawing and sketching materials, tools, and techniques to create two-dimensional art in a group setting.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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<tr>
<td>ALCB 456Y</td>
<td>CRAFTS</td>
<td>0</td>
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<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Unlimited Repeatability.</td>
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<tr>
<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to improve expressive capability, manipulatory skills and eye-hand coordination, increase self-esteem and increase social interaction through the use of seasonal, leather, wood, fabric, yarn and paper materials to create crafts projects in a group setting.</td>
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<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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<tr>
<td>ALCB 462Y</td>
<td>VERBAL EXPRESSION</td>
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<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
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<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to teach techniques in verbal communication specifically to improve family, social and work-related situations.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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<tr>
<td>ALCB 463Y</td>
<td>CREATIVE WRITING</td>
<td>0</td>
</tr>
<tr>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
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<td></td>
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<tr>
<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
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<tr>
<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to present written autobiographical, fictional and non-fictional experiences which are shared orally for both appreciation and constructive input to enhance self-esteem, memory retention and writing ability.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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<tr>
<td>ALCB 465Y</td>
<td>CREATIVE SELF-EXPRESSION</td>
<td>0</td>
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<tr>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course</td>
<td></td>
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<td>Grade Type: Non-credit course that receives no grade</td>
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<tr>
<td>Unlimited Repeatability.</td>
<td></td>
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<tr>
<td>24 hours total.</td>
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<tr>
<td>Intended for the disabled student to provide directed experiences in self-expression. Emphasis on various activities designed to enhance physical and cognitive creative expression and enable the student to develop independent creative activities through adapted drama, music, art and writing.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: None</td>
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</table>
**ADAPTIVE LEARNING: COMPUTER ACCESS CENTER**

**ALCA 201**  COMPUTER ACCESS EVALUATION  1 Unit
Degree & Credit Status: Non-degree-applicable credit course
Advisory: Not open to students with credit in ALCA 101.
Grade Type: Pass/No Pass Only
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Survey course designed to provide students with an overview of current assistive technologies including Dragon Naturally Speaking, Kurzweil, Inspiration, etc. Course content includes an evaluation of technology needs, tutorials, and hands-on practice for various software and hardware.
FHGE: Non-GE Applicable  Transferable: None

**ADAPTIVE LEARNING: LEARNING DISABILITY**

**ALLD 206**  PARAGRAPH REMEDIATION  2 Units
Degree & Credit Status: Non-degree-applicable credit course
Corequisites: ENGL 110 and 209.
Grade Type: Pass/No Pass Only
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
A paragraph development class with an emphasis on writing concisely with correct grammar. Provides support and instruction to students in remedial English courses who struggle with basic reading and writing skills. Focus on research, reading comprehension, content development, and writing structure.
FHGE: Non-GE Applicable  Transferable: None

**ALLD 210**  UNDERSTANDING LEARNING DIFFERENCES  3 Units
Degree & Credit Status: Non-degree-applicable credit course
Advisory: Not open to students with credit in ALLD 601.
Grade Type: Pass/No Pass Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Focuses on learning differences, learning theory and strategies related to specific learning challenges. Creation of individual learning portfolio to identify learning style, strengths and weaknesses. Covers understanding of learning differences, methods of retention and output of knowledge. Cognitive and achievement testing will be provided as appropriate to identify student individual learning profile.
FHGE: Non-GE Applicable  Transferable: None

**ALLD 402**  ACADEMIC SKILLS  0 Units
Degree & Credit Status: Non-degree-applicable basic skills course
Grade Type: Non-credit course that receives no grade
Not Repeatable.
24 hours total.
An open-entry, open-exit course for students with disabilities who seek academic support in general. Instruction and review of: time management, self-advocacy, short and long term planning, note-taking and study skills, organization, test preparation, reduction of test anxiety, utilization of assistive technology.
FHGE: Non-GE Applicable  Transferable: None

**ADAPTIVE LEARNING: TRANSITION TO WORK**

**ALTW 201**  BASIC ENGLISH FOR STUDENTS WITH LEARNING DIFFERENCES  2 Units
Degree & Credit Status: Non-degree-applicable credit course
Advisory: Not open to students with credit in ALTW 105.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
This basic English class emphasis is grammar, sentence and paragraph structure with practical applications related to business, public and/or non-profit settings.
FHGE: Non-GE Applicable  Transferable: None
ALTW 202 BASIC MATH FOR STUDENTS WITH LEARNING DIFFERENCES 2 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Focuses on functional math concepts that include skill building for money handling exchanges, budget planning for independent living, comparison shopping strategies and other related practical math applications.
FHGE: Non-GE Applicable Transferable: None

ALTW 203 LEARNING STYLES & STRATEGIES 2 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
This course enables students to explore and identify their learning styles, values, personality traits and develop a personal profile that helps them with their vocational choices.
FHGE: Non-GE Applicable Transferable: None

ALTW 204 COMMUNICATION SKILLS IN THE WORKPLACE 2 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Focuses on proper communication skills in written business formats, verbal presentations, and appropriate body language styles in order for students to be able to communicate effectively in competitive employment settings.
FHGE: Non-GE Applicable Transferable: None

ALTW 206 BEGINNING WORD PROCESSING 3 Units
Degree & Credit Status: Non-degree-applicable credit course
Advisory: Not open to students with credit in ALTW 112.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Introduction to the word processing computer application, Microsoft Office Suites and Google Chrome. Beginning level word processing to be used in private, nonprofit and government work environments.
FHGE: Non-GE Applicable Transferable: None

ALTW 207 RESOURCES IN THE COMMUNITY FOR STUDENTS WITH LEARNING DIFFERENCES 2 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Overview of community and campus resources for students with disabilities.
FHGE: Non-GE Applicable Transferable: None

ALTW 208 JOB TRAINING/INTERNSHIP FOR STUDENTS WITH LEARNING DIFFERENCES 1.5 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4.5 hours laboratory. (54 hours total per quarter.)
Practical skills needed for successful employment. Emphasis on on-the-job training experiences, to learn workplace standards. Preparation for work-readiness through hands-on work duties on and off campus settings. Discussion and evaluation of work performance.
FHGE: Non-GE Applicable Transferable: None

ALTW 209 SOCIAL SKILLS 2 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Focuses on interviewing techniques and the special problems faced by people with disabilities when seeking employment. Interview preparation, mock interviews, behavioral interviewing techniques will be explored through lectures and role-play and feedback. Constructive feedback will be given to students in order to enhance their interviewing techniques.
FHGE: Non-GE Applicable Transferable: None

ALTW 210 INTRODUCTION TO EXCEL 3 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Introduction to spreadsheet computer application. Beginning level of spreadsheet database tool, emphasis on spreadsheets, charts and tables.
FHGE: Non-GE Applicable Transferable: None

ALTW 211 JOB SEARCH SKILLS: THE RESUME 2 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Focuses on successful resume writing techniques including the creation and completion of a resume. In addition, understanding online electronic processes for submission of resume, hidden job market, and types of resumes. Development of a master application that will be used in the job search processes.
FHGE: Non-GE Applicable Transferable: None

ALTW 212 WORK ATTITUDES & BEHAVIORS ON THE JOB 2 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Will assist the student to develop appropriate work behavior and attitudes. Learn conflict management and pro-active problem solving skills in an entry level job environment.
FHGE: Non-GE Applicable Transferable: None

ALTW 213 RESOURCES IN THE COMMUNITY FOR STUDENTS WITH LEARNING DIFFERENCES 2 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Overview of community and campus resources for students with disabilities.
FHGE: Non-GE Applicable Transferable: None

ALTW 214 JOB SEARCH SKILLS: INTERVIEW PREPARATION 2 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Focuses on interviewing techniques and the special problems faced by people with disabilities when seeking employment. Interview preparation, mock interviews, behavioral interviewing techniques will be explored through lectures and role-play and feedback. Constructive feedback will be given to students in order to enhance their interviewing techniques.
FHGE: Non-GE Applicable Transferable: None

ALTW 215 DISABILITY & THE LAW 3 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Understanding basic citizens’ rights and responsibilities. Emphasis on the Americans with Disabilities Act (ADA), Rehabilitation Act of 1973, IDEA, and other laws related to people with disabilities. Understanding the meaning of accommodation and applying it to work and school settings.
FHGE: Non-GE Applicable Transferable: None
ALTW 217 INTERMEDIATE COMPUTER APPLICATIONS FOR STUDENTS WITH LEARNING DIFFERENCES

Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Students will learn to combine Microsoft Word, Microsoft Excel and Microsoft PowerPoint to produce intermediate documents to be used in academic, non-profit, government and/or business environment.
FHGE: Non-GE Applicable Transferable: None

ALTW 218 CURRENT EVENTS FOR STUDENTS WITH LEARNING DIFFERENCES

Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Exploration of global, national and community topics through a variety of media sources. Discussion on the pro’s and con’s of different news media formats and perspectives.
FHGE: Non-GE Applicable Transferable: None

ALTW 219 USING THE INTERNET

Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
This is a hands-on introduction to the use of internet tools such as Google Docs, Cloud applications, Apps, Internet research, and social media applications. Students will learn how to appropriately utilize information technology in order to engage in online social interaction. This course will give students basic instruction regarding how to use different social media and communication applications (e.g., set up profiles, interact with others, learn the capabilities of each application, etc.). In addition, students will learn the norms of appropriate, responsible behavior in regard to the use of the applications. This course will teach students specific skills for maintaining appropriate behavior and being safe while using the internet and social media applications, such as Facebook, Instagram, Twitter, Reddit, Snapchat, YouTube, LinkedIn, and email.
FHGE: Non-GE Applicable Transferable: None

ALTW 223 INDEPENDENT LIVING SKILLS: FINANCIAL LITERACY

Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Basic banking and personal saving concepts with emphasis placed upon establishing credit and responsible credit card use, personal budgeting, connecting employment choices to financial outcomes, and making responsible financial choices. Intended for students with disabilities enrolled in the Transition to Work Program.
FHGE: Non-GE Applicable Transferable: None

ALTW 229 HEALTHY RELATIONSHIPS

Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Development of understanding of personal boundaries and making positive choices in relationships. Emphasis placed upon increasing self-esteem, developing appropriate personal rules for intimate, personal, professional and general relationships, and recognizing and effectively handling personal safety issues. Provides students with disabilities tools to effectively communicate and make good relationship choices. Intended for students with disabilities enrolled in the Transition to Work program.
FHGE: Non-GE Applicable Transferable: None

ALTW 230 INTRODUCTION TO VOCATIONAL MICRO-BUSINESS

Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade Only
May be taken three times for credit.
2 hours lecture. (24 hours total per quarter.)
FHGE: Non-GE Applicable Transferable: None

ALTW 231 INTRODUCTION TO PRESENTATION SKILLS

Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade Only
May be taken three times for credit.
2 hours lecture. (24 hours total per quarter.)
Introduction to appropriate skills and behaviors necessary for making successful presentations, for students with disabilities. Students will learn how to create and present a project or a speech.
FHGE: Non-GE Applicable Transferable: None

ALTW 232 SOCIAL MEDIA & DIGITAL CITIZENSHIP

Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade Only
May be taken three times for credit.
2 hours lecture. (24 hours total per quarter.)
Students will learn how to appropriately utilize information technology in order to engage in online social interaction. This course will give students basic instruction regarding how to use different social media and communication applications (e.g., set up profiles, interact with others, learn the capabilities of each application, etc.). In addition, students will learn the norms of appropriate, responsible behavior in regard to the use of the applications. This course will teach students specific skills for maintaining appropriate behavior and being safe while using the internet and social media applications, such as Facebook, Instagram, Twitter, Reddit, Snapchat, YouTube, LinkedIn, and email.
FHGE: Non-GE Applicable Transferable: None

ALTW 233 HEALTHY LIVING FOR STUDENTS WITH LEARNING DIFFERENCES

Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Focuses on assisting individuals with learning differences in leading healthy lifestyles, in regards to both physical and mental health. Aspects of physical health that will be explored include: physical activity and exercise, nutrition, hygiene, sleep, disease prevention, obesity, substance abuse, reproductive health, and safety. Aspects of mental health that will be covered include: stress management, relaxation techniques, negative thinking traps, optimism, and resilience. The course will address strategies for helping students with learning differences make healthy life choices on their path to becoming more independent adults.
FHGE: Non-GE Applicable Transferable: None
AHS 50B INTERPROFESSIONAL PATIENT COMPETENCIES .5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
6 hours total per quarter.
This is the second of three courses focusing on interprofessional education (IPE). This course will include an overview on the pediatric patient, the geriatric patient, communication issues in health care settings and understanding the skills and scope of practice of other health care professionals with a focus on patient safety and teamwork. Enrollment is limited to students accepted in an allied health program.
FHGE: Non-GE Applicable Transferable: CSU

AHS 50C INTERPROFESSIONAL COMPETENCIES FOR COLLABORATIVE PRACTICE .5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
6 hours total per quarter.
This is the third of three courses focusing on interprofessional education (IPE). This course will include an overview of the health care team, professional communication issues in health care settings and values and ethics for interprofessional practice. Enrollment is limited to students accepted in an allied health program.
FHGE: Non-GE Applicable Transferable: CSU

AHS 51 HEALTH CAREERS EXPLORATION 1.5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1.5 hours lecture. (18 hours total per quarter.)
This course focuses on assessment and career research in the development of a health care career plan. Careers include, but are not limited to: EMT, Paramedic/Fire Science, Nursing, Pharmacology Technology, Dental Hygiene, Dental Assisting, Respiratory Therapy and Radiologic Technology. Emphasis is on interest, personality testing, values clarification, career information, research skills, individual skills assessment, decision making, communication, teamwork, inter-professional education and goal setting specifically in the health care field. The course also covers health care job trends, education and licensure requirements.
FHGE: Non-GE Applicable Transferable: CSU

AHS 52 MEDICAL TERMINOLOGY 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to medical terminology as used in the health professions. Provides opportunities for practical application of medical terminology and further development of skills in analyzing components of medical terms and building a medical vocabulary applicable to specialties of medicine. Course content includes anatomical and physiological terminology; basic structure, prefixes, suffixes; combining forms; abbreviations, clinical procedures, laboratory and diagnostic tests related to each body system.
FHGE: Non-GE Applicable Transferable: CSU

AHS 55 COMMUNITY HEALTH PROMOTION 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course requires clinical field experiences that may take place outside of the U.S.; the cost of travel is borne by the student.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
Introduction to community approaches to disease prevention and health promotion with an emphasis on a holistic approach, risk and resilience, social capital, and social change to promote community health in communities with limited access to care. Students have the opportunity to shadow licensed doctors, dentists and other health care professionals in urgent and preventive medical/dental services. Intended for students pursuing an allied health or medical career.
FHGE: Non-GE Applicable Transferable: CSU

ALTW 430 VOCATIONAL MICRO-BUSINESS 0 Units
PRACTICUM
Degree & Credit Status: Non-degree-applicable non-credit course
Prerequisite: ALTW 230.
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
Hands-on practice of running a micro-business, including implementation of sales techniques, effective customer services, communication and professional behavior. Training and instruction in simple accounting and use of spreadsheets to organize day-to-day financial data, such as cash flow. Manage and operate a micro-business.
FHGE: Non-GE Applicable Transferable: None

ALTW 431 PUBLIC TRANSIT SKILLS 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
Introduction and practice of essential travel skills, such as reading bus/train schedules and maps, paying fares, boarding and exiting public transit, making transfers between the same or different modes of public transportation. Students will learn how to make judgments in various travel disruptions, use appropriate social and communication skills.
FHGE: Non-GE Applicable Transferable: None

ALLIED HEALTH SCIENCES

Biological and Health Sciences
650.949.7249 foothill.edu/biology/

AHS 50A INTRODUCTION TO ALLIED HEALTH PROGRAMS 1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: ENGL 1A, 1AH, or 1S & 1T; MATH 105.
Advisory: Not open to students with credit in AHS 50.
Grade Type: Letter Grade Only
Not Repeatable.
1.5 hours lecture. (18 hours total per quarter.)
Introduction to Foothill College allied health programs for the incoming first year student. Overview of HIPAA and patient privacy, Academic Honor Code, student rights and responsibilities, strategies for student success, stress and time management, professionalism and ethical behavior in the health care environment and individual program policies and procedures for allied health students. Introduction to peer reviewed literature in the professional discipline, analyzing a research study, writing a full research essay of a peer reviewed research study and understanding of the data analysis of the research. Intended for students who have applied and been accepted into allied health programs; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

AHS 50B INTERPROFESSIONAL PATIENT COMPETENCIES .5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
6 hours total per quarter.
This is the second of three courses focusing on interprofessional education (IPE). This course will include an overview on the pediatric patient, the geriatric patient, communication issues in health care settings and understanding the skills and scope of practice of other health care professionals with a focus on patient safety and teamwork. Enrollment is limited to students accepted in an allied health program.
FHGE: Non-GE Applicable Transferable: CSU
AHS 60A  CARDIOLOGY FOR ALLIED HEALTH  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in RSPT 60A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Electrocardiogram and rhythm recognition. Invasive and non-invasive hemodynamic monitoring; cardiac diagnostic and therapeutic procedures; and fluid balance.
FHGE: Non-GE Applicable  Transferable: CSU

AHS 60C  ADVANCED CARDIAC LIFE SUPPORT  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in RSPT 60B.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Preparation for Advanced Cardiac Life Support Certification for health care providers who will be directing or participating in the management of cardiopulmonary arrest or other cardiovascular emergencies. Students will practice skills through active participation in simulated cases in order to enhance skills associated with diagnosis and treatment of cardiopulmonary arrest, acute arrhythmia, stroke, and acute coronary syndromes (ACS).
FHGE: Non-GE Applicable  Transferable: CSU

AHS 60D  PEDIATRIC ADVANCED LIFE SUPPORT (AHA PALS)  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Students must successfully pass the written exam, and successfully perform the skills to earn PALS certification.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
The American Heart Association Pediatric Advanced Life Support (PALS) course is based on science evidence from the 2015 AHA Guidelines for CPR and ECC. The goal of the PALS course is to aid the pediatric healthcare provider in developing the knowledge and skills necessary to efficiently and effectively manage critically ill infants and children, resulting in improved outcomes. Skills taught include recognition and treatment of infants and children at risk for cardiopulmonary arrest; the systematic approach to pediatric assessment; effective respiratory management; defibrillation and synchronized cardioversion; intraosseous access and fluid bolus administration; and effective resuscitation team dynamics.
FHGE: Non-GE Applicable  Transferable: CSU

AHS 60E  AHA FIRST AID/CPR FOR THE NON-HEALTHCARE PROVIDER  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Unlimited Repeatability.
1 hour lecture, 1 hour laboratory. (24 hours total per quarter.)
Designed primarily for the workplace first aid provider; this course follows current medical and educational guidelines and meets federal and state OSHA regulatory requirements for training employees in adult CPR and first aid. Designed for those with an occupational requirement to be trained in first aid and who may be expected to provide care until professional help arrives, as well as any individual who wishes to be trained in what to do in the event of an emergency until professional help arrives. Not intended to be used as a prerequisite for individuals entering the EMT program.
FHGE: Non-GE Applicable  Transferable: CSU

AHS 60F  PREHOSPITAL TRAUMA LIFE SUPPORT (PHTLS)  2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Prehospital Trauma Life Support (PHTLS) is recognized around the world as the leading continuing education program for prehospital emergency trauma care. PHTLS courses improve the quality of trauma care in your area and decrease mortality. The program is based on a prehospital trauma care philosophy, stressing the treatment of the multi-system trauma patient as a unique entity with specific needs. This may require an approach to the trauma patient that varies from traditional treatment modalities. PHTLS promotes critical thinking as the foundation for providing quality care for the trauma patient. This course is scenario-based, with lectures and interactive skills station components to enhance knowledge and further develop the critical thinking skills required to effectively treat trauma patients in the field.
FHGE: Non-GE Applicable  Transferable: CSU

ANTHROPOLOGY

Business and Social Sciences
650.949.7322  foothill.edu/anthropology/

ANTH 1H  HONORS INTRODUCTION TO PHYSICAL ANTHROPOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ANTH 1.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey and investigation of the basic processes of evolution and their application to the development of modern humans. Impact of natural selection and genetics on development of new species. Evolutionary processes behind the physical and behavioral development of primates. History of the human lineage by reconstructing the fossil record, using investigations by paleoanthropologists, geologists, biologists, and archaeologists. Relationship between contemporary biology and behavior, facilitating an understanding of the effect of them upon future humankind.
FHGE: Natural Sciences  Transferable: CSU/UC

ANTH 1  INTRODUCTION TO PHYSICAL ANTHROPOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in ANTH 1H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey and investigation of the basic processes of evolution and their application to the development of modern humans. Impact of natural selection and genetics on development of new species. Evolutionary processes behind the physical and behavioral development of primates. History of the human lineage by reconstructing the fossil record, using investigations by paleoanthropologists, geologists, biologists, and archaeologists. Relationship between contemporary biology and behavior, facilitating an understanding of the effect of them upon future humankind.
FHGE: Natural Sciences  Transferable: CSU/UC
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Prerequisite/Advisory</th>
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<tr>
<td>ANTH 1H</td>
<td>HONORS PHYSICAL ANTHROPOLOGY LABORATORY</td>
<td>1 Unit</td>
<td>Degree-applicable credit course</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Corequisite: Completion of or concurrent enrollment in ANTH 1H.</td>
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<td>Advisory: Not open to students with credit in ANTH 1L.</td>
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<td>Grade Type: Letter Grade Only</td>
<td>Grade Type: Letter Grade Only</td>
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<td>Not Repeatable.</td>
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<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<td>Introductory laboratory course focusing on scientific methodology to explore/experiment with topics from Anthropology lecture sections.</td>
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<td>Topics include Mendelian genetics, population genetics, human variability, forensics, medical anthropology, epidemiology, hominin dietary patterns, non-human primates, primate dental and skeletal anatomy, fossil hominids, chronometric dating, environmental challenges to hominids, environmental impact of hominin behavior, general methodologies utilized in physical anthropological research, and the general study of hominids as bio-culturally adapting animals. As an honors course, it is a full thematic seminar with advanced teaching methods focusing on major writing, reading, and research assignments, student class lectures, group discussions and interactions. Material covered will be enhanced and research techniques and methodologies explored in greater depth than in the non-honors version of this course.</td>
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<td>FHGE: Natural Sciences</td>
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<td>ANTH 1L</td>
<td>PHYSICAL ANTHROPOLOGY LABORATORY</td>
<td>1 Unit</td>
<td>Degree-applicable credit course</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Corequisite: Completion of or concurrent enrollment in ANTH 1H.</td>
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<td>Advisory: Not open to students with credit in ANTH 1L.</td>
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<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<td>Introductory laboratory course focusing on scientific methodology to explore/experiment with topics from anthropology lecture sections.</td>
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<td>Topics include Mendelian genetics, population genetics, human variability, forensics, medical anthropology, epidemiology, hominin dietary patterns, non-human primates, primate dental and skeletal anatomy, fossil hominids, chronometric dating, environmental challenges to hominids, environmental impact of hominin behavior, general methodologies utilized in physical anthropological research, and the general study of hominids as bio-culturally adapting animals. As an honors course, it is a full thematic seminar with advanced teaching methods focusing on major writing, reading, and research assignments, student class lectures, group discussions and interactions. Material covered will be enhanced and research techniques and methodologies explored in greater depth than in the non-honors version of this course.</td>
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<td>ANTH 2A</td>
<td>CULTURAL ANTHROPOLOGY</td>
<td>4 Units</td>
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<td>4 hours lecture. (48 hours total per quarter.)</td>
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<td>Introduction to the study of human culture and the concepts, theories, and methods used in the comparative study of sociocultural systems, with an emphasis on understanding and appreciating human diversity. Topics include a cross-cultural exploration of: subsistence strategies; social, political and economic organization; language and communication; marriage and kinship; religion; gender; ethnicity and race; social inequality; culture change; and the effects of colonialism and globalization. Focus is made on the application of anthropological perspectives to contemporary social issues.</td>
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<td>ANTH 2B</td>
<td>PATTERNS OF CULTURE</td>
<td>4 Units</td>
<td>Degree-applicable credit course</td>
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<td>ANTH 3</td>
<td>WORLD PREHISTORY: THE RISE &amp; FALL OF EARLY CIVILIZATIONS</td>
<td>4 Units</td>
<td>Degree-applicable credit course</td>
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<td>Survey of world prehistory as reconstructed by archaeologists. Human culture history from Stone Age beginnings to establishment and collapse of the world’s first major civilizations. Covers societies from Asia and Africa to Europe and the Americas. Introduction to archaeological methods and interpretation. First use of tools, social complexity, urbanization, domestication of plants and animals, and the rise and fall of civilizations.</td>
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<td>ANTH 4</td>
<td>FIRST PEOPLES OF NORTH AMERICA</td>
<td>4 Units</td>
<td>Degree-applicable credit course</td>
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<td>Survey of Native American societies and cultures, north of Mexico, from a cultural perspective. Includes social organization, economics, technology and belief systems. Historic and current relationship between the federal government and the Native Americans. Contemporary issues of Native American communities.</td>
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ANTH 5  MAGIC, SCIENCE & RELIGION  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)

An introduction to the anthropological study of religion and belief systems. This course is a cross-cultural exploration into the ways humans around the world and through time have conceptualized their relationship between their natural and social worlds and the supernatural, beginning with prehistoric times and concluding with modern day society and the contemporary world. Cross-cultural study of the beliefs about the nature of reality, spirituality, death, magic, science and healing.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

ANTH 6  PEOPLES OF AFRICA  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)

An anthropological survey of the peoples of Africa. Issues addressed include: the colonial and Cold War experience and legacy in Africa; popular Western (mis)perceptions and portrayals of Africa and Africans; patterns of social organization, family, and kinship; political organization; economic systems; current political and economic conditions and ties to the global economy; conceptual systems; health and disease; popular culture; art and music; and social change. The course draws upon classic and contemporary anthropological research, research from other disciplines, ethnographies, and literature by African writers. A case study approach is used for some topics allowing in-depth analysis of particular African societies.

FHGE: Non-GE Applicable  Transferable: CSU/UC

ANTH 8  INTRODUCTION TO ARCHAEOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)

Introduction to the historical development, theory and techniques of archaeological research and fieldwork. Development of comparative approach to the study of ancient cultures. Focus on cultural resource management, survey and selection of field sites, dating, excavation, artifact classification, interpretation of data and written analysis.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

ANTH 12  APPLIED ANTHROPOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)

Applied anthropology focuses on the use of anthropological theories, perspectives and methods in real world, contemporary contexts of practice or problem-solving. This course, an introduction to the "5th field" of anthropology, provides students with theories, perspectives and skills that will help them recognize, more deeply understand and solve problems affecting local communities in this country and abroad, which have arisen as a result of culture change, modernization and globalization. Major areas of study will include development anthropology, the use of technology in field settings, anthropology and health care, anthropology and advocacy, anthropology and law, tourism and cultural heritage, organizational and business anthropology, and land and cultural resource management.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

ANTH 13  INTRODUCTION TO FORENSIC ANTHROPOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)

Introduction to the application of anthropology as a science to the medical-legal process and its emphasis on the identification of human skeletal remains. Uses the scientific methodology to cover cell biology, population genetics, natural selection, human variation, evolution, basic human osteology and odontology, assessment of age at time of death, sex, ancestry, trauma analysis, pathology, crime scene analysis, animal scavenging, and identification procedures. Focuses on the varying applications of science in the modern world in which forensic anthropology is utilized ranging from crime scene investigation, missing person identification, human rights, and humanitarian investigations.

FHGE: Natural Sciences  Transferable: CSU/UC

ANTH 13L  FORENSIC ANTHROPOLOGY LABORATORY  1 Unit
Degree & Credit Status: Degree-applicable credit course
Corequisite: Completion of or concurrent enrollment in ANTH 13.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)

Introductory laboratory course focusing on scientific methodology to reinforce topics from Forensic Anthropology lecture sections using hands-on technical training. Focuses on the relationship between biology and forensic anthropology, general anthropological method and theory, and specifically in this case on the medico-legal process utilized in forensics with an emphasis on the identification of human skeletal remains and evidence description. Contains exercises in identifying basic human osteology/odontology elements and morphological features. Will include standardized procedures for the assessment of age at time of death, sex, ancestry, trauma analysis, pathology, physical characteristics including height and weight, crime scene analysis, animal scavenging, and identification procedures. Focuses on how laboratory conclusions are utilized in courtroom proceedings during expert witness testimony.

FHGE: Natural Sciences  Transferable: CSU/UC

ANTH 14  LINGUISTIC ANTHROPOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)

Introduces students to the anthropological study of language and non-verbal human communication. Using a cross-cultural perspective, students will examine the relationship between culture and the ways in which humans communicate. Topics include language structure, acquisition, diversity, and change.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC
ANTH 15  MEDICAL ANTHROPOLOGY: METHODS & PRACTICE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in ANTH 50.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to medical anthropology, a subfield of the discipline of anthropology that seeks to understand and highlight how health, illness and healing practices are culturally constructed and mediated. Students will investigate global, cross-cultural and local issues related to health, sickness, healing, epidemiology, aging and dying from an applied and biocultural perspective, using anthropological theory and ethnographic fieldwork methods. Students will be exposed to diverse cultural interpretations of health, sickness and healing, the importance of viewing medical systems as social systems, understanding the socio-cultural context of medical decision making and therapy management, the principles of cultural competency, and the recurrent and ongoing problems of socioeconomic inequality and ecological disruptions that have an impact upon the differential distribution and treatment of human diseases.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

ANTH 16L  BASIC ARCHAEOLOGY  1 Unit LABORATORY
Degree & Credit Status: Degree-applicable credit course
Advisory: UC transferability is limited to 3 units maximum for ANTH 16L, 17L & 18L; not open to students with credit in ANTH 8L.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
An introduction to basic laboratory methods and techniques of archaeology using the scientific method, including cataloging, care and analysis of artifacts, bone recognition, and archaeological excavation. This course will introduce concepts within an anthropological research framework. In addition to gaining expertise in laboratory research, students will examine, discuss, critique and write about the techniques, tools, laboratory terminology and processes of laboratory research at a basic level. Students will use archaeology vocabulary in verbal and written class reports.
FHGE: Non-GE Applicable  Transferable: CSU/UC

ANTH 17L  INTERMEDIATE ARCHAEOLOGY  2 Units LABORATORY
Degree & Credit Status: Degree-applicable credit course
Advisory: UC transferability is limited to 3 units maximum for ANTH 16L, 17L & 18L; not open to students with credit in ANTH 8L.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
An introduction to intermediate level laboratory methods and techniques of archaeology using the scientific method, including cataloging, care and analysis of artifacts, bone recognition, and archaeological excavation. This course will further develop concepts within an anthropological research framework, focusing on guided laboratory analysis of active archaeological research projects. Students develop expertise in detailed laboratory research and write about the techniques, tools, laboratory terminology and processes of laboratory research at an intermediate level. Students will use archaeology vocabulary in verbal and written class reports based on active research projects.
FHGE: Non-GE Applicable  Transferable: CSU/UC

ANTH 20  NATIVE PEOPLES OF CALIFORNIA  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Study of the many cultures of the different native inhabitants of California from the prehistoric period to the present time. Covers an introduction to the diversity and complexity of aboriginal California. Includes the environmental adaptation, material culture, social structure, ideology, and response to change. Examines the impact of the other Native, European, Asian and African groups on those cultures as well as the contributions of Native Californians to the cultures of the Americas.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

ANTH 22  THE AZTEC, MAYA, INCA & THEIR PREDECESSORS: CIVILIZATIONS OF THE AMERICAS  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey of the origin, spread, and decline of pre-Columbian civilizations in Central and South America with a focus on the Maya, Inca and Aztec. Applies understandings of archaeology and cultural anthropology to examine the dynamic economic, social, political, cultural, and religious systems of Mesoamerica and South America over time. Covers the colonization process by the Spanish and current day indigenous issues in Mesoamerica and South America.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC
ANTH 55   APPLIED CULTURAL ANTHROPOLOGY FIELD METHODS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Applied anthropology focuses on the use of anthropological theories, perspectives and data-gathering methods in real-world contexts of practice or problem-solving. This 1-unit course provides students with the opportunity to learn and apply field methods from the sub-discipline of applied cultural anthropology to problems found in their own communities. Students will learn how to identify a research topic, write a proposal and project plan with specific milestones and deliverables, carry out research with the most appropriate field methodologies of applied research, and produce a “product” at the end of the course. Projects for this course will be in one of the major arenas of applied cultural anthropology, including: design anthropology, development anthropology, anthropology and health care, anthropology and social work, anthropology and education, organizational and business anthropology. Students will utilize field methodologies unique to applied cultural anthropology.
FHGE: Non-GE Applicable Transferable: CSU

ANTH 56   APPLIED PHYSICAL ANTHROPOLOGY FIELD METHODS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Applied anthropology focuses on the use of anthropological theories, perspectives and data-gathering methods in real-world contexts of practice or problem-solving. This 1-unit course provides students with the opportunity to learn and apply field methods from the sub-discipline of applied physical anthropology to problems found in their own communities. Students will learn how to identify a research topic, write a proposal and project plan with specific milestones and deliverables, carry out research with the most appropriate field methodologies of applied research, and produce a “product” at the end of the course. Projects for this course will be in one of the major arenas of applied physical anthropology, including: forensic anthropology, development anthropology, anthropological theory, and osteology, design anthropology (human engineering), medical anthropology, and environmental anthropology. Students will utilize field methodologies unique to applied physical anthropology.
FHGE: Non-GE Applicable Transferable: CSU

ANTH 57   APPLIED ARCHAEOLOGY FIELD METHODS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Applied anthropology focuses on the use of anthropological theories, perspectives and data-gathering methods in real-world contexts of practice or problem-solving. This 1-unit course provides students with the opportunity to learn and apply field methods from the sub-discipline of applied archaeology to problems found in their own communities. Students will learn how to identify a research topic, write a proposal and project plan with specific milestones and deliverables, carry out research with the most appropriate field methodologies of applied research, and produce a “product” at the end of the course. Projects for this course will be in one of the major arenas of applied archaeology, including: cultural resource management (CRM), historic preservation, museum studies, preservation law and ethics, and students will utilize field methodologies unique to applied archaeology.
FHGE: Non-GE Applicable Transferable: CSU

ANTH 67B   CULTURES OF THE WORLD: BELIZE 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Investigation of a specific culture of the world, in this case Belize, in which the student group is conducting research. Covers archaeological and historical past of these cultures. Explores the diversity within each culture. Uncovers the dynamics of power relationships within the culture in ancient and modern contexts. Examines politics, economics, religion, and social development in the culture area.
FHGE: Non-GE Applicable Transferable: CSU

ANTH 67C   CULTURES OF THE WORLD: BRITISH ISLES 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course is part of a series to explore the diverse cultural heritage of the world using an anthropological perspective. In this case students cover the British Isles starting with the archaeological and historical past. Using anthropological methodology students explore the diversity within each culture, and then analyze the relationships within a worldwide context. As well, students are expected to synthesize the dynamics of power relationships within the culture in ancient and modern contexts by evaluating politics, economics, religion, and social development in the culture area. The course is designed to work with students either on an international program or intending to participate in a program of study on the British Isles.
FHGE: Non-GE Applicable Transferable: CSU

ANTH 70R   INDEPENDENT STUDY IN ANTHROPOLOGY 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Anthropology beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable Transferable: CSU
APPCRENTICESHIP: CULINARY ARTS

Apprenticeship
650.949.7208 foothill.edu/apprenticeships/

APCA 100  CULINARY SAFETY & SANITATION  2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Culinary Arts Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will study first aid, food safety management and other safety issues related to food service operations. They will learn how to assess the threat of contamination, prevention measures, and alternative responses to food safety and other concerns, such as allergens. The course also presents other material critical to safety in the modern day professional kitchen, including Hazard Analysis Critical Control Point (HACCP) and active managerial control. A case study in the form of food safety inspection and audit of the cafeteria and culinary classroom kitchen will give students a chance to see the difficulties that face food service operators every day.
FHGE: Non-GE Applicable  Transferable: None

APCA 101  BASIC CULINARY THEORY  2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Culinary Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will be exposed to food chemistry and the vocabulary necessary to succeed in an industrial food service setting. Topics will range from baking to cold kitchen preparation to various understandings of dry and moist cooking techniques. In addition, students will learn product identification and protocols in food handling and preferred cooking methods for meats, poultry, fruits, vegetables, starches, legumes, fish and shellfish.
FHGE: Non-GE Applicable  Transferable: None

APCA 102  CULINARY MATH, MEASUREMENTS & CALCULATIONS  2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Culinary Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
One of the most important courses in culinary arts, this course instills methods to measure ingredients (volume, weight, time and temperature), convert from U.S. to Metric systems of measurement, calculate portion cost and recipe cost. Also covers pricing strategies and instills an understanding of order guides and invoices. Students will work with ratios and fractions with key ratios applied to achieve an edible result without a recipe. Students will learn to detect flaws in a recipe if the ratio is not correct. Students will produce a portfolio of their own recipe calculations.
FHGE: Non-GE Applicable  Transferable: None

APCA 104  BASIC COOKING TECHNIQUES  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Culinary Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
120 hours total: 30 hours lecture, 90 hours laboratory.
Covers basic cooking. Students will make stocks, soups, sauces; prepare vegetables, st freshes, salads; fabricate and cook various cuts of meats and poultry. Highlights basic cooking techniques, such as sauteing, roasting, poaching, braising and frying, while following industrial recipes.
FHGE: Non-GE Applicable  Transferable: None

APCA 105  CULINARY MENU DEVELOPMENT  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Culinary Arts Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours lecture total.
Students develop their own menus for breakfast, lunch, and dinner; develop a beverage program; and cost out the menu items. Students design pricing strategies and submit as a portfolio.
FHGE: Non-GE Applicable  Transferable: None

APCA 106  SUSTAINABILITY IN FOOD SERVICE OPERATIONS  2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Culinary Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Covers the principles of sustainability, including issues of animal welfare, nutrition, climate change, farm to table; other issues that impact people and the environment, such as water consumption, wage and supply chain ethics, and the reduction of our environmental footprint. The future of food and technology emerge as topics of discussion, and case studies feature menu innovation, actual operations, and a field trip to a sustainable restaurant or foodservice operation.
FHGE: Non-GE Applicable  Transferable: None

APPELTICESHIP: ELECTRICIAN

Apprenticeship
650.949.7208 foothill.edu/apprenticeships/

APEL 112  RESIDENTIAL ELECTRICAL AIR CONDITIONING & REFRIGERATION; TELEPHONE SYSTEMS  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 112.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
75 hours total: 24 hours lecture, 51 hours laboratory.
An introduction to air conditioning and refrigeration systems used in residential applications; telephone systems. Students will study the wiring, circuitry and controls in these systems. Continued study of the National Electrical Code as it relates to current and load calculations. Review of A/C and D/C theory.
FHGE: Non-GE Applicable  Transferable: None
APEL 113 RESIDENTIAL ELECTRICAL SYSTEMS: BASIC SECURITY, SOLAR POWER, HOME AUTOMATION & LIFE SAFETY 3 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 113.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
96 hours total: 24 hours lecture, 72 hours laboratory.
A study of residential electrical systems and installation practices. Home automation, including home theater. Fundamentals of solar power systems and recommended practices. Life safety systems. Expanded study of the National Electrical Code as it relates to communication circuits, and water applications, such as pools and fountains.
FHGE: Non-GE Applicable Transferable: None

APELL 120 ORIENTATION TO THE ELECTRICAL TRADE 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program; student is a registered State indentured apprentice.
Advisory: Not open to students with credit in APRT 120.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
96 hours total: 24 hours lecture, 72 hours laboratory.
Orientation to the commercial/industrial electrical industry with an introduction to electrical theory, tools, materials, wiring methods, and job skills. Review of mathematics as applied in the electrical construction trades.
FHGE: Non-GE Applicable Transferable: None

APELL 120A ORIENTATION TO THE ELECTRICAL TRADE, CPR & FIRST AID 5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the San Francisco Inside Wireman Electrical Program.
Advisory: Not open to students with credit in APELL 120.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
120 hours total: 36 hours lecture, 84 hours laboratory.
Orientation to the commercial/industrial electrical industry with an introduction to electrical theory, tools, materials, wiring methods, and job skills. Review of mathematics as applied in the electrical construction trades. Industry applications, hands-on labs. CPR, first aid, job orientation topics: sexual harassment and drug abuse.
FHGE: Non-GE Applicable Transferable: None

APELL 121 ELECTRON THEORY; BASIC BLUEPRINT READING; DC THEORY; NATIONAL ELECTRICAL CODE INTRODUCTION 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APELL 121.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
96 hours total: 24 hours lecture, 72 hours laboratory.
Introduction to the National Electrical Code (NEC), DC theory, principles of magnetism and electromagnetism, basic blueprint reading.
FHGE: Non-GE Applicable Transferable: None

APELL 121A ELECTRON THEORY; AC & DC ELECTRICAL THEORY; NEC INTRODUCTION; PARALLEL & COMBINATION CIRCUITS 5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the San Francisco Inside Wireman Electrical Program.
Advisory: Not open to students with credit in APELL 121.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
96 hours total: 24 hours lecture, 72 hours laboratory.
Introduction to the National Electrical Code (NEC), applied codeology toward the National Electrical Code. Discuss and demonstrate basic AC and DC electrical generation. Ohm’s Law, understand DC parallel and combination circuits. Basic three-phase AC.
FHGE: Non-GE Applicable Transferable: None

APELL 122 CODEOLOGY; TEST EQUIPMENT; PIPE BENDING; BLUEPRINTS 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APELL 122.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
96 hours total: 24 hours lecture, 72 hours laboratory.
Study of the National Electrical Code, AC Theory and basic fundamentals of using blueprints.
FHGE: Non-GE Applicable Transferable: None

APELL 122A CODEOLOGY; NEC CODE; TEST EQUIPMENT; PIPE BENDING; BLUEPRINTS 5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the San Francisco Inside Wireman Electrical Program.
Advisory: Not open to students with credit in APELL 122.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
120 hours total: 36 hours lecture, 84 hours laboratory.
Study of the National Electrical Code, applied codeology, and basic fundamentals of using blueprints. Instruction on usage of test equipment and pipe bending tools.
FHGE: Non-GE Applicable Transferable: None

APELL 123 AC THEORY; TRANSFORMERS; INTERMEDIATE NATIONAL ELECTRICAL CODE 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APELL 123.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
96 hours total: 24 hours lecture, 72 hours laboratory.
Study of AC theory, transformer fundamental design and function. Expanded study of the National Electrical Code. Students will learn the fundamentals of AC theory and how it relates to transformer design. They will also learn to understand how National Electrical codes are applied for the safe and proper installation transformers.
FHGE: Non-GE Applicable Transferable: None
APEL 123A  GROUNDING & BONDING, OVERCURRENT PROTECTION, CODE & PRACTICES, BLUEPRINTS, CODEOLOGY SKILLS 5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the San Francisco Inside Wireman Electrical Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

120 hours total: 36 hours lecture, 84 hours laboratory.

This course will cover grounding and bonding of transformers, fire alarm systems and industrial blueprint reading. Focus will be on learning the electrical code and overcurrent protective devices (OCPD). Apprentices will demonstrate their ability to read residential, commercial, and industrial blueprints and to perform circuit layouts. This course meets the requirements of electrical safety standards for 3rd year apprentices who are pursuing their certificate.

FHGE: Non-GE Applicable  Transferable: None

APEL 124  DC/AC THEORY REVIEW; ELECTRONICS; INDUSTRIAL BLUEPRINTS 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to student with credit in APRT 124.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

96 hours total: 24 hours lecture, 72 hours laboratory.

Review of DC/AC theory. The study of overcurrent protection and the implementation of safe work practices.

FHGE: Non-GE Applicable  Transferable: None

APEL 124A  DC/AC THEORY REVIEW; ELECTRONICS; INDUSTRIAL BLUEPRINTS; TRANSFORMERS, GROUNDING; ELECTRICAL SYSTEMS 5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the San Francisco Inside Wireman Electrical Program.
Advisory: Not open to students with credit in APRT 124.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

120 hours total: 36 hours lecture, 84 hours laboratory.

Review of AC/DC theory. Study of electronics principles and applications, and industrial blueprint reading. Transformer installation, grounding and electrical systems.

FHGE: Non-GE Applicable  Transferable: None

APEL 125  NEC GROUNDING; OVERCURRENT PROTECTION; TRANSFORMER CONNECTIONS 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 125.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

96 hours total: 24 hours lecture, 72 hours laboratory.

This course will cover grounding and bonding of transformers, fire alarm systems and industrial blueprint reading.

FHGE: Non-GE Applicable  Transferable: None

APEL 125A  FIRE ALARM SYSTEMS, EMERGENCY COMMUNICATION SYSTEMS, PUBLIC EMERGENCY SYSTEMS 5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

120 hours total: 36 hours lecture, 84 hours laboratory.

Introduction to fire alarm systems and their components. Student will be required to demonstrate knowledge in alarm system interfaces, safety control functions, advanced detection topics, emergency communications system, public emergency systems and supervising stations. Comprehension of residential fire alarm systems, telephone and security basics is covered in detail. This course meets the requirements of electrical safety standards for 3rd year apprentices who are pursuing their certificate.

FHGE: Non-GE Applicable  Transferable: None

APEL 126  MOTORS; MOTOR CONTROL; LIGHTING PROTECTION 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 126.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

96 hours total: 24 hours lecture, 72 hours laboratory.

A study of different motor types and controls with emphasis on protecting the motors and the buildings they are in with lightning protection systems. Reading and interpretation of schematic drawings.

FHGE: Non-GE Applicable  Transferable: None

APEL 127  DIGITAL ELECTRONICS; MOTOR SPEED CONTROL; ADVANCED NATIONAL ELECTRICAL CODE 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 127.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

96 hours total: 24 hours lecture, 72 hours laboratory.

The use of Boolean algebra in the development of logic circuits and logic control. Introduction to the principles of motor speed control. Review of AC theory. Expanded coverage of the National Electrical Code.

FHGE: Non-GE Applicable  Transferable: None

APEL 128  PROGRAMMABLE LOGIC CONTROLLERS; LOW-VOLTAGE SYSTEMS & HIGH-VOLTAGE SYSTEMS 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 128.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

96 hours total: 24 hours lecture, 72 hours laboratory.

Introduction to programmable controllers, alarm systems, telephone wiring, instrumentation, and high voltage testing.

FHGE: Non-GE Applicable  Transferable: None
APEL 129  NATIONAL ELECTRICAL CODE REVIEW
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 129.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
96 hours total: 24 hours lecture, 72 hours laboratory.
Review of the National Electrical Code and preparation for the California State Certification Test. Jobsite management, system testing, fiber optics; heating, air conditioning, and refrigeration systems.
FHGE: Non-GE Applicable  Transferable: None

APEL 135  RESIDENTIAL ELECTRICAL ORIENTATION; SAFETY & CODE INTRODUCTION
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 135.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
75 hours total: 24 hours lecture, 51 hours laboratory.
Orientation to the electrical industry with a residential emphasis; on-the-job safety; identification of tools and materials; review of basic math. Introduction to the National Electrical Code.
FHGE: Non-GE Applicable  Transferable: None

APEL 136  RESIDENTIAL ELECTRICAL D/C THEORY; BLUEPRINT READING
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to student with credit in APRT 136.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
75 hours total: 24 hours lecture, 51 hours laboratory.
Introduction to D/C electrical theory and circuitry as it relates to residential installations; conductors used in electrical wiring. Course also introduces blueprint reading, including architectural and engineering symbols and scale.
FHGE: Non-GE Applicable  Transferable: None

APEL 137  RESIDENTIAL ELECTRICAL A/C THEORY & CIRCUITY
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 137.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
75 hours total: 24 hours lecture, 51 hours laboratory.
Introduction to A/C electrical theory and circuitry as they relate to residential installations; job costing and industrial standards. Further study of the National Electrical Code focusing on codeology. Expanded development of blueprint reading skills.
FHGE: Non-GE Applicable  Transferable: None

APEL 138  RESIDENTIAL WIRING LAYOUT & INSTALLATION
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Electrical Apprenticeship Program.
Advisory: Not open to students with credit in APRT 138.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
75 hours total: 24 hours lecture, 51 hours laboratory.
A study of electrical wiring methods, circuitry, and conduit installation in residential applications. Students will also practice wiring layout for residential housing. Continued study of the National Electrical Code as it relates to circuits, grounding and cable assemblies.
FHGE: Non-GE Applicable  Transferable: None

APIW 100  INTRODUCTION TO IRONWORKING
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.
Advisory: Not open to students with credit in APPR 170.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
56 hours total: 48 hours lecture, 8 hours laboratory.
Overview of Ironworker’s skill and knowledge areas needed to make the newly indentured apprentice a safe and productive worker from the earliest period of job dispatch. Includes a review of basic math principles. OSHA safety.
FHGE: Non-GE Applicable  Transferable: None

APIW 101  MIXED BASE
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.
Advisory: Not open to students with credit in APPR 171.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Introduction to blueprint reading and continuation of basic trade mathematics.
FHGE: Non-GE Applicable  Transferable: None

APIW 102  REINFORCING IRON I
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.
Advisory: Not open to students with credit in APPR 172.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Instruction in reinforced concrete principles, applications, and processes. Study of the forces at work when iron and concrete are combined as a building material.
FHGE: Non-GE Applicable  Transferable: None
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>APIW 103</td>
<td>RIGGING I</td>
<td>2</td>
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<tr>
<td>APIW 104</td>
<td>IRONWORKER HISTORY &amp; TRADE SCIENCE</td>
<td>2</td>
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<tr>
<td>APIW 105</td>
<td>WELDING I</td>
<td>2</td>
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<tr>
<td>APIW 106</td>
<td>STRUCTURAL I</td>
<td>2</td>
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<tr>
<td>APIW 107</td>
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<tr>
<td>APIW 109</td>
<td>POST-TENSIONING I</td>
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<tr>
<td>APIW 110</td>
<td>ARCHITECTURAL I</td>
<td>2</td>
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<tr>
<td>APIW 111</td>
<td>ARCHITECTURAL II</td>
<td>2</td>
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</tbody>
</table>

Degree & Credit Status: Degree-applicable credit course

Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.

Advisory: Not open to students with credit in APPR 173.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

40 hours total: 24 hours lecture, 16 hours laboratory.

Introduction to rigging operations such as wire rope, chains, slings, cranes, helicopters, ladders and scaffolds used in the ironworkers' trade. Rigging safety, knot recognition and strength identification, and knot application to rigging are included.

FHGE: Non-GE Applicable  Transferable: None
APPIW 112 LEAD HAZARD TRAINING 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.
Advisory: Not open to students with credit in APRT 185.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
A study of the history of lead and the health hazards of lead exposure in the ironworking trade. Teaches those elements of knowledge, coordination and skill needed for safety, stressing the use of proper protective equipment and work methods, OSHA regulations, sampling methods and legal rights of workers. First Aid/CPR training, American Red Cross.
FHGE: Non-GE Applicable Transferable: None

APPIW 113 SMALL STRUCTURE ERECTION 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.
Advisory: Not open to students with credit in APPR 188.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
An introduction to small structure erection of prefab and precast concrete buildings. Study of charts, tables, blueprints, anchors, framing and fasteners. Particular emphasis given to the rigging, handling and installing of precast concrete members.
FHGE: Non-GE Applicable Transferable: None

APPIW 114 WELDING III 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Advanced welding. A further study of welding safety and welding concepts for construction job sites. Welding processes, shielded metal-arc, flux-core arc welding, gas shielded-arc, and TIG welding, symbols, and certification qualifications are included.
FHGE: Non-GE Applicable Transferable: None

APPIW 115 CRANES 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Provides the Iron Worker student with training in how to erect and dismantle mobile cranes, describe principles of crane operation, identify quadrants of crane operation, read crane load charts, identify crane capacity factors, plan pre-lift planning and set up, describe mobile crane operating procedures, and erect, climb, dismantle and transport tower cranes.
FHGE: Non-GE Applicable Transferable: None

APPIW 116 FOREMAN TRAINING 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Prepares the student with the roles and responsibilities of the Foreman. In addition, students learn how to create an effective work team, communicate effectively, apply problem-solving skills, document and maintain records, maintain labor-management relations, plan and schedule work, implement a safety program and ensure the quality of work.
FHGE: Non-GE Applicable Transferable: None

APPIW 117 GENERAL SAFETY/OSHA 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Ironworkers Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 30 hours lecture, 10 hours laboratory.
Provides the ironworker student with thirty (30) hours of training required by the Occupational Health and Safety Act (OSHA). This course applies toward the 30-hour construction industry course completion card. The COMET portion of the course requires a minimum of eight (8) classroom hours and provides apprentices with useful information about the challenges facing the Ironworker union, as well as thought-provoking questions and suggestions for how to navigate the world of construction in the 21st century.
FHGE: Non-GE Applicable Transferable: None

APIW 118 INTRODUCTION TO RESIDENTIAL PLUMBING, SAFETY & TOOLS 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Residential Plumbing Apprenticeship Program.
Advisory: Current employment in the pipe trades industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
An introduction to basic residential plumbing standards, employment information and procedures, history and heritage of plumbing, organization and construction safety. Necessary trade skills include cutting and threading, use and care of tools, and soldering and brazing are taught along with construction terminology and plumbing definitions.
FHGE: Non-GE Applicable Transferable: None

APPT 121 RESIDENTIAL DRAINAGE SYSTEMS 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Residential Plumbing Apprenticeship Program.
Advisory: Current employment in the pipe trades industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Overview of the installation and design criteria of residential drainage, waste and vent systems, with emphasis and study of the applied theory, design and installation criteria. Includes application of local codes.
FHGE: Non-GE Applicable Transferable: None
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>APPT 123</td>
<td>RESIDENTIAL GAS &amp; WATER INSTALLATIONS</td>
<td>2.5</td>
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<tr>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Residential Plumbing Apprenticeship Program.</td>
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<td>Advisory: Current employment in the pipe trades industry.</td>
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<td>Not Repeatable.</td>
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<td>54 hours total: 18 hours lecture, 36 hours laboratory.</td>
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<td></td>
<td>Overview of the installation and design criteria of residential hot and cold water, and fuel gas installations. Includes piping materials and hanger systems, material handling and environmental concerns.</td>
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<td>FHGE: Non-GE Applicable  Transferable: None</td>
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<tr>
<td>APPT 124</td>
<td>MATHEMATICS FOR RESIDENTIAL PLUMBING</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Residential Plumbing Apprenticeship Program.</td>
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<td>Advisory: Current employment in the pipe trades industry; not open to students with credit in APRT 195.</td>
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<td>Not Repeatable.</td>
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<td>54 hours total: 18 hours lecture, 36 hours laboratory.</td>
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<td>A review of basic math concepts and operation, followed by instruction in pipe measurements, formulas, and off-set calculations. Use of common electronic calculators will be included.</td>
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<td>FHGE: Non-GE Applicable  Transferable: None</td>
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<tr>
<td>APPT 125</td>
<td>RESIDENTIAL BLUEPRINT READING</td>
<td>4.5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Residential Plumbing Apprenticeship Program.</td>
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<td>Advisory: Current employment in the pipe trades industry.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<td>108 hours total: 30 hours lecture, 78 hours laboratory.</td>
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<td>Familiarize with the various blueprints, drawings and sketches used in residential construction. Plan types, details and symbols will be covered, as well as common construction terms and methods. Working from a set of building plans, students will create isometric drawings of plumbing systems.</td>
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<td>FHGE: Non-GE Applicable  Transferable: None</td>
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<tr>
<td>APPT 126</td>
<td>RESIDENTIAL PIPING LAYOUT &amp; INSTALLATION; RESIDENTIAL FIXTURES</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Residential Plumbing Apprenticeship Program.</td>
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<td>Advisory: Current employment in the pipe trades industry.</td>
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<td>Not Repeatable.</td>
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<td>108 hours total: 30 hours lecture, 78 hours laboratory.</td>
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<td>Introduction to the various methods of inserting and sleeving in residential construction. Students will practice the layout and installation of residential copper pipe and tube systems. Hands-on practice of plumbing fixture installation, service and repair will be provided.</td>
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<td>FHGE: Non-GE Applicable  Transferable: None</td>
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<tr>
<td>APPT 127</td>
<td>RESIDENTIAL PLUMBING CODE</td>
<td>2.5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Residential Plumbing Apprenticeship Program.</td>
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<td>Advisory: Current employment in the pipe trades industry.</td>
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<td>54 hours total: 18 hours lecture, 36 hours laboratory.</td>
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<td>A comprehensive overview of the Plumbing Code. Students will examine each chapter of the code book and practice proper application through worksheets, system design, and sizing exercises.</td>
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<td>FHGE: Non-GE Applicable  Transferable: None</td>
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<tr>
<td>APPT 128</td>
<td>RESIDENTIAL GAS INSTALLATIONS; SERVICE WORK</td>
<td>2.5</td>
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<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Residential Plumbing Apprenticeship Program.</td>
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<td>Advisory: Current employment in the pipe trades industry; not open to students with credit in APRT 183.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<td>54 hours total: 18 hours lecture, 36 hours laboratory.</td>
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<td>Introduction to safe practices for working in excavations and confined spaces. Instructions and hands-on practice will be provided in underground polyethylene gas installations and residential service work.</td>
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<td>FHGE: Non-GE Applicable  Transferable: None</td>
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<tr>
<td>APPT 129</td>
<td>SPECIAL TOPICS</td>
<td>2.5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing/Steamfitting &amp; Pipefitting/Air Conditioning Refrigeration Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APPR 109.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>54 hours total: 18 hours lecture, 36 hours laboratory.</td>
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<td>FHGE: Non-GE Applicable  Transferable: None</td>
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<td>APPT 130</td>
<td>REVIEW &amp; TURNOUT</td>
<td>2.5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing/Steamfitting &amp; Pipefitting/Air Conditioning Refrigeration Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APPR 130.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>54 hours total: 18 hours lecture, 36 hours laboratory.</td>
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<td>A comprehensive overview of the entire plumbing, steamfitting, and refrigeration courses of instruction and preparation for completion examinations. Presentation of the latest current code and safety information. Planning and performing hands on piping projects. Perform hands on troubleshooting projects for air conditioning systems.</td>
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<td>FHGE: Non-GE Applicable  Transferable: None</td>
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</tbody>
</table>
APPT 131  P-101 BASIC PLUMBING 5 Units
SKILLS
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 110.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
118 hours total: 40 hours lecture, 78 hours laboratory.
Orientation to the apprenticeship program, JATC policies and procedures. UA history and heritage will also be covered. Safety training is introduced, with instruction in general construction safety. This is followed up with necessary trade skills, including use and care of tools, pipe and tube installations, and soldering and brazing.
FHGE: Non-GE Applicable  Transferable: None

APPT 132  P-102 APPLIED & RELATED THEORY 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 102.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Review of basic math before introducing new concepts including pipe measuring and calculation of simple offsets. Students will learn fundamental scientific principles related to the installation and design of basic plumbing systems. Installation and design of fuel gas piping and drainage systems will also be studied.
FHGE: Non-GE Applicable  Transferable: None

APPT 133  P-201 BEGINNING DRAWING & DESIGN 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 112.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Drawing fundamentals to instruction in isometric drawing. Students learn the proper design and sizing of simple waste, water and gas systems. An in-depth study of water supply systems will also be included. Students will also learn to read and interpret simple residential building plans, designing and coordinating plumbing systems within the structure.
FHGE: Non-GE Applicable  Transferable: None

APPT 134A  P-202A RIGGING; LAYOUT 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 113.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Instruction in identification and tying various types of knots, study hands on safe practices of rigging and hoisting piping materials. Instruction in the use of a transit, builder’s level, laser level and other measuring instruments in the layout and installation of piping systems. Establish the invert elevations and coordination of piping systems by means of profile drawings.
FHGE: Non-GE Applicable  Transferable: None

APPT 134B  INDUSTRIAL SAFETY 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing/Steamfitting & Pipefitting Technology Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Study in the requirements for emergency response to and handling of hazardous materials. Laws of chemical hazards, electrical hazards, personal protective equipment, and confined spaces, monitoring equipment, and Federal and Cal-OSHA Standards for the construction industry will be covered.
FHGE: Non-GE Applicable  Transferable: None

APPT 135A  P-301A PLUMBING FIXTURES 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 116.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Instruction in plumbing fixtures and appliances. Names and design features of various plumbing fixtures will be discussed. Proper installation, maintenance and repair of fixtures and appliances will be studied.
FHGE: Non-GE Applicable  Transferable: None

APPT 135B  P-301B PLUMBING CODES 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 119.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Learn and demonstrate the procedures for coordinating the testing and inspection of plumbing systems and applicable codes that a plumbing systems test must meet. Knowledge of general regulations, including accessibility and ADA requirements will also be discussed.
FHGE: Non-GE Applicable  Transferable: None

APPT 136  P-302 ADVANCED TRADE MATH FOR PLUMBERS 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 118.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Extensive use of piping formulas to solve typical piping layout calculations. Students will calculate compound offsets and accurately determine center to center and end to end piping measurements for plumbing systems.
FHGE: Non-GE Applicable  Transferable: None

APPT 137A  P-401A WATER SYSTEMS 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Development and operation of domestic and industrial water supply and distribution systems for installation and operation. An overview of water sources, methods used to plan and configure supply, purification and distribution systems, for operation and maintenance.
FHGE: Non-GE Applicable  Transferable: None
APPT 137B P-401B APPLIED WELDING 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 117.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Instruction and practice in oxy-fuel cutting, oxy-fuel welding and arc welding of steel plate and pipe. Safety and accuracy in measuring, lay-out and torch handling is emphasized.
FHGE: Non-GE Applicable Transferable: None

APPT 138 P-402 ADVANCED DRAWING 4.5 Units & BLUEPRINT READING
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 114.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Interpretation of orthographic and isometric drawings and building plans that make up working drawings for the proper installation of piping systems. Standard graphic symbols used to represent piping, fittings and valves on construction drawings will be covered, as well as various construction methods and materials, specifications and submittals. Hands-on exercises in the creation and coordination of shop drawings.
FHGE: Non-GE Applicable Transferable: None

APPT 139A PROCESS PIPING 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing/Steamfitting & Pipefitting Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPT 139.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Process piping and high purity water piping systems (HPW), including covering hazards associated with these installations. Water treatment and clean steam parameters for the pharmaceutical and biotech manufacturing industries will also be presented. Pneumatic control systems will be covered, including the identification and installation of regulators and valves, pneumatic tubing and use of air compressors and refrigerated air-dryers. Control systems will also be discussed. Hands-on experience with tube bending.
FHGE: Non-GE Applicable Transferable: None

APPT 139B MEDICAL GAS INSTALLATIONS 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing/Steamfitting & Pipefitting Technology Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Installation procedures of medical gas and vacuum systems. Apprentices will learn about station outlets/inlets, manufactured assemblies and pressure/vacuum indicators. Brazing requirements will be described and proper techniques will be demonstrated. Practice brazing techniques in order to prepare for the brazing qualification exam.
FHGE: Non-GE Applicable Transferable: None

APPT 141 SF 101 BASIC STEAMFITTING SKILLS 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Steamfitting & Pipefitting Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 123.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
118 hours total: 40 hours lecture, 78 hours laboratory.
Orientation to the apprenticeship program, JATC policies and procedures. UA history and heritage will also be covered. Safety training is introduced, with instruction in general construction safety. This is followed up with necessary trade skills, including use and care of tools, pipe and tube installations and soldering and brazing.
FHGE: Non-GE Applicable Transferable: None

APPT 142 SF 102 RELATED MATH, DRAWING & RIGGING 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Steamfitting & Pipefitting Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 124.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Review of basic math before introducing new concepts, including pipe measuring and calculation of simple offsets. Students will then learn drawing fundamentals before moving to instruction in isometric drawing. Instruction in identification and tying various types of knots, study hands-on safe practices of rigging and hoisting piping materials.
FHGE: Non-GE Applicable Transferable: None

APPT 143 SF 201 STEAMFITTER CUTTING & WELDING 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Steamfitting & Pipefitting Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 122.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Instruction and practice in oxy-fuel cutting, oxy-fuel welding and arc welding of steel plate and pipe. Safety and accuracy in measuring, lay-out and torch handling is emphasized.
FHGE: Non-GE Applicable Transferable: None

APPT 144A SF 202A SCIENCE; ELECTRICITY & AIR CONDITIONING 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Steamfitting & Pipefitting Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 126.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
Foundation for subsequent courses through instruction in the fundamentals of science, electrical theory and circuitry, and the principles of refrigeration and air conditioning.
FHGE: Non-GE Applicable Transferable: None
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>APPT 145</td>
<td>SF 301 ADVANCED TRADE MATH FOR STEAMFITTERS</td>
<td>4.5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Steamfitting &amp; Pipefitting Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APPR 121.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<td>108 hours total: 30 hours lecture, 78 hours laboratory.</td>
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<td>Extensive use of piping formulas to solve typical piping layout calculations. Students will calculate compound offsets and accurately determine center to center and end to end piping measurements.</td>
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<td>FHGE: Non-GE Applicable Transferable: None</td>
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<tr>
<td>APPT 146</td>
<td>SF 302 STEAM TECHNOLOGY</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Steamfitting &amp; Pipefitting Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APPR 127.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>108 hours total: 30 hours lecture, 78 hours laboratory.</td>
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<td>Basic properties and concepts of steam. Instruction on steam traps, installation techniques and general operation. One-pipe systems will be compared to two-pipe systems. Importance of steam piping, proper pipe sizing, expansion joints and connections. Heat transfer devices and steam boilers will also be discussed with focus on types and proper installation and connection methods.</td>
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<td>FHGE: Non-GE Applicable Transferable: None</td>
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<td>APPT 147A</td>
<td>SF 401A HYDRONIC SYSTEMS</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Steamfitting &amp; Pipefitting Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APPR 125.</td>
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<td>Not Repeatable.</td>
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<td>54 hours total: 18 hours lecture, 36 hours laboratory.</td>
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<td>Basic principles of various hydronic systems, including equipment selection, pipe sizing, piping connections and proper installation methods. Start, test and balance procedures.</td>
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<td>FHGE: Non-GE Applicable Transferable: None</td>
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<td>APPT 147B</td>
<td>SF 401B INDUSTRIAL RIGGING</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Steamfitting &amp; Pipefitting Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APRT 180.</td>
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<td>54 hours total: 18 hours lecture, 36 hours laboratory.</td>
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<td>Appropriate knots required for specific rigging operations. Rigging safety protocol will be reviewed, which will include health and safety legislation and the responsibilities of specified rigging personnel. Crane signals and will practice rigging skills both through observation and hands-on activities.</td>
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<td>FHGE: Non-GE Applicable Transferable: None</td>
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<td>APPT 148</td>
<td>SF 402 ADVANCED DRAWING &amp; BLUEPRINT READING</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Steamfitting &amp; Pipefitting Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APPR 120.</td>
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<td>Not Repeatable.</td>
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<td>108 hours total: 30 hours lecture, 78 hours laboratory.</td>
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<td>Study of technical drawings, piping drawings, building plans, specifications and submittals. Interpretation of three view, plan view, elevation view and isometric drawings will be discussed. Hands-on exercises in the process of creating coordinated drawings beginning with sketching principles, calculating and drawing, and finishing with drawing coordination and system design.</td>
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<td>FHGE: Non-GE Applicable Transferable: None</td>
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<tr>
<td>APPT 151</td>
<td>RF 101 BASIC REFRAFRGERATION SERVICE SKILLS</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Air Conditioning &amp; Refrigeration Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APPR 131.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<td>118 hours total: 40 hours lecture, 78 hours laboratory.</td>
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<td>Orientation to the apprenticeship program, JATC policies and procedures. UA history and heritage will also be covered. Safety training is introduced, with instruction in general construction safety and hazardous materials awareness. Necessary trade skills, including pipe and tube installations and soldering and brazing.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<tr>
<td>APPT 152</td>
<td>RF 102 BASIC ELECTRICITY &amp; REFRIGERATION</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Air Conditioning &amp; Refrigeration Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APPR 132.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<td>108 hours total: 30 hours lecture, 78 hours laboratory.</td>
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<td>A review of laws pertaining to basic electrical theory and their application to mechanical equipment service. Refrigeration theory and application of the vapor compression cycle will also be covered.</td>
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<td>FHGE: Non-GE Applicable Transferable: None</td>
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<tr>
<td>APPT 153</td>
<td>RF 201 MECHANICAL SYSTEMS</td>
<td>4.5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Air Conditioning &amp; Refrigeration Technology Apprenticeship Program.</td>
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<td>Advisory: Not open to students with credit in APPR 133C.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<td>108 hours total: 30 hours lecture, 78 hours laboratory.</td>
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<td>Basic and advanced refrigeration concepts. Extensive study of the design, assembly, and operation of compression systems. Will include liquid and vapor control, metering devices, system components, and piping design.</td>
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<td>FHGE: Non-GE Applicable Transferable: None</td>
<td></td>
</tr>
</tbody>
</table>
APPT 154  RF 202 ELECTRIC CONTROLS 4.5 Units
FUNDAMENTALS
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Air Conditioning & Refrigeration Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 107.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Fundamentals of electrical controls related to HVAC and refrigeration equipment. Students will assemble and wire actual electrical components and controls.
FHGE: Non-GE Applicable  Transferable: None

APPT 155  RF 301 ADVANCED ELECTRIC CONTROLS 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Air Conditioning & Refrigeration Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 140.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Advanced principles of electric controls used for mechanical equipment in the HVAC industry. Study control diagrams and further develop skills and service procedures used to troubleshoot electrical problems in HVACR equipment.
FHGE: Non-GE Applicable  Transferable: None

APPT 156  RF 302 HVAC PNEUMATIC & ELECTRONIC CONTROL SYSTEMS 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Air Conditioning & Refrigeration Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 135.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Introduction to HVAC fundamentals, energy sources and control system principals. Focus on pneumatic, electrical, electronic and building automation control systems and components.
FHGE: Non-GE Applicable  Transferable: None

APPT 157  RF 401 INDUSTRIAL REFRIGERATION & AIR-CONDITIONING SERVICE 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Air Conditioning & Refrigeration Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 107.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Servicing industrial refrigeration and air conditioning systems. Alignment and repair of circulating pumps and compressors will be covered, as well as industrial valve applications and repair. Rigging procedures, refrigerant handling and basic office computer skills will also be covered in computer lab.
FHGE: Non-GE Applicable  Transferable: None

APPT 158  RF 402 ADVANCED REFRIGERATION & CHILLERS 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Air Conditioning & Refrigeration Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 108.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Study of the operation and design of positive displacement water chillers and commercial boilers and boiler room equipment. Single-stage and multi-stage centrifugal water chillers will also be covered. Methods of evaluating chiller performance; develop troubleshooting skills.
FHGE: Non-GE Applicable  Transferable: None

APPT 159  RF 501 START, TEST & BALANCE; HVAC SYSTEMS 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Air Conditioning & Refrigeration Technology Apprenticeship Program.
Advisory: Not open to students with credit in APPR 149A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Use of balancing instruments and devices for HVACR systems. The theory and operation of mechanical systems, equipment and testing instruments will be covered. This course stresses the necessity of comprehending the design and intent for the mechanical project, the proper use of testing apparatus and the production of professional reports.
FHGE: Non-GE Applicable  Transferable: None

APPT 161  SAFETY/OSHA/TOOLS/HERITAGE/SERVICE 4 Units
First-year course of the Plumber & Pipefitter Apprenticeship program. Provides students with a working knowledge of plumbing industry materials and standards. Learn use and care of pipe trade tools, practice safety and heritage of the United Association. Also provides OSHA 30 certification.
FHGE: Non-GE Applicable  Transferable: None

APPT 162  MATHEMATICS/SCIENCE FOR THE PLUMBING TRADE 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing & Pipefitting Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
99 hours total: 24 hours lecture, 75 hours laboratory.
First-year course of the Plumber & Pipefitter Apprenticeship program. Provides students with a working knowledge of plumbing industry materials and standards. Learn use and care of pipe trade tools, practice safety and heritage of the United Association. Also provides OSHA 30 certification.
FHGE: Non-GE Applicable  Transferable: None
APPT 172  REFRIGERATION SCIENCE  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Refrigeration & Air Conditioning Mechanical Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
102 hours total: 30 hours lecture, 72 hours laboratory.
First-year course of the Refrigeration & Air Conditioning Apprenticeship program. This course provides students with a working knowledge of Basic Refrigeration, Refrigeration Equipment, and Equipment Maintenance.
FHGE: Non-GE Applicable  Transferable: None

APPT 173  BASIC ELECTRICITY FOR THE HVAC SERVICE TRADE  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Refrigeration & Air Conditioning Mechanical Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
99 hours total: 24 hours lecture, 75 hours laboratory.
Provides students with a working knowledge of basic electricity, including AC/DC theory and Ohm’s Law. Students will be expected to apply these theories in the laboratory using electronic and testing instruments.
FHGE: Non-GE Applicable  Transferable: None

APPT 174  ADVANCED ELECTRICITY/PNEUMATIC DDC INTRODUCTION  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Refrigeration & Air Conditioning Mechanical Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
102 hours total: 30 hours lecture, 72 hours laboratory.
Second-year course of the Refrigeration & Air Conditioning Apprenticeship program. This course provides students with a working knowledge of Advanced Electricity, Motors, Starter, Circuitry, and Variable Drives.
FHGE: Non-GE Applicable  Transferable: None

APPT 175  CONTROLS I/ELECTRO PNEUMATICS  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Refrigeration & Air Conditioning Mechanical Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
99 hours total: 24 hours lecture, 75 hours laboratory.
Third-year course of the Refrigeration & Air Conditioning Apprenticeship program. This course provides students with a working knowledge of Controls, Control Theory, Timing Circuits, Computerized Control, and Energy Management Systems.
FHGE: Non-GE Applicable  Transferable: None

APPT 176  CONTROLS II ADVANCED PNEUMATICS  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Refrigeration & Air Conditioning Mechanical Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
102 hours total: 30 hours lecture, 72 hours laboratory.
Third year of the Refrigeration & Air Conditioning Apprenticeship program. This course provides students with a working knowledge of advanced control systems, including the uses of 2-Position, Floating and Modulating Controls. Fiber Optics and Direct Digital Controls are introduced.
FHGE: Non-GE Applicable  Transferable: None

APPT 177  START, TEST & BALANCE  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Refrigeration & Air Conditioning Mechanical Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
99 hours total: 24 hours lecture, 75 hours laboratory.
This course provides students with an introduction to Start, Test and Balance for fluid distribution. Ducting, Cooling, Fans, and Air Distribution is covered in the laboratory exercises.
FHGE: Non-GE Applicable  Transferable: None

APPT 178  START, TEST & BALANCE II/ENERGY AUDITING PRACTICES  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Refrigeration & Air Conditioning Mechanical Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
102 hours total: 30 hours lecture, 72 hours laboratory.
Fourth-year course of the Refrigeration & Air Conditioning Apprenticeship program. This course provides students with a working knowledge of Start, Test and Balance for Piping Systems, Pumps, Chillers, Boilers, and Condensers. Students will learn how to audit mechanical equipment to ensure proper energy efficiency techniques are applied.
FHGE: Non-GE Applicable  Transferable: None

APPT 179  CHILLERS/SPECIAL SYSTEMS/HVACR STAR REVIEW  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Refrigeration & Air Conditioning Mechanical Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
99 hours total: 24 hours lecture, 75 hours laboratory.
Provides students with a working knowledge of pipe drafting and blueprint reading for Heating, Ventilation and Air Conditioning (HVAC) Systems. Hands-on activities include applying airsides, watsides and pressure testing systems.
FHGE: Non-GE Applicable  Transferable: None
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Prerequisites</th>
<th>Grade Type</th>
<th>Repeatable?</th>
<th>Transferable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPT 180</td>
<td>HVACR STAR REVIEW &amp; EXIT EXAM</td>
<td>4.5</td>
<td>Degree-applicable credit course</td>
<td>Per California Code of Regulations, this course is limited to students admitted to the Refrigeration &amp; Air Conditioning Mechanical Service Apprenticeship Program.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>APPT 185</td>
<td>PIPE MATERIALS, SAFETY &amp; TOOLS, SOLDERING &amp; BRAZING</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Student is a registered State indentured apprentice.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
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<tr>
<td>APPT 186</td>
<td>MATHEMATICS/RIGGING &amp; SIGNALING</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Per California Code of Regulations, this course is limited to students admitted to the Plumbing &amp; Pipefitting Apprenticeship Program.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>APPT 187</td>
<td>DRAWING INTERPRETATION &amp; PLAN READING/SCIENCE</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Per California Code of Regulations, this course is limited to students admitted to the Plumbing &amp; Pipefitting Apprenticeship Program.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>APPT 188</td>
<td>ADVANCED PLAN READING/CAD</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Per California Code of Regulations, this course is limited to students admitted to the plumbing &amp; pipefitting apprenticeship program.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>APPT 189</td>
<td>WELDING/OXYGEN-ACETYLENE</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Per California Code of Regulations, this course is limited to students admitted to the Plumbing &amp; Pipefitting Apprenticeship Program.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
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<tr>
<td>APPT 189</td>
<td>PIPE FITTING WITH A CALCULATOR</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Per California Code of Regulations, this course is limited to students admitted to the plumbing &amp; pipefitting apprenticeship program.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
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<tr>
<td>APPT 190</td>
<td>PLUMBING CODE APPLICATION, PLUMBING FIXTURES</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Per California Code of Regulations, this course is limited to students admitted to the plumbing &amp; pipefitting apprenticeship program.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>APPT 191</td>
<td>NATURAL GAS INSTALLATION, DRAINAGE</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Per California Code of Regulations, this course is limited to students admitted to the plumbing &amp; pipefitting apprenticeship program.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>APPT 192</td>
<td>WATER SUPPLY, PATTERNS</td>
<td>2</td>
<td>Degree-applicable credit course</td>
<td>Per California Code of Regulations, this course is limited to students admitted to the plumbing &amp; pipefitting apprenticeship program.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>
APPNT 194 MEDICAL GAS, REVIEW EXIT EXAM/FINAL EXAM 1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing & Pipefitting Apprenticeship Program. Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
60 hours total: 5 hours lecture, 55 hours laboratory.
Apprentices learn the installation procedures of medical gas and vacuum systems. This includes medical gas alarms systems, valve stations, inlets, outlets and the complete vacuum system. Brazing techniques will be described and demonstrated.
FHGE: Non-GE Applicable Transferable: None

APPNT 195 HYDRONICS/STEAM SYSTEMS/PUMPS 6.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing & Pipefitting Apprenticeship Program. Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 70 hours lecture, 38 hours laboratory.
Basic concepts of various heating and cooling systems. Equipment selection, pipe sizing, proper installation methods are taught. One-pipe steam systems will be compared to two-pipe systems. Pump selection and application as well as service and repair.
FHGE: Non-GE Applicable Transferable: None

APPNT 196 BASIC ELECTRICITY, ELECTRICAL CONTROLS FOR MECHANIC EQUIPMENT 6.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing & Pipefitting Apprenticeship Program. Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 70 hours lecture, 38 hours laboratory.
Students will be taught basic electrical principals relating to mechanical equipment. Ohm's Law, circuitry, Variable Frequency Drives, as well as troubleshooting techniques will be covered. Students will be able to identify and classify motors and starters.
FHGE: Non-GE Applicable Transferable: None

APPNT 150 JOB SAFETY, OSHA, MATHEMATICS, HERITAGE & RIGGING I 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing/Pipefitting/Refrigeration/HVAC Apprenticeship Program. Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
First course of the Plumber & Pipetitter Apprenticeship Program. Provides students with a working knowledge of mathematics, plumbing industry materials and standards (as they apply to the plumbing industry), use and care of Pipe Trade tools, practice safety, rigging, and a review of Heritage of the United Association.
FHGE: Non-GE Applicable Transferable: None

APPR 151 OXY-ACC, ARC & PLASTIC WELDING, SOLDERING/BRAZING 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing/Pipefitting/Refrigeration/HVAC Apprenticeship Program. Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Second-year course of the Plumber & Pipetitter Apprenticeship Program. The course will provide students with a working knowledge of welding principles, as they relate to oxygen/acetylene burning, brazing, soldering and welding. The Apprentice Plumber is a 5-year certificate program. No certification for welding provided in this course.
FHGE: Non-GE Applicable Transferable: None

APPR 154 GAS & WATER SUPPLY 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Apprenticeship Program. Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Third-year course of the Plumber & Pipetitter Apprenticeship Program. Provides the student with a working knowledge of the supply and treatment of potable water, as well as the design and construction of potable water conveyance systems. This course also offers instruction in the use of natural gas and liquid propane gas systems as they apply to the piping industry.
FHGE: Non-GE Applicable Transferable: None

APPR 157 STEAMFITTING & PIPEFITTING 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Apprenticeship Program. Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Fourth-year course of the Plumbing and Pipefitting Apprenticeship Program. Provides students with a working knowledge of the design, layout, components, specific safety hazards and accepted engineering practices associated with steam heating, hydronic heating and cooling systems.
FHGE: Non-GE Applicable Transferable: None

APPR 160A HVAC TECH, CUSTOMER SERVICE 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Third-year course of the Plumber, Pipetitter & Service Tech Apprenticeship Program regarding HVAC students; includes basic refrigeration, EPA 608 certification, safety and customer service.
FHGE: Non-GE Applicable Transferable: None

APPR 150O MEDICAL GAS, REVIEW EXIT EXAM/FINAL EXAM 1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Plumbing & Pipefitting Apprenticeship Program. Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
60 hours total: 5 hours lecture, 55 hours laboratory.
Apprentices learn the installation procedures of medical gas and vacuum systems. This includes medical gas alarms systems, valve stations, inlets, outlets and the complete vacuum system. Brazing techniques will be described and demonstrated.
FHGE: Non-GE Applicable Transferable: None
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPR 161</td>
<td>AIR CONDITIONING, PNEUMATIC CONTROLS, INSTRUMENTATION &amp; PROCESS CONTROLS</td>
<td>4.5</td>
</tr>
<tr>
<td>APPR 162C</td>
<td>ELECTRONIC CONTROLS, DDC CONTROLS</td>
<td>4.5</td>
</tr>
<tr>
<td>APPR 166</td>
<td>JOB SUPERVISION</td>
<td>4.5</td>
</tr>
<tr>
<td>APPR 167</td>
<td>START, TEST &amp; BALANCE</td>
<td>4.5</td>
</tr>
<tr>
<td>APPR 168</td>
<td>SUPERMARKET REFRIGERATION</td>
<td>4.5</td>
</tr>
<tr>
<td>APPR 169</td>
<td>ELECTRONIC CONTROLS, DDC CONTROLS</td>
<td>4.5</td>
</tr>
<tr>
<td>APPR 183A</td>
<td>BASIC ELECTRICITY FOR SHEET METAL &amp; AIR CONDITIONING SERVICE</td>
<td>4.5</td>
</tr>
<tr>
<td>APPR 183B</td>
<td>ADVANCED ELECTRICITY FOR SHEET METAL &amp; AIR CONDITIONING SERVICE</td>
<td>4.5</td>
</tr>
<tr>
<td>APPR 184A</td>
<td>AIR CONDITIONING; COMMERCIAL SYSTEMS; HEATING (FOURTH-YEAR SERVICE)</td>
<td>4.5</td>
</tr>
<tr>
<td>APPR 184B</td>
<td>COMMERCIAL SYSTEMS; HEAT LOADS; PIPING (FOURTH-YEAR SERVICE)</td>
<td>4.5</td>
</tr>
</tbody>
</table>

**Degree & Credit Status:** Degree-applicable credit course

- **Prerequisite:** Per California Code of Regulations, this course is limited to students admitted to the Plumbing & Pipefitting Apprenticeship Program.

- **Grade Type:** Letter Grade or Pass/No Pass

- **Not Repeatable.**

- **108 hours total:** 30 hours lecture, 78 hours laboratory.

- **Development of basic skills necessary for sheet metal workers to service air conditioning equipment with special emphasis on the basics of electricity and refrigeration principles.**

- **FHGE: Non-GE Applicable**

- **Transferable: None**
APP 185A BASIC REFRIGERATION FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal-Air Conditioning Service Mechanic Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Introduction to the use of refrigeration evacuation service equipment, charging refrigeration systems, and to the use of oxy-acetylene brazing equipment.
FHGE: Non-GE Applicable Transferable: None

APP 185B ADVANCED REFRIGERATION FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal-Air Conditioning Service Mechanic Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Continued development of refrigeration skills with emphasis on the function of compressors, multiphase electric motors and piping systems.
FHGE: Non-GE Applicable Transferable: None

APP 186A PROPERTIES OF AIR DISTRIBUTION FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal-Air Conditioning Service Mechanic Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Introduction to the different properties of air distribution with air volumes, pressures, humidity and temperature; basic air balance procedures.
FHGE: Non-GE Applicable Transferable: None

APP 186B REFRIGERATION THEORY FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal-Air Conditioning Service Mechanic Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Continuing refrigeration theory with emphasis on all the major parts of refrigeration systems. The explanation of the principles and function of the heat pump in a residential application.
FHGE: Non-GE Applicable Transferable: None

APP 188A ORIENTATION; SAFETY & BEGINNING RESIDENTIAL SHEET METAL INSTALLATION (SPECIALIST 1A) 1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Specialist Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 6 hours lecture, 48 hours laboratory.
An introduction to residential and light commercial sheet metal installation, safety, tools, materials, equipment and related industry practices. Emphasis will be on safety and soldering techniques.
FHGE: Non-GE Applicable Transferable: None

APP 188B RESIDENTIAL COMPONENTS IDENTIFICATION & INSTALLATION (SPECIALIST 1B) 1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Specialist Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 6 hours lecture, 48 hours laboratory.
Continued development of concepts and practices already introduced and used in residential and light commercial installations of sheet metal ductwork. Emphasis will be on materials information and skills development.
FHGE: Non-GE Applicable Transferable: None

APP 189A RESIDENTIAL SYSTEMS; DUCT & HVAC SYSTEMS (SPECIALIST 2A) 1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Specialist Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 6 hours lecture, 48 hours laboratory.
A study of typical residential sheet metal flashing, waterproofing, ventilation and HVAC systems. Development of installation techniques.
FHGE: Non-GE Applicable Transferable: None

APP 189B PLANS & ARCHITECTURAL APPLICATIONS FOR RESIDENTIAL SHEET METAL (SPECIALIST 2B) 1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Specialist Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 6 hours lecture, 48 hours laboratory.
An advanced study of industry standards, values and requirements in residential sheet metal work, including architectural applications of metal roofing, complex flashing, gutter and downspouts. Use of plans for coordinating installations. Mathematics review and further development of soldering skills.
FHGE: Non-GE Applicable Transferable: None
APR 106A SHEET METAL CONTROL SYSTEMS (FIFTH-YEAR SERVICE)
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal-Air Conditioning Service Mechanic Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Development of skills necessary for sheet metal workers to service air conditioning equipment with emphasis on computerized building management, zone control and variable air volume systems.
FHGE: Non-GE Applicable Transferable: None

APR 106B ENERGY MANAGEMENT & CUSTOMER SERVICE (FIFTH-YEAR SERVICE)
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal-Air Conditioning Service Mechanic Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Development of skills necessary for sheet metal workers to service air conditioning equipment with emphasis on computerized building management, zone control and variable air volume systems.
FHGE: Non-GE Applicable Transferable: None

APR 141A COMPONENTS OF RESIDENTIAL HVAC SERVICE
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Residential Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 24 hours lecture, 30 hours laboratory.
Identifying components and evaluating their status in servicing heating and air conditioning equipment. Discussion of the service technician’s approach to field problems.
FHGE: Non-GE Applicable Transferable: None

APR 141B TROUBLESHOOTING DIAGNOSIS & REPAIR FOR RESIDENTIAL HVAC SERVICE
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Residential Service Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 24 hours lecture, 30 hours laboratory.
Troubleshooting approaches for HVAC equipment problems, with diagnosis and repair. Testing and tracing of circuits; visual evaluations for electrical and mechanical HVAC equipment. Review and practice of all basic skills necessary for A/C residential service technicians.
FHGE: Non-GE Applicable Transferable: None

APR 143A AIR BALANCE TEST EQUIPMENT & INSTRUMENTS (FIRST YEAR)
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing & Air Balance Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Development of skills necessary to use test and balance instruments and equipment for HVAC systems and automatic control systems. Use of practical mathematics and mathematical equations to measure air velocity and duct outlets, and to solve air and hydronic balancing problems.
FHGE: Non-GE Applicable Transferable: None

APR 143B TEMPERATURE MEASUREMENT INSTRUMENTS & DUCT SYSTEMS (FIRST YEAR)
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing & Air Balance Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
108 hours total: 30 hours lecture, 78 hours laboratory.
Continuing study of skills necessary to test and balance instruments and equipment for HVAC systems and automatic control systems. Use of practical mathematics and mathematical equations to measure air velocity and duct outlet, and to solve air and hydronic balancing problems.
FHGE: Non-GE Applicable Transferable: None
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>APRT 149A</td>
<td>ELECTRICAL SYSTEMS OPERATION, CONTROLS &amp; DEVICES (TAB-2)</td>
<td>4.5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing &amp; Air Balance Apprenticeship Program.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>108 hours total: 30 hours lecture, 78 hours laboratory.</td>
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<td>Study of individual electrical components and devices of control systems, and understanding their operation and relationship to each other. Identify and use instruments in measuring air movement. Learn how to interpret, use and understand drawings relating to the construction of a building.</td>
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<td>FHGE: Non-GE Applicable Transferable: None</td>
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| APRT 149B   | HVAC TESTING & BALANCING PROCEDURES (TAB-2)        | 4.5   |
|             | Degree & Credit Status: Degree-applicable credit course |       |
|             | Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing & Air Balance Apprenticeship Program. |       |
|             | Grade Type: Letter Grade or Pass/No Pass           |       |
|             | 108 hours total: 30 hours lecture, 78 hours laboratory. |       |
|             | Utilize skills and knowledge previously learned to apply methods of balancing HVAC systems. Balancing of systems will include both air and hydronic. Information gathered during the balancing will be used in completing reports required by the building engineer and owner. |       |
|             | FHGE: Non-GE Applicable Transferable: None         |       |

| APRT 150A   | AIR DISTRIBUTION & MANUFACTURING SYSTEMS (TAB-3)   | 4.5   |
|             | Degree & Credit Status: Degree-applicable credit course |       |
|             | Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing & Air Balance Apprenticeship Program. |       |
|             | Grade Type: Letter Grade or Pass/No Pass           |       |
|             | 108 hours total: 30 hours lecture, 78 hours laboratory. |       |
|             | The difference, advantages and disadvantages of pneumatic and direct digital control systems will be compared to electrical systems. Students will use laptop computers to access a control system from a remote location; take readings and make minor adjustments to the system. Clean room operation and protocol will be examined. |       |
|             | FHGE: Non-GE Applicable Transferable: None         |       |

| APRT 150B   | SYSTEMS INSTALLATION & TROUBLESHOOTING (TAB-3)     | 4.5   |
|             | Degree & Credit Status: Degree-applicable credit course |       |
|             | Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing & Air Balance Apprenticeship Program. |       |
|             | Grade Type: Letter Grade or Pass/No Pass           |       |
|             | 108 hours total: 30 hours lecture, 78 hours laboratory. |       |
|             | Proper layout and installation procedures on various control systems. This will include system programming, adjustment, testing, maintenance and repair of the installed system. |       |
|             | FHGE: Non-GE Applicable Transferable: None         |       |

| APRT 153A   | CUSTOMER SERVICE & CONTROL SYSTEMS & DEVICES (TAB-4) | 4.5   |
|             | Degree & Credit Status: Degree-applicable credit course |       |
|             | Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing & Air Balance Apprenticeship Program. |       |
|             | Grade Type: Letter Grade or Pass/No Pass           |       |
|             | 108 hours total: 30 hours lecture, 78 hours laboratory. |       |
|             | Develop skills and knowledge of various control systems in use today in the HVAC test and air balance industry. Develop customer relations in order to effectively deal with the consumer. |       |
|             | FHGE: Non-GE Applicable Transferable: None         |       |

| APRT 153B   | CUSTOMER SERVICE II & BALANCING PROCEDURES (TAB-4)  | 4.5   |
|             | Degree & Credit Status: Degree-applicable credit course |       |
|             | Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing & Air Balance Apprenticeship Program. |       |
|             | Grade Type: Letter Grade or Pass/No Pass           |       |
|             | 108 hours total: 30 hours lecture, 78 hours laboratory. |       |
|             | Continuation of APRT 153A. Develop skills and knowledge of various control systems in use today in the HVAC test and air balance industry. Further development of customer relations in order to effectively deal with the consumer. |       |
|             | FHGE: Non-GE Applicable Transferable: None         |       |

| APRT 154A   | PROJECT MANAGEMENT FOR THE TEST & AIR BALANCE INDUSTRY (TAB-5) | 4.5   |
|             | Degree & Credit Status: Degree-applicable credit course |       |
|             | Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing & Air Balance Apprenticeship Program. |       |
|             | Grade Type: Letter Grade or Pass/No Pass           |       |
|             | 108 hours total: 30 hours lecture, 78 hours laboratory. |       |
|             | Develop skills and knowledge of project management in use today in the HVAC test and air balance industry. Develop customer relations to effectively deal with the customer, project foreperson, and project engineers. |       |
|             | FHGE: Non-GE Applicable Transferable: None         |       |

| APRT 154B   | HAZARDOUS MATERIAL RECOGNITION FOR THE TEST & AIR BALANCE INDUSTRY (TAB-5) | 4.5   |
|             | Degree & Credit Status: Degree-applicable credit course |       |
|             | Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Testing & Air Balance Apprenticeship Program. |       |
|             | Grade Type: Letter Grade or Pass/No Pass           |       |
|             | 108 hours total: 30 hours lecture, 78 hours laboratory. |       |
|             | Develop skills and knowledge to recognize hazardous materials in the HVAC test and air balance industry. Use personal protective equipment and tools properly as they relate to hazardous materials. Review current laws governing hazardous material recognition and response. |       |
|             | FHGE: Non-GE Applicable Transferable: None         |       |
APPRENTICESHIP: SHEET METAL

Apprenticeship
650.949.7208 foothill.edu/apprenticeships/

APSM 101  SMQ-1 TRADE INTRODUCTION  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 36 hours lecture, 4 hours laboratory.
Introduction to Sheet Metal as a skilled construction trade including: general overview, trade history and related issues, material handling and safety, sheet metal materials, hardware, and HVAC careers. Includes First Aid and CPR training and certifications.
FHGE: Non-GE Applicable  Transferable: None

APSM 102  SMQ-2 CERTIFIED SAFETY & BEGINNING TRADE MATH
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 38 hours lecture, 2 hours laboratory.
Course introduces OSHA and related safety issues including job site safety, and aerial lift safety training and certification. Students will learn and apply the math skills necessary to meet the current industry standards in the construction trades. Course consists of basic arithmetic, geometry, algebra and trigonometry principles as applied in the construction trades.
FHGE: Non-GE Applicable  Transferable: None

APSM 103  SMQ-3 SHEET METAL TOOLS & SHOP
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 16 hours lecture, 24 hours laboratory.
Using sheet metal tools including hand tools and snips, shear, roll, and hand brake. Use of arithmetic and algebraic principles relating to sheet metal layout, fabrication of duct, pan, 45 degree tap-in, and plenum. Demonstration of other shop equipment used in the sheet metal industry.
FHGE: Non-GE Applicable  Transferable: None

APSM 104  SMQ-4 SOLDERING & COMMON SEAMS
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 18 hours lecture, 22 hours laboratory.
Course covers basic soldering and seam fabrication techniques. Includes soldering lap and vertical seams, soldering with various materials and flux, alternate seam fabrication, and fabrication of non-soldered seams.
FHGE: Non-GE Applicable  Transferable: None

APSM 105  SMQ-5 DRAFTING INTRODUCTION & VIEWS
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Introduction to communication of construction details through drafting of plans and patterns. Topics include drafting equipment and materials, use of an architect’s scale, drawing format, geometric construction, basic views, square and radius elbows, and drawing duct runs.
FHGE: Non-GE Applicable  Transferable: None

APSM 106  SMQ-6 BEGINNING DUCT FITTINGS
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 12 hours lecture, 28 hours laboratory.
Focus is on the variety of duct connections, sealing, elbows and transitions common to the sheet metal industry.
FHGE: Non-GE Applicable  Transferable: None

APSM 107  SMQ-7 PARALLEL LINE FITTINGS
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 16 hours lecture, 24 hours laboratory.
Introduction to communicating construction details through drafting of plans. Topics include drafting equipment and materials, use of an architect’s scale, drawing format, geometric construction, basic views, square and radius elbows, and drawing duct runs.
FHGE: Non-GE Applicable  Transferable: None

APSM 108  SMQ-8 TRIANGULATION FITTINGS
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 16 hours lecture, 24 hours laboratory.
Triangulation Fittings introduces another of three traditional sheet metal pattern development methods. Triangulation is a versatile method, often applied when other methods won’t work. Between the method, practice drawings and fabricated projects, there is much to cover in this course.
FHGE: Non-GE Applicable  Transferable: None

APSM 109  SMQ-9 RADIAL LINE LAY OUT & OGEE OFFSETS
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 14 hours lecture, 26 hours laboratory.
Radial Line Lay Out introduces a third of three traditional sheet metal pattern development methods. Concepts are applied to conical sheet metal projects. In addition, the ogee offset fitting, sometimes important in maintaining efficient air flow is developed in flat and compound forms.
FHGE: Non-GE Applicable  Transferable: None
APSM 110  SMQ-10 BASICS OF ARCHITECTURAL SHEET METAL  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 18 hours lecture, 22 hours laboratory.
This course focuses on essential skills used in architectural sheet metal work, including joint design for water flow, caulking and soldering applications, miters, and expansion joints. Discussion of use of architectural sheet metal in order to protect buildings from moisture and mold damage. Roof and scaffold safety is discussed.
FHGE: Non-GE Applicable  Transferable: None

APSM 111  SMQ-11 ARCHITECTURAL SHEET METAL  1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 12 hours lecture, 28 hours laboratory.
This architectural sheet metal course seeks to develop an understanding of the common applications and general skills used in architectural sheet metal construction. Chimney saddles, downspouts, flashings and counter flashings, soffits, and scuppers are covered in detail. Students fabricate many of these items.
FHGE: Non-GE Applicable  Transferable: None

APSM 112  SMQ-12 FIELD INSTALLATION  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 28 hours lecture, 12 hours laboratory.
This course addresses knowledge and application specific to field work in the sheet metal industry. Students receive training and safety certifications for forklift, scissor lift, or articulated booms. Proper techniques for rigging the sheet metal industry. Students receive training and safety certifications for forklift, scissor lift, or articulated booms. Proper techniques for rigging
FHGE: Non-GE Applicable  Transferable: None

APSM 113  SMQ-13 WELDING 1: PROCESS & SAFETY OVERVIEW  1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 16 hours lecture, 24 hours laboratory.
This course begins with an overview of common welding safety hazards and personal protective equipment for welding. The Gas Metal Arc Welding process is introduced and practiced by students as commonly used in the sheet metal industry. Machine set-up and basic skills are stressed.
FHGE: Non-GE Applicable  Transferable: None

APSM 114  SMQ-14 WELDING 2: GMAW  1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 12 hours lecture, 28 hours laboratory.
This course continues with development of Gas Metal Arc Welding and Flux Core Arc Welding skills. In addition, the SMAW welding process and metallurgy are introduced. Progress in student welding skill development is essential.
FHGE: Non-GE Applicable  Transferable: None

APSM 115  SMQ-15 SHOP DRAWINGS  1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 16 hours lecture, 24 hours laboratory.
This course introduces reading and interpreting title blocks, lines, abbreviations, symbols, sections, details and schedules for residential and commercial projects. Architectural, structural, mechanical, electrical, control, and specialty drawings are covered in detail.
FHGE: Non-GE Applicable  Transferable: None

APSM 116  SMQ-16 PLANS & SPECIFICATIONS  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 38 hours lecture, 2 hours laboratory.
Introduction to plans and specifications and their applications in the sheet metal construction industry. This includes reading and interpreting title blocks, lines, abbreviations, symbols, sections, details and schedules for residential and commercial projects. Architectural, structural, mechanical, electrical, control, and specialty drawings are covered in detail.
FHGE: Non-GE Applicable  Transferable: None

APSM 117  SMQ-17 SUBMITTALS & SHOP DRAWINGS  2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 34 hours lecture, 6 hours laboratory.
This course continues to build on job specification and blueprint reading instructions and adds the creation of a shop drawing and use of submittals as done in the sheet metal industry. This includes reading typical plans, specifications and submittals, identifying specific information on the submittal, applying a numbering system to the shop drawing, creating material lists from the shop drawing or submittal, and field use of drawings and submittals.
FHGE: Non-GE Applicable  Transferable: None

APSM 118  SMQ-18 INDUSTRIAL & STAINLESS STEEL INTRODUCTION  1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 16 hours lecture, 24 hours laboratory.
Course introduces heavy gage industrial sheet metal techniques and stainless steel applications used in the industry. Topics include calculations of bend allowances for heavy gauge metal, layout and forming heavy gauge metal, using a blowpipe, material handling equipment, marking, forming and surface finishing stainless steel products. Safety and material handling practices are reviewed.
FHGE: Non-GE Applicable  Transferable: None
APSM 119  SMQ-19 HVAC AIR SYSTEMS & DUCT DESIGN  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 36 hours lecture, 4 hours laboratory.
Course addresses the basics and critical details of heating, ventilating, and air conditioning (HVAC), and system design, operation, installation, and fabrication standards. Students will learn how HVAC systems can be designed with human comfort and efficient operation in mind. Students will learn basic components, and how to identify loss factors of typical HVAC systems. Load calculations and air flow calculations are performed and duct leak testing is introduced, stressing the importance of energy efficiency with today’s environmental concerns.
FHGE: Non-GE Applicable  Transferable: None

APSM 120  SMQ-20 MEASURING & SKETCHING  1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 14 hours lecture, 26 hours laboratory.
Field measuring and sketching techniques are discussed in detail as it relates to sheet metal work. Topics covered include measuring techniques and safety, reference points, calculations, and industry accepted symbols, views and representations. Students measure and produce sketches.
FHGE: Non-GE Applicable  Transferable: None

APSM 121  SMQ-21 FABRICATION & SHORTCUTS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 8 hours lecture, 32 hours laboratory.
Theory and application of sheet metal fabrication and shortcuts used in residential and commercial construction are reviewed in this course. Students will gain a working knowledge of alternative fabrication techniques and theory. Geometry and math associated with fabrication are an integral part of this course. Jobsite conditions and fabrication of specialty items are emphasized.
FHGE: Non-GE Applicable  Transferable: None

APSM 122  SMQ-22 CODES & STANDARDS  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 38 hours lecture, 2 hours laboratory.
Students are introduced to the organization and interpretation of building codes and standards in the sheet metal industry. The restrictions and limitations these codes place on the construction industry are covered in detail. Students work with codes common to the industry and use SMACNA standards to research information.
FHGE: Non-GE Applicable  Transferable: None

APSM 123  SMQ-23 RESIDENTIAL SHEET METAL  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 18 hours lecture, 22 hours laboratory.
Introduction to sheet metal work specific to residential construction including: the various types of residential heating, ventilation and air conditioning systems, combustion theory, basic air distribution, furnace construction, filters, humidifiers, installation techniques, maintenance procedures and roof drainage system requirements.
FHGE: Non-GE Applicable  Transferable: None

APSM 124  SMQ-24 METAL ROOFING  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 18 hours lecture, 22 hours laboratory.
Overview of the different types of metal roofs used in the sheet metal industry, installation skills, and safety concerns. Common roof seams are fabricated. Use of manufactured and shop-fabricated materials for roof lay out and installation is practiced, including roof penetrations and related flashings.
FHGE: Non-GE Applicable  Transferable: None

APSM 125  SMQ-25 DETAILING  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 36 hours lecture, 24 hours laboratory.
Detailing in the sheet metal industry is a specialized skill that requires extensive knowledge and proper attention to detail when working with drawings and specifications. In this course, students will compile detail information from plans, specs, submittals, standards, field measurements, and codes.
FHGE: Non-GE Applicable  Transferable: None

APSM 126  SMQ-26 FOREMAN TRAINING  2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
This course is for journeyman-level sheet metal workers who want to become supervisors, site managers, leads, and foreman. In this course, students will be able to identify the roles and responsibilities of the foreman, and reasons to become a foreman. Students will practice self-evaluation, successful foreman attributes, managing and leading others, and project management. They will learn to start a project and see it through to successful completion.
FHGE: Non-GE Applicable  Transferable: None
APSM 127        SMQ-27 BASIC AUTOCAD        1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 12 hours lecture, 28 hours laboratory.
In the Basic AutoCAD class students learn how to follow the proper protocols for computer lab use and perform essential computer file management operations. The students will navigate through the basic AutoCAD screen and command menus. The students will demonstrate the basic use of the AutoCAD program by creating and plotting a drawing assignment within parameters and given template. The students will be able to demonstrate how AutoCAD is used in the Sheet Metal Industry.
FHGE: Non-GE Applicable        Transferable: None

APSM 128        SMQ-28 HVAC ENERGY        2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 30 hours lecture, 10 hours laboratory.
This course is an introduction to energy and environmental technologies for the sheet metal and HVAC industry. It includes an introduction to California Title 24 requirements for HVAC systems, duct system testing, assessing utility bill and equipment nameplate data, the LEED point system, and basic heat transfer calculations. It also includes an overview of upcoming energy initiatives in California.
FHGE: Non-GE Applicable        Transferable: None

APSM 130        SMQ-30 ADVANCED WELDING        1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 14 hours lecture, 26 hours laboratory.
Advanced techniques used in Oxy-Fuel/ Plasma cutting, GMAW, and GTAW on various types and thicknesses of base material.
FHGE: Non-GE Applicable        Transferable: None

APSM 131        SMQ-31 CAD DETAILING        1 Unit
(BEGINNING CAD DUCT)
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 10 hours lecture, 30 hours laboratory.
Course covers basic computer-aided design (CAD) drawing skills required by industry. Use of CAD DUCT or similar specialized 3rd party sheet metal detailing software to set up drawings, including 3D duct detailing program with emphasis on electronic coordination. This course focuses on file management and drawing protocol and utilization of structural and architectural backgrounds. Students will design ducting within the CAD drawing and use CAD DUCT or similar software for location and elevation, as well as collision checks. Note: Other industry recognized third party software may be utilized in lieu of CAD DUCT, such as “Benchmark Draft” software, for similar lessons.
FHGE: Non-GE Applicable        Transferable: None

APSM 132        SMQ-32 INTERMEDIATE CAD DETAILING THIRD PARTY        1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 10 hours lecture, 30 hours laboratory.
Continuation of 3D duct detailing program for electronic coordination, emphasizing accessing, editing, and recovering files with the CAD DUCT or similar third party sheet metal detailing software system. Students will use format standards, tags files, and program utilities. Using contract documents, students will work through the steps necessary to create a job file.
FHGE: Non-GE Applicable        Transferable: None

APSM 133        SMQ-33 ADVANCED ARCHITECTURAL        1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 12 hours lecture, 28 hours laboratory.
Develop advanced skills to layout architectural custom flashing and cornices. Work with the newest metal roofing material. Work with copper and other materials to lay out and fabricate specialized architectural items.
FHGE: Non-GE Applicable        Transferable: None

APSM 134        SMQ-34 ADVANCED LAYOUT FABRICATION        1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 10 hours lecture, 30 hours laboratory.
Course addresses advanced methods of pattern development using both calculator and manual methods. Students will utilize math formulas relating to sheet metal lay out, fabrication, and shop procedures with the ITI Sheet Metal Pro Calculator, as well as apply geometric construction techniques to advanced patterns and job-site layouts.
FHGE: Non-GE Applicable        Transferable: None

APSM 136        SMQ-36 SERVICE BASICS        2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 26 hours lecture, 14 hours laboratory.
This course addresses the knowledge and development of the basic skills necessary for a sheet metal worker to service a basic HVAC building system.
FHGE: Non-GE Applicable        Transferable: None

APSM 151A         SERVICE INTRODUCTION & SAFETY        2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 30 hours lecture, 10 hours laboratory.
Students receive an introduction to their building trade service apprenticeship and the union HVAC industry with an emphasis on safety.
FHGE: Non-GE Applicable        Transferable: None

Foothill College
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<td>Essential HVAC Service Skills</td>
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<td>APSM 151C</td>
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<td>Piping, Refrigerant Evacuation &amp; Recovery</td>
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<td>APSM 153C</td>
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<td>APSM 154A</td>
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<td>APSM 154B</td>
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<td>Course Code</td>
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<td>APSM 154C</td>
<td>HYDRONIC HEATING</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>40 hours total: 25 hours lecture, 15 hours laboratory.</td>
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<td>Students will learn the basic principles of and equipment used in hydronic heating.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<tr>
<td>APSM 155A</td>
<td>SHEET METAL FABRICATION</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>40 hours total: 16 hours lecture, 24 hours laboratory.</td>
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<td>Students learn essential sheet metal fabrication as required in HVAC duct systems. Students build seams and selected common duct fittings.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<tr>
<td>APSM 155B</td>
<td>AIR DISTRIBUTION &amp; EFFICIENT DUCT DESIGN</td>
<td>2.5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>40 hours total: 35 hours lecture, 5 hours laboratory.</td>
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<td></td>
<td>Students develop an understanding of air flow characteristics and the proper design of duct systems.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<tr>
<td>APSM 155C</td>
<td>MAINTAINING EFFICIENT OPERATION OF ELECTRIC COOLING &amp; HEATING EQUIPMENT</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>40 hours total: 25 hours lecture, 15 hours laboratory.</td>
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<td>Students learn to perform maintenance procedures required for efficient operation of HVAC systems.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<tr>
<td>APSM 156A</td>
<td>HEAT PUMP EFFICIENT OPERATION &amp; SERVICE</td>
<td>2.5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>40 hours total: 30 hours lecture, 10 hours laboratory.</td>
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<td>Students learn how heat pumps function to transfer heat in either direction and apply theory with actual components.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<tr>
<td>APSM 156B</td>
<td>COOLING TOWERS, PUMPS &amp; PIPING</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>40 hours total: 35 hours lecture, 5 hours laboratory.</td>
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<td>Students develop an understanding of cooling towers, pumps, and condensing water circulation system requirements, using theory and system materials.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<tr>
<td>APSM 156C</td>
<td>CHILLED WATER HVAC SYSTEMS &amp; COMPONENTS</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>40 hours total: 35 hours lecture, 5 hours laboratory.</td>
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<td></td>
<td>Students receive an introduction to the operation, maintenance and repair of chilled water systems.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<tr>
<td>APSM 157A</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>Grade Type: Letter Grade Only</td>
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<td>40 hours total: 30 hours lecture, 10 hours laboratory.</td>
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<td>Students gain an introduction to and experience in reading and interpretation of building plans and specifications, especially as related to mechanical systems and equipment.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<tr>
<td>APSM 157B</td>
<td>HVAC ENERGY CODES &amp; STANDARDS</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>40 hours total: 35 hours lecture, 5 hours laboratory.</td>
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<td>Students are introduced to the California mechanical code, Building Energy Use Index, Title 24, and “Green” LEED construction, with particular attention to the role of HVAC service in energy conservation.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<tr>
<td>APSM 157C</td>
<td>INDOOR AIR QUALITY &amp; ENERGY EFFICIENCY</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.</td>
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<td>Not Repeatable.</td>
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<td>40 hours total: 35 hours lecture, 5 hours laboratory.</td>
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<td>Students will consider factors of indoor air quality versus energy efficiency, including airflow, filtration, air changes per hour, and humidity. Related HVAC equipment solutions, including economizers and duct system designs will also be discussed. Students will be introduced to typical measurements and requirements.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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<td>Course Code</td>
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<td>INTRODUCTION TO TESTING ADJUSTING BALANCING HVAC SYSTEMS</td>
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<td>APSM 159B</td>
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<td>APSM 159C</td>
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<td>HVAC SYSTEMS PRESSURES &amp; TEMPERATURE MEASUREMENT</td>
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**APSM 172A** PROPORTIONAL BALANCING 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Students will learn and practice the proportional balancing method to adjust air and water flows in commercial HVAC systems.
FHGE: Non-GE Applicable Transferable: None

**APSM 172B** DUCT LEAKAGE TESTING 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 28 hours lecture, 12 hours laboratory.
Students will gain an overview of the various methods of duct leakage testing, per requirements applied in the commercial HVAC industry.
FHGE: Non-GE Applicable Transferable: None

**APSM 172C** ELECTRICAL FUNDAMENTALS, ELECTRIC MOTORS & ROTATIONAL MEASUREMENTS 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 30 hours lecture, 10 hours laboratory.
Students will gain an overview of common electrical terminology, electrical formulas, types of motors used in the HVAC industry and measuring rotational speed.
FHGE: Non-GE Applicable Transferable: None

**APSM 173A** TEMPERATURE MEASUREMENTS, DUCT SYSTEMS & BASIC CONTROLS 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will gain an understanding of a variety of temperature measurements, the use of temperature measurement instruments, basic overview of HVAC duct systems and the control devices used to regulate temperature and humidity in HVAC systems.
FHGE: Non-GE Applicable Transferable: None

**APSM 173B** HVAC FANS, FAN LAWS & V-BELT DRIVES 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 30 hours lecture, 10 hours laboratory.
Students will survey common types of fans used in HVAC systems and learn the factors that affect fan performance and fan drive packages.
FHGE: Non-GE Applicable Transferable: None

**APSM 173C** HYDRONIC SYSTEMS, PUMPS & HYDRONIC BALANCING 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Students will gain an overview of the components and design of hydronic systems used in HVAC. Students will be able to measure pressures and determine flow through a pump and across various hydronic components.
FHGE: Non-GE Applicable Transferable: None

**APSM 174A** BALANCING DOCUMENTATION, COOLING TOWERS & TAB RELATED SKILLS 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Students will use Microsoft Word and Excel to complete reporting documentation used in the TAB industry. Students will determine performance values of cooling towers used in HVAC systems.
FHGE: Non-GE Applicable Transferable: None

**APSM 174B** FIRE LIFE SAFETY LEVEL 1 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will gain an overview of various types of fire dampers used in HVAC systems. Upon completion, students will be able to perform fire damper operational tests and inspections.
FHGE: Non-GE Applicable Transferable: None

**APSM 174C** TABB TECHNICIAN CERTIFICATION 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 20 hours lecture, 20 hours laboratory.
Students will demonstrate proper test and balance skills and achieve TABB Technician certification.
FHGE: Non-GE Applicable Transferable: None

**APSM 175A** DDC CONTROLS & PROGRAMS 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Students will gain an overview of direct digital control systems used in HVAC systems. Students will program and produce control documentation for a packaged rooftop HVAC system.
FHGE: Non-GE Applicable Transferable: None
APSM 175C FIRE LIFE SAFETY LEVEL 2 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will become familiar with the building codes that govern fire life safety systems. Upon completion, students will be able to test a fire life safety system and achieve ICB FLS Level 2 certification.
FHGE: Non-GE Applicable Transferable: None

APSM 176A PLANS & SPECIFICATIONS, CODES & STANDARDS 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 30 hours lecture, 10 hours laboratory.
Students will explain the role and responsibilities of jobsite foreman and project managers. Students will prepare a sample job cost tracking work sheet.
FHGE: Non-GE Applicable Transferable: None

APSM 176B BASIC REFRIGERATION & BRAZING/SOLDERING 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will describe the location and function of components used in HVAC refrigeration systems. Students will demonstrate proper brazing and soldering techniques.
FHGE: Non-GE Applicable Transferable: None

APSM 176C CLEAN ROOMS & HEPA FILTER TESTING 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 28 hours lecture, 12 hours laboratory.
Students will describe the purpose of a cleanroom and the function of HEPA and ULPA filters. Students will perform HEPA filter challenge and cleanroom performance testing to industry standards.
FHGE: Non-GE Applicable Transferable: None

APSM 177A TITLE 24 MECHANICAL ACCEPTANCE TESTING 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will explain the requirements of the California Title 24 energy code. Students will perform all Title 24 Mechanical Acceptance tests required in non-residential mechanical systems. Students will achieve NEMIC Mechanical Acceptance Test Technician certification.
FHGE: Non-GE Applicable Transferable: None

APSM 177B ADVANCED DDC CONTROLS/COMMISSIONING OF HVAC SYSTEMS 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Students will install, program and calibrate direct digital control components on HVAC systems. Students will describe the SMACNA commissioning process and prepare sample functional performance tests.
FHGE: Non-GE Applicable Transferable: None

APSM 177C ENERGY AUDITING 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will explain basic factors of air quality, demonstrate the use of indoor air quality test instruments and perform various tests to prepare a sample IAQ report.
FHGE: Non-GE Applicable Transferable: None

APSM 178A INDOOR AIR QUALITY 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 28 hours lecture, 12 hours laboratory.
Students will demonstrate the skills and knowledge to prepare and conduct a building energy audit to industry standards. Students will achieve the ICB Energy Audit Technician certification.
FHGE: Non-GE Applicable Transferable: None

APSM 178B GREEN CONSTRUCTION & LEED CERTIFICATION FOR HVAC 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will gain an overview of “Green Construction” principles and techniques used in the HVAC industry. Students will identify various methods of energy conservation and generation in high performance buildings.
FHGE: Non-GE Applicable Transferable: None

APSM 178C FOREMAN TRAINING/PROJECT MANAGEMENT FOR HVAC 2.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Students will describe the role and responsibilities of jobsite foreman and project managers. Students will prepare a sample job cost tracking worksheet.
FHGE: Non-GE Applicable Transferable: None
FHGE: Non-GE Applicable  Transferable: None

APSM 179A  BUILDING & CASCADING PRESSURES/AIR CHANGE TESTING  2 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Students will perform and calculate air changes per hour on building spaces, adjust room and building pressure differentials and prepare associated required documentation, per industry standards.
FHGE: Non-GE Applicable  Transferable: None

APSM 179B  SOUND & VIBRATION IN HVAC SYSTEMS  2.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 32 hours lecture, 8 hours laboratory.
Upon completion, students will measure room sound pressure readings to properly complete noise criterion (NC) and room criterion (RC) reports to industry standards. Students will properly conduct vibration testing on various HVAC equipment and document results to industry standards.
FHGE: Non-GE Applicable  Transferable: None

APSM 179C  BIOLOGICAL SAFETY CABINETS/LABORATORY FUME HOODS  2 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours total: 24 hours lecture, 16 hours laboratory.
Students will identify various types of laboratory fume hoods and biological safety cabinets and describe the function of each style. Students will follow proper industry standards to test laboratory fume hoods and biological safety cabinets to required industry standards.
FHGE: Non-GE Applicable  Transferable: None

APSC 111  JOB INFORMATION, SAFETY, TEST INSTRUMENTS, STRUCTURED CABILITY, FIBER OPTICS  3.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Northern CA Sound & Communication JATC Apprenticeship Program.
Advisory: Not open to students with credit in APRT 130.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
80 hours total: 30 hours lecture, 50 hours laboratory.
Introduction to the sound and communication industry. Students are exposed to the basic tools of the trade, test instruments, proper care and safety of tools, use of fastening devices and how to tie basic knots. This course will cover the TIA/EIA standards and students apply codeology to cabling systems, connectors, shielded twisted pairs and cables and connecting hardware. This course also includes a fiber optic overview of different optical cables, connectors and connection joints. This course teaches students how to properly install, test and certify fiber optical cables.
FHGE: Non-GE Applicable  Transferable: None

APSC 112  CODES & PRACTICES, CONNECTORS & RACEWAYS, BLUEPRINT READING, DC THEORY  3.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Northern CA Sound & Communication JATC Apprenticeship Program.
Advisory: Not open to students with credit in APRT 131.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
80 hours total: 30 hours lecture, 50 hours laboratory.
This course will cover the National Electrical Code (NEC). Students apply codeology to cabling systems, boxes, connectors, and raceways. It covers the fundamentals of blueprints, scales, mechanical and electrical symbols, using industry elevations and schedules. This course will also cover DC theory, how electricity works, how to calculate and measure voltage, current, resistance and power in a series and/or parallel circuit.
FHGE: Non-GE Applicable  Transferable: None

APSC 121  AC THEORY, MASTER CLOCK, NURSE CALL, COMPUTER LITERACY  3.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Northern CA Sound & Communication JATC Apprenticeship Program.
Advisory: Not open to students with credit in APRT 132.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
80 hours total: 30 hours lecture, 50 hours laboratory.
Study of AC theory. The student will become familiar with sine waves, inductance, inductive reactance, capacitive reactance, frequency and AC impedance. Calculate voltage, current, impedance and power in both a series and a parallel AC circuit. Introduction to nurse call systems, including system components, ancillary systems, system design, installation and troubleshooting techniques. Instruction on personal computing software, such as Microsoft Word and Excel. Students create Word documents and practical spreadsheets.
FHGE: Non-GE Applicable  Transferable: None
APSC 122 FIRE ALARM, PAGING, EMERGENCY COMMUNICATION, MASS NOTIFICATION SYSTEMS 3.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Northern CA Sound & Communication JATC Apprenticeship Program.
Advisory: Not open to students with credit in APRT 160.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
80 hours total: 30 hours lecture, 50 hours laboratory.

APSC 131 VDV/FIRE LIFE SAFETY PREP, NETWORKING, CCTV, CATV & DAS 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Northern CA Sound & Communication JATC Apprenticeship Program.
Advisory: Not open to students with credit in APRT 160.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
80 hours total: 40 hours lecture, 40 hours laboratory.

APSC 132 RADIO FREQUENCIES, SECURITY SYSTEMS, AUDIO-VISUAL 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Northern CA Sound & Communication JATC Apprenticeship Program.
Advisory: Not open to students with credit in APRT 161.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
80 hours total: 40 hours lecture, 40 hours laboratory.

APPRENTICESHIP: VETERINARY ASSISTING

APAV 50A CURRENT TOPICS IN VETERINARY TECHNOLOGY I 1 Unit

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.
Grade Type: Letter Grade Only
Not Repeatable.
12 hours lecture total.

This course is the first in a series of three courses that orient the advanced veterinary assisting apprentice to the workplace. Different aspects of the veterinary health care team will be discussed, as well as the various roles available in the organization. Different departments will present their interests, core values, and structure for integrating veterinary assistants into the team. Students will develop an appreciation of the broad scope of careers within the field. An acculturation process of the student to the facility begins in this course.

FHGE: Non-GE Applicable Transferable: None
APAV 50B  CURRENT TOPICS IN VETERINARY TECHNOLOGY II 1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.
Grade Type: Letter Grade Only
Not Repeatable.
12 hours lecture total.
Provides enrichment of the core curriculum to the veterinary assisting apprentice student. Presenters will include veterinarians, veterinary technicians, and animal care and management professionals involved in behavior and training of dogs and cats. Course will focus on learning theory, animal welfare, making the veterinary hospital experience less stressful and more pleasurable, decrease learned procedure aversion and fear of veterinary offices, and decrease of injuries to professionals.
FHGE: Non-GE Applicable  Transferable: CSU

APAV 50C  CURRENT TOPICS IN VETERINARY TECHNOLOGY III 1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.
Grade Type: Letter Grade Only
Not Repeatable.
12 hours lecture total.
Provides enrichment of the core curriculum to the advanced veterinary assisting apprentice. Presenters will include veterinarians, veterinary technicians, business professionals, and educators. Lectures, lecture-demonstrations, multimedia presentations, live demonstrations, or hands-on workshops presented by the instructor or professionals in veterinary medicine. Content consists of relevant topics related to the workplace and concurrent coursework in the program curriculum, with an emphasis on clinical pharmacology and client education topics.
FHGE: Non-GE Applicable  Transferable: CSU

APAV 51  INTRODUCTION TO VETERINARY TECHNOLOGY 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.
Advisory: Not open to students with credit in V T 51.
Grade Type: Letter Grade Only
Not Repeatable.
24 hours lecture total.
Introduction to the profession of veterinary technology. Orientation to the program requirements and curriculum. Overview of program structure and student services. Review and practice of library skills. Survey of the role of the veterinary assistant and registered veterinary technician in the workplace. Survey of employment opportunities and areas of specialization. Ethics and professionalism pertaining to veterinary medicine. Laws and regulations governing veterinary technicians. Introduction to basic animal care skills and clinical procedures.
FHGE: Non-GE Applicable  Transferable: CSU

APAV 53A  MEDICAL TERMINOLOGY 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.
Advisory: Not open to students with credit in V T 53A.
Grade Type: Letter Grade Only
Not Repeatable.
24 hours lecture total.
Focus on basic word parts and rules of word construction to learn the language of medicine. Translation of common medical terms pertaining to the different body systems, with emphasis on those terms particular to veterinary medicine. Application of language to clinical situations.
FHGE: Non-GE Applicable  Transferable: CSU

APAV 53B  MEDICAL CALCULATIONS 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.
Advisory: Not open to students with credit in V T 53B.
Grade Type: Letter Grade Only
Not Repeatable.
24 hours lecture total.
Applied mathematics as a fundamental communication and technical skill. Review of calculations involving fractions, decimals, ratios and proportions, unit conversions, and algebraic equations. Clinical medical calculations utilized in preparation and administration of drugs, dosage determinations, intravenous fluid infusion, and prescription dispensing.
FHGE: Non-GE Applicable  Transferable: CSU

APAV 54A  COMPARATIVE VETERINARY ANATOMY & PHYSIOLOGY FOR THE VETERINARY TECHNICIAN 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.
Advisory: Not open to students with credit in V T 54A.
Grade Type: Letter Grade Only
Not Repeatable.
84 hours total: 48 hours lecture, 36 hours laboratory.
The first of two courses in comparative veterinary anatomy and physiology for veterinary technicians. Clinically relevant veterinary anatomy and physiology. Discussion of the similarities and differences among the major domestic species. The first course introduces basics of chemistry to help the student interpret the physical and chemical basis of life. Systems included in the first course are: integumentary, muscles, skeletal, and cardiovascular. Emphasis is placed on the normal structure and function of the major organ systems as the foundation for understanding normal physiology and the pathophysiology of disease.
FHGE: Non-GE Applicable  Transferable: CSU
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>APAV 54B</td>
<td>COMPARATIVE VETERINARY ANATOMY &amp; PHYSIOLOGY FOR THE VETERINARY TECHNICIAN</td>
<td>5</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course&lt;br&gt;Prerequisites: APAV 54A; per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.&lt;br&gt;Advisory: Not open to students with credit in V T 54B.&lt;br&gt;Grade Type: Letter Grade Only&lt;br&gt;Not Repeatable.&lt;br&gt;84 hours total: 48 hours lecture, 36 hours laboratory.&lt;br&gt;The second of two courses in comparative veterinary anatomy and physiology for veterinary technicians. Clinically relevant veterinary anatomy and physiology. Discussion of the similarities and differences among the major domestic species. Systems included in this course are: respiratory, gastrointestinal, neurologic, endocrine, reproductive, and urinary. The differences between avian and mammalian anatomy and physiology is discussed. Emphasis is placed on the normal structure and function of the major organ systems as the foundation for understanding normal physiology and the pathophysiology of disease. FHGE: Non-GE Applicable Transferable: CSU</td>
</tr>
<tr>
<td>APAV 55</td>
<td>ANIMAL MANAGEMENT &amp; CLINICAL SKILLS I</td>
<td>4</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course&lt;br&gt;Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.&lt;br&gt;Grade Type: Letter Grade Only&lt;br&gt;Not Repeatable.&lt;br&gt;72 hours total: 36 hours lecture, 36 hours laboratory.&lt;br&gt;Intended for the pre-clinical nursing training of advanced veterinary assisting apprenticeship students. The following topics are covered: occupational health and safety, dog and cat handling and restraint, administration of medication, assessing dehydration and basic fluid administration, principles of aseptic technique, sanitation, disinfection and sterilization, introduction to principles of surgical nursing and instrumentation. FHGE: Non-GE Applicable Transferable: CSU</td>
</tr>
<tr>
<td>APAV 56</td>
<td>ANIMAL MANAGEMENT &amp; CLINICAL SKILLS II</td>
<td>4</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course&lt;br&gt;Prerequisites: APAV 55; per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.&lt;br&gt;Grade Type: Letter Grade Only&lt;br&gt;Not Repeatable.&lt;br&gt;72 hours total: 36 hours lecture, 36 hours laboratory.&lt;br&gt;Intended for the pre-clinical training of veterinary technology students. Survey of basic responsibilities and technical duties of veterinary technicians. Clinical nutrition and feeding of the dog and cat. Basic principles of wound healing. Basic electrocardiography. Venipuncture for catheter placement, blood collection, and intravenous administration of fluids and medications. Troubleshooting of intravenous catheter set-ups. Bandaging and splinting. Introduction to anesthesia: stages of anesthesia, components of anesthetic equipment. Introduction to basic operating room skills and procedures. FHGE: Non-GE Applicable Transferable: CSU</td>
</tr>
<tr>
<td>APAV 60</td>
<td>VETERINARY OFFICE PRACTICE</td>
<td>2</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course&lt;br&gt;Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.&lt;br&gt;Advisory: Not open to students with credit in V T 60.&lt;br&gt;Grade Type: Letter Grade Only&lt;br&gt;Not Repeatable.&lt;br&gt;24 hours lecture total.&lt;br&gt;Principles and practice of veterinary office management for veterinary nursing students. Client relations, telephone techniques, interpersonal skills, and team dynamics. Generation and maintenance of correspondence, medical records, legal forms, and hospital logs. Professional ethics and legal boundaries of the veterinary health care team. Facility management utilizing traditional and electronic media and appropriate veterinary medical terminology and abbreviations. Resume writing and interviewing techniques. Principles of inventory control. Use of practice management software. State and federal laws as they apply to the veterinary practice. FHGE: Non-GE Applicable Transferable: CSU</td>
</tr>
<tr>
<td>APAV 75A</td>
<td>ANIMAL CARE SKILLS I</td>
<td>1</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course&lt;br&gt;Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.&lt;br&gt;Advisory: Not open to students with credit in V T 75A.&lt;br&gt;Grade Type: Letter Grade Only&lt;br&gt;Not Repeatable.&lt;br&gt;36 hours laboratory total.&lt;br&gt;Practical application of animal care skills and principles of animal care and management. Opportunity to participate in the health care team involved in the husbandry and management of companion animals in a hospital and shelter environment. Emphasis will be on the basic principles and application of clinical facility management, care and behavior of hospitalized patients, routine maintenance duties, and euthanasia, grief and pet loss support. FHGE: Non-GE Applicable Transferable: CSU</td>
</tr>
<tr>
<td>APAV 75B</td>
<td>ANIMAL CARE SKILLS II</td>
<td>1</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course&lt;br&gt;Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.&lt;br&gt;Advisory: Not open to students with credit in V T 75B.&lt;br&gt;Grade Type: Letter Grade Only&lt;br&gt;Not Repeatable.&lt;br&gt;36 hours laboratory total.&lt;br&gt;Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology classes. Students expand their animal care knowledge, skills, and abilities to include skills needed to be successful applying clinical diagnostics in the workplace. Students are expected to apply knowledge of medical terminology, anatomy and physiology to animal care duties. There is an emphasis on professional behavior, medical record keeping, and clinical procedures with dogs and cats. FHGE: Non-GE Applicable Transferable: CSU</td>
</tr>
</tbody>
</table>
FHGE: Humanities  Transferable: CSU/UC

Prehistoric, Mesopotamian, Egyptian, Greek, Roman, Early Christian and Byzantine culture. Illustrated lectures and readings. The honors sections expand the primary sources for the student. In addition to the textbook, students have a reading list of sources (on reserve in the library). Lectures are more interactive and the student is expected to participate in group discussions. Exams are more exacting with an emphasis on the student being able to comfortably assimilate political, social, and economic factors into their analysis.

FHGE: Humanities  Transferable: CSU/UC

ACCOUNTING

ART

Fine Arts and Communication
650.949.7156  foothill.edu/art/

Foothill offers art activity courses in six different family categories. No single course may be repeated. Enrollment is limited to six courses per family within the Foothill-De Anza Community College District. Please refer to the De Anza College Catalog for the corresponding families and courses.

Drawing Family: ART 4B, 4C, 4D, 4E & 4I
Painting Family: ART 19A, 19B, 19C, 19D, 47A & 47B
Printmaking Family: GID 46
Ceramic Construction Family: ART 44, 45A, 45B, 45C & 46B
Ceramic Surface Family: ART 45F
Sculpture Family: ART 5C

ART 1  INTRODUCTION TO ART  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass

ART 2A  HISTORY OF ART: HISTORY OF WESTERN ART FROM PREHISTORY THROUGH EARLY CHRISTIANITY  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in ART 2AH.
Grade Type: Letter Grade or Pass/No Pass

ART 2AH  HONORS HISTORY OF ART: HISTORY OF WESTERN ART FROM PREHISTORY THROUGH EARLY CHRISTIANITY  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ART 2A.
Grade Type: Letter Grade or Pass/No Pass

ART 2BH  HONORS HISTORY OF ART: HISTORY OF WESTERN ART FROM THE MIDDLE AGES TO THE RENAISSANCE  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ART 2A.
Grade Type: Letter Grade or Pass/No Pass

ART 2B  HISTORY OF WESTERN ART FROM THE MIDDLE AGES TO THE RENAISSANCE  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in ART 2AH.
Grade Type: Letter Grade or Pass/No Pass

METHODS

An introductory survey examining images, objects, and architecture produced from the Paleolithic era to the end of the Roman Empire. We will discuss Prehistoric, Mesopotamian, Egyptian, Greek, Roman, and Early Christian and Byzantine culture. Illustrated lectures and readings.

FHGE: Humanities  Transferable: CSU/UC

APAV 81  CLINICAL PATHOLOGY  5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisites: APAV 55; per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.

Grade Type: Letter Grade Only
Not Repeatable.

84 hours total: 48 hours lecture, 36 hours laboratory.

Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Areas of study include hematology, urinalysis, coagulation assessment, blood biochemistry and immunological testing, serology, clinical parasitology, and cytology. The veterinary technician's role in sample collection, sample storage and handling, and performance of analytic procedures will be emphasized. Skills are developed in the use of laboratory equipment, laboratory safety and management, and quality control and quality assurance.

FHGE: Non-GE Applicable  Transferable: CSU

APAV 81  CLINICAL PATHOLOGY  5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisites: APAV 55; per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.

Grade Type: Letter Grade Only
Not Repeatable.

84 hours total: 48 hours lecture, 36 hours laboratory.

Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Areas of study include hematology, urinalysis, coagulation assessment, blood biochemistry and immunological testing, serology, clinical parasitology, and cytology. The veterinary technician's role in sample collection, sample storage and handling, and performance of analytic procedures will be emphasized. Skills are developed in the use of laboratory equipment, laboratory safety and management, and quality control and quality assurance.

FHGE: Non-GE Applicable  Transferable: CSU

APAV 81  CLINICAL PATHOLOGY  5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisites: APAV 55; per California Code of Regulations, this course is limited to students admitted to the Advanced Veterinary Assisting Apprenticeship Program.

Grade Type: Letter Grade Only
Not Repeatable.

84 hours total: 48 hours lecture, 36 hours laboratory.

Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Areas of study include hematology, urinalysis, coagulation assessment, blood biochemistry and immunological testing, serology, clinical parasitology, and cytology. The veterinary technician's role in sample collection, sample storage and handling, and performance of analytic procedures will be emphasized. Skills are developed in the use of laboratory equipment, laboratory safety and management, and quality control and quality assurance.

FHGE: Non-GE Applicable  Transferable: CSU
ART 2C  HISTORY OF WESTERN ART FROM THE BAROQUE TO MODERNISM  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in ART 2CH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1.5 hours laboratory. (66 hours total per quarter.)
History of Western art from ca. 1600 to the 20th century. An introductory survey examining images, objects, and architecture produced from the late Renaissance to Modernism. Illustrated lectures and readings.
FHGE: Humanities Transferable: CSU/UC

ART 2E  A HISTORY OF WOMEN IN ART  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in WMN 15.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1.5 hours laboratory. (66 hours total per quarter.)
A chronological, thematic, and cross-cultural examination of art works and gender issues concerning women artists from the early Middle-Ages to the 21st century. Includes the influences on art produced by women of such issues as race, gender, socio-economic and political conditions, increasing urbanization, and conceptions of nature, etc.
FHGE: Humanities Transferable: CSU/UC

ART 2F  INTRODUCTION TO ASIAN ART  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in ART 12.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1.5 hours laboratory. (66 hours total per quarter.)
An introduction to the art of India, China and Japan from the Neolithic Age to the present, covering painting, sculpture, architecture and ceramics. This course emphasizes the cultural, social and historical meaning of art and traces the changes in style, meaning, and use of art within the broader context of the great religious traditions of China, Japan, and India.
FHGE: Humanities Transferable: CSU/UC

ART 2J  AMERICAN ART  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in ART 14.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1.5 hours laboratory. (66 hours total per quarter.)
A history of the culturally diverse arts produced in North America (specifically the United States) from prehistory to the present. American art is considered thematically and chronologically, focusing on the important influences on art of nature, landscape, urbanization, gender, race, religion, ethnicity, socio-economic and political reforms, and civil and international wars.
FHGE: Humanities Transferable: CSU/UC

ART 3  HISTORY OF MODERN ART FROM POST-IMPRESSIONISM TO THE PRESENT  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1.5 hours laboratory. (66 hours total per quarter.)
A study of art and architecture from Post-Impressionism to the present day emphasizing the importance of social, economic, and political influences on the art of this period. This course is designed to relate contemporary artistic expression to modern thought. Lectures will be directed towards illustrating and interpreting the subjects listed in the course content. We will study painting, sculpture, architecture, conceptual art, environmental art, and modern digital media from across the world. A field trip will be taken to a museum.
FHGE: Non-GE Applicable Transferable: CSU/UC

ART 4A  FUNDAMENTALS IN DRAWING  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
In this beginning-level drawing course, students will analyze form and incorporate value, the concepts of light and shadow patterns, perspective, proportion and composition in the practice of drawing. In-depth theory and practice of charcoal drawing. Great works of historical drawings will be studied in relation to value, line, form, space and composition.
FHGE: Humanities Transferable: CSU/UC

ART 4B  INTERMEDIATE DRAWING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Drawing family of activity courses.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Exploration of artistic concepts, styles, and creative expression related to intermediate-level drawing, focusing on complex subject matter and concepts, using a variety of color drawing media, techniques, and methodologies. Students in this course will build on fundamental drawing skills to develop personalized approaches to content and materials in exercises covering multiple historical and contemporary approaches to drawing.
FHGE: Non-GE Applicable Transferable: CSU/UC

ART 4C  REPRESENTATIONAL DRAWING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Drawing family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
An intermediate-level representational drawing course concentrating on observation and depiction of volume, texture and linear perspective in a variety of drawing media.
FHGE: Non-GE Applicable Transferable: CSU/UC

ART 4D  FIGURE DRAWING I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Drawing family of activity courses.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Beginning drawing course focusing on the representation and interpretation of the human figure, with attention to drawing from life.
FHGE: Non-GE Applicable Transferable: CSU/UC

ART 4E  HEADS & HANDS DRAWING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Drawing family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Beginning drawing course focusing on the representation and interpretation of the head and hands, with attention to drawing from life from a live figure model.
FHGE: Non-GE Applicable Transferable: CSU/UC
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Advisory</th>
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<tbody>
<tr>
<td>ART 4G</td>
<td>MURAL MAKING: COMMUNITY</td>
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<td>ART PROJECT</td>
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<tr>
<td>ART 5A</td>
<td>2-D FOUNDATIONS</td>
<td>4</td>
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<td>ART 5B</td>
<td>3-D FOUNDATIONS</td>
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<td>ART 5C</td>
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<td>ART 4I</td>
<td>FIGURE DRAWING II</td>
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<td>ART 4G</td>
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<td>ART 5C</td>
<td>SCULPTURE</td>
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<tr>
<td>ART 15A</td>
<td>DIGITAL PAINTING I</td>
<td>4</td>
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<tr>
<td>ART 15B</td>
<td>DIGITAL PAINTING II</td>
<td>4</td>
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<tr>
<td>ART 15C</td>
<td>DIGITAL ILLUSTRATION FOR FILM &amp; ANIMATION</td>
<td>4</td>
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<tr>
<td>ART 19A</td>
<td>OIL PAINTING I</td>
<td>4</td>
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<tr>
<td>ART 19B</td>
<td>ACRYLIC PAINTING I</td>
<td>4</td>
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<td>ART 15D</td>
<td>DIGITAL ILLUSTRATION FOR FILM &amp; ANIMATION</td>
<td>4</td>
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</table>

**Description:**

- **ART 4G:** MURAL MAKING: COMMUNITY
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Advisory: ART 5A; not open to students with credit in ART 18 or 80.
  - Grade Type: Letter Grade or Pass/No Pass
  - Not Repeatable.

- **ART 5A:** 2-D FOUNDATIONS
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Grade Type: Letter Grade Only
  - Not Repeatable.

- **ART 5B:** 3-D FOUNDATIONS
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Grade Type: Letter Grade Only
  - Not Repeatable.

- **ART 5C:** SCULPTURE
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Grade Type: Letter Grade or Pass/No Pass
  - Not Repeatable.

- **ART 4I:** FIGURE DRAWING II
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Grade Type: Letter Grade or Pass/No Pass
  - Not Repeatable.

- **ART 15A:** DIGITAL PAINTING I
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Advisory: This course is included in the Painting family of activity courses.
  - Grade Type: Letter Grade Only
  - Not Repeatable.

- **ART 15B:** DIGITAL PAINTING II
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Advisory: This course is included in the Painting family of activity courses.
  - Grade Type: Letter Grade Only
  - Not Repeatable.

- **ART 15C:** DIGITAL ILLUSTRATION FOR FILM & ANIMATION
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Prerequisite: ART 15A.
  - Advisory: GID 37; familiarity with current interface operations for desktop computers, laptops and digital tablets.

- **ART 19A:** OIL PAINTING I
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Advisory: This course is included in the Painting family of activity courses.
  - Grade Type: Letter Grade Only
  - Not Repeatable.

- **ART 19B:** ACRYLIC PAINTING I
  - 4 Units
  - Degree & Credit Status: Degree-applicable credit course
  - Advisory: This course is included in the Painting family of activity courses.
  - Grade Type: Letter Grade Only
  - Not Repeatable.
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Credit Status</th>
<th>Prerequisites</th>
<th>Advisories</th>
<th>Grade Type</th>
<th>Transferable</th>
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<td>ART 45A</td>
<td>BEGINNING CERAMICS</td>
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<td>ART 45B</td>
<td>BEGINNING CERAMICS</td>
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<td>ART 45C</td>
<td>ADVANCED CERAMICS</td>
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<td>ART 45A and 45B</td>
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<td>ART 45F</td>
<td>LOW-TEMPERATURE CERAMIC FIRING &amp; GLAZING TECHNIQUES</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>ART 45A or 45B</td>
<td></td>
<td>Letter Grade or Pass/No Pass</td>
<td>CSU/UC</td>
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</tbody>
</table>
ART 46B POTTER'S WHEEL II 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ART 45B.
Advisory: This course is included in the Ceramic Construction family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Provides intermediate level instruction in clay processes covering intermediate wheel-throwing methods, glazing, decorating, and firing procedures. Explores technical problem solving, and creative design.
FHGE: Non-GE Applicable Transferable: CSU/UC Pending

ART 47A WATERCOLOR I 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ART 4A or 5A; ART 4B, 20A; this course is included in the Painting family of activity courses; not open to students with credit in ART 47.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Study of transparent and opaque watercolor techniques. Emphasis on basic techniques of painting and composition.
FHGE: Non-GE Applicable Transferable: CSU/UC

ART 47B WATERCOLOR II 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ART 47A.
Advisory: ART 4A or 5A; ART 4B, 20A; this course is included in the Painting family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
FHGE: Non-GE Applicable Transferable: CSU/UC

ART 70R INDEPENDENT STUDY IN ART 1 Unit
ART 71R 2 Units
ART 72R 3 Units
ART 73R 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Art beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable Transferable: CSU

ASTR 10A GENERAL ASTRONOMY: SOLAR SYSTEM 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Concurrent enrollment in ASTR 10L.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Non-technical introduction to astronomy, with emphasis on the planets, dwarf planets, moons, and smaller bodies which make up our solar system, as well as the scientific search for life elsewhere in the universe. Topics include the nature of light, the atom, and telescopes; an examination of the planets and their moons and rings, dwarf planets, comets, asteroids, and meteors; catastrophic events (including the impact that may have killed the dinosaurs); the search for planets and life around other stars, the challenges of space travel, and modern views on extraterrestrial contact. No background in science or math is assumed.
FHGE: Natural Sciences Transferable: CSU/UC

ASTR 10B GENERAL ASTRONOMY: STARS, GALAXIES, COSMOLOGY 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Concurrent enrollment in ASTR 10L; not open to students with credit in ASTR 10BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Non-technical introduction to astronomy, with emphasis on stars, galaxies, and the origin and evolution of the universe. Topics covered include the nature of light, atoms, and telescopes; the birth, evolution, and death of stars (including an introduction to black holes); the Milky Way Galaxy and its development over time; normal galaxies, active galaxies, and cannibal galaxies; and the Big Bang model (of the origin and ultimate fate of the cosmos). No background in science or math is assumed.
FHGE: Natural Sciences Transferable: CSU/UC

ASTR 10BH HONORS GENERAL ASTRONOMY: STARS, GALAXIES, COSMOLOGY 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Concurrent enrollment in ASTR 10L; not open to students with credit in ASTR 10B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Non-technical introduction to astronomy, focusing on qualitative reasoning about stars, galaxies, and the origin and evolution of the universe. Topics include: the nature of light, matter, and telescopes; the basic physical processes of the universe; the formation and death of stars and their role in producing the elements necessary for life (including an introduction to black holes); the Milky Way and other galaxies, their structure, formation, and evolution; the history, evolution, and structure of the universe from the Big Bang to the heat death of the universe; the impact of astronomical events on life on Earth. The honors section offers a challenging intellectual environment which covers the same outline as the general course but in more depth.
FHGE: Natural Sciences Transferable: CSU/UC
ASTR 10L ASTRONOMY LABORATORY 1 Unit
Degree & Credit Status: Degree-applicable credit course
Corequisite: Completion of or concurrent enrollment in ASTR 10A, 10B or 10BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
A hands-on approach to the scientific method, using astronomical data and equipment. Divided into small lab groups, students will do experiments and observing projects about a range of astronomical topics, including the phases of the Moon, the reasons for the seasons, the rotation, revolution, and sphericity of the Earth, and the scale and composition of astronomical objects. Students will carry out naked-eye observations of the sky, visit the Foothill observatory, and use a portable telescope to communicate about astronomy with other students and the public.
FHGE: Natural Sciences Transferable: CSU/UC

ASTR 54H HONORS INSTITUTE SEMINAR IN ASTRONOMY 1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Corequisite: ASTR 10BH.
Advisory: Not open to students with credit in ASTR 34 or 34H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
In this honors seminar, students build upon topics covered in Astronomy lecture courses by developing a presentation, piece of writing, video, or some other creative piece to teach others about an astronomical phenomenon. The course emphasizes learning how to carry out effective background research, process that information for understanding, and refine that understanding by preparing material to explain the phenomena to others (i.e., "To teach is to learn twice over").
FHGE: Non-GE Applicable Transferable: CSU

ASTR 70R INDEPENDENT STUDY IN ASTRONOMY 1 Unit
ASTR 71R 2 Units
ASTR 72R 3 Units
ASTR 73R 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Astronomy beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable Transferable: CSU

ATHLETICS

Kinesiology and Athletics
650.949.7742 foothill.edu/athletics/

ATHL 4 INTERCOLLEGIATE FOOTBALL 2 Units (MEN)
Degree & Credit Status: Degree-applicable credit course
Advisory: Limitation on enrollment: Athletic tryout for intercollegiate team selection is required to enroll with permission of the instructor. Students will be required to have a physical prior to participation in the class. Students will be required to achieve and maintain sport-specific performance standards as evaluated by the instructor. Continued eligibility is determined by appropriate CCCAA academic and decorum rules.
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
6 hours laboratory. (72 hours total per quarter.)
Competitive intercollegiate football emphasizing early season conditioning, development of skills and strategy, and team building through pre-conference and conference competition. Intended for participants of the men's football team.
FHGE: Lifelong Understanding Transferable: CSU/UC

ATHL 4A PRESEASON CONDITIONING FOR FOOTBALL 2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
6 hours laboratory. (72 hours total per quarter.)
The development of athletic skills and mental conditioning which is required to be successful in the intercollegiate sport of football.
FHGE: Lifelong Understanding Transferable: CSU/UC

ATHL 4B SPORT TECHNIQUES & CONDITIONING FOR FOOTBALL 2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
6 hours laboratory. (72 hours total per quarter.)
This course teaches and provides practice specific techniques and conditioning for the sport of football. This includes drills, weight and flexibility training, and cardio-respiratory development.
FHGE: Lifelong Understanding Transferable: CSU/UC

ATHL 4C FUNCTIONAL FITNESS FOR FOOTBALL 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
3 hours laboratory. (36 hours total per quarter.)
This course will provide advanced training and instruction in the use of weights for the sport of football.
FHGE: Lifelong Understanding Transferable: CSU/UC
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Advisory</th>
<th>Grade Type</th>
<th>May be taken six times for credit</th>
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<th>Competitive intercollegiate football working toward personal and physical development, athletic scholarship, transfer, and career opportunities.</th>
<th>FHGE: Lifelong Understanding</th>
<th>Transferable: CSU/UC</th>
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<tr>
<td>ATHL 12</td>
<td>INTERCOLLEGIATE BASKETBALL I (MEN)</td>
<td>3</td>
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<td>6 hours laboratory. (72 hours total per quarter.)</td>
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<td>The development of athletic skills and mental conditioning which is required to be successful in the intercollegiate sport of soccer.</td>
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<td>SPORT TECHNIQUES &amp; CONDITIONING FOR MEN’S SOCCER</td>
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<td>This course teaches and provides practice specific techniques and conditioning for the sport of soccer. This includes drills, weight and flexibility training, and cardio-respiratory development.</td>
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<td>ATHL 21C</td>
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<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<td>ATHL 21F</td>
<td>INTERCOLLEGIATE SOCCER II (MEN)</td>
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<td>Competitive intercollegiate soccer emphasizing athletic skill and strategy development and performance through conference and post-conference competition. Intended for participants of the men’s soccer team.</td>
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<td>ATHL 22</td>
<td>INTERCOLLEGIATE SOCCER I (WOMEN)</td>
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<td>Competitive intercollegiate soccer emphasizing early season conditioning, development of skill and strategy, and team building through pre-conference and conference competition. Intended for participants of the women’s soccer team.</td>
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<td>ATHL 22A</td>
<td>PRESEASON CONDITIONING FOR WOMEN’S SOCCER</td>
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<td>The development of athletic skills and mental conditioning which is required to be successful in the intercollegiate sport of soccer.</td>
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<td>ATHL 22B</td>
<td>SPORT TECHNIQUES &amp; CONDITIONING FOR WOMEN’S SOCCER</td>
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<td>This course teaches and provides practice specific techniques and conditioning for the sport of soccer. This includes drills, weight and flexibility training, and cardio-respiratory development.</td>
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<td>ATHL 22C</td>
<td>FUNCTIONAL FITNESS FOR WOMEN’S SOCCER</td>
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<td>This course will provide advanced training and instruction in the use of weights for the sport of soccer.</td>
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<td>ATHL 22F</td>
<td>INTERCOLLEGIATE SOCCER II (WOMEN)</td>
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<td>Competitive intercollegiate soccer emphasizing athletic skill and strategy development and performance through conference and post-conference competition. Intended for participants of the women’s soccer team.</td>
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<td>ATHL 31</td>
<td>INTERCOLLEGIATE SOFTBALL I (WOMEN)</td>
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<td>Competitive intercollegiate softball emphasizing early season conditioning, development of skills and strategy, and team building through pre-conference and conference competition. Intended for participants of the women’s softball team with previous high school, club or collegiate softball playing experience.</td>
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ATHL 31A  PRESEASON CONDITIONING FOR SOFTBALL  2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
6 hours laboratory. (72 hours total per quarter.)
The development of athletic skills and mental conditioning which are required to be successful in the intercollegiate sport of softball.
FHGE: Lifelong Understanding  Transferable: CSU/UC

ATHL 31B  SPORT TECHNIQUES & CONDITIONING FOR SOFTBALL  2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
6 hours laboratory. (72 hours total per quarter.)
This course teaches and provides practical techniques and conditioning for the sport of softball. This includes drills, weight and flexibility training, and cardio-respiratory development.
FHGE: Lifelong Understanding  Transferable: CSU/UC

ATHL 31C  FUNCTIONAL FITNESS FOR SOFTBALL  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
3 hours laboratory. (36 hours total per quarter.)
This course will provide advanced training and instruction in the use of weights for the sport of softball.
FHGE: Lifelong Understanding  Transferable: CSU/UC

ATHL 31E  INTERCOLLEGIATE SOFTBALL  1 Unit
(WOMEN)
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
3 hours laboratory. (36 hours total per quarter.)
Competitive intercollegiate softball working toward personal and physical development, athletic scholarship, transfer, and career opportunities. Intended for participants of the women's softball team with previous high school, club or collegiate softball playing experience.
FHGE: Lifelong Understanding  Transferable: CSU/UC

ATHL 31F  INTERCOLLEGIATE SOFTBALL  2 Units
(WOMEN)
Degree & Credit Status: Degree-applicable credit course
Advisory: Limitation on enrollment: Athletic tryout for intercollegiate team selection is required to enroll with permission of the instructor.
Students will be required to have a physical prior to participation in the class. Students will be required to achieve and maintain sport-specific performance standards as evaluated by the instructor. Continued eligibility is determined by appropriate CCCAA academic and decorum rules.
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
6 hours laboratory. (72 hours total per quarter.)
Competitive intercollegiate softball emphasizing athletic skill and strategy development and performance through conference and post-conference competition. Intended for participants of the women's softball team with previous high school, club or collegiate softball playing experience.
FHGE: Lifelong Understanding  Transferable: CSU/UC

ATHL 31G  INTERCOLLEGIATE SOFTBALL  1 Unit
(MEN & WOMEN)
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
6 hours laboratory. (72 hours total per quarter.)
The development of athletic skills and mental conditioning are required to be successful in the intercollegiate sport of softball.
FHGE: Lifelong Understanding  Transferable: CSU/UC

ATHL 32  INTERCOLLEGIATE SWIMMING  3 Units
I (MEN & WOMEN)
Degree & Credit Status: Degree-applicable credit course
Advisory: Limitation on enrollment: Athletic tryout for intercollegiate team selection is required to enroll with permission of the instructor.
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Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
9 hours laboratory. (108 hours total per quarter.)
Competitive intercollegiate swimming emphasizing early season conditioning, development of skills and strategy, and team building through pre-conference and conference competition. Intended for participants of the men's/women's swimming team.
FHGE: Lifelong Understanding  Transferable: CSU/UC

ATHL 32A  PRESEASON CONDITIONING FOR SWIMMING  2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
6 hours laboratory. (72 hours total per quarter.)
The development of athletic skills and mental conditioning which is required to be successful in the intercollegiate sport of swimming.
FHGE: Lifelong Understanding  Transferable: CSU/UC

ATHL 32C  FUNCTIONAL FITNESS FOR SWIMMING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
3 hours laboratory. (36 hours total per quarter.)
This course will provide advanced training and instruction in the use of weights for the sport of swimming.
FHGE: Lifelong Understanding  Transferable: CSU/UC

ATHL 32F  INTERCOLLEGIATE SWIMMING  2 Units
II (MEN & WOMEN)
Degree & Credit Status: Degree-applicable credit course
Advisory: Limitation on enrollment: Athletic tryout for intercollegiate team selection is required to enroll with permission of the instructor.
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Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
6 hours laboratory. (72 hours total per quarter.)
Competitive intercollegiate swimming emphasizing athletic skill and strategy development and performance through conference and post-conference competition. Intended for participants of the men's/women's swimming team.
FHGE: Lifelong Understanding  Transferable: CSU/UC
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<th>Course</th>
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<th>Degree &amp; Credit Status</th>
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<td>ATHL 33</td>
<td>INTERCOLLEGIATE WATER POLO I (WOMEN)</td>
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<td>Degree-applicable credit course</td>
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<td>6 hours laboratory. (72 hours total per quarter.)</td>
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<td>Competitive intercollegiate water polo emphasizing early season conditioning, development of skills and strategy, and team building through pre-conference and conference competition. Intended for participants of the women's water polo team.</td>
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<td>ATHL 33A</td>
<td>PRESEASON CONDITIONING FOR WOMEN'S WATER POLO</td>
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<td>6 hours laboratory. (72 hours total per quarter.)</td>
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<td>The development of athletic skills and mental conditioning which is required to be successful in the intercollegiate sport of water polo.</td>
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<td>ATHL 33B</td>
<td>SPORT TECHNIQUES &amp; CONDITIONING FOR WOMEN'S WATER POLO</td>
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<td>This course teaches and provides practice specific techniques and conditioning for the sport of water polo. This includes drills, weight and flexibility training, and cardio-respiratory development.</td>
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<td>May be taken six times for credit.</td>
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<td></td>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<td>This course will provide advanced training and instruction in the use of weights for the sport of water polo.</td>
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<td>FHGE: Lifelong Understanding</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>ATHL 33F</td>
<td>INTERCOLLEGIATE WATER POLO II (WOMEN)</td>
<td>3</td>
<td>Degree-applicable credit course</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>May be taken six times for credit.</td>
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<td>May be taken six times for credit.</td>
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<td></td>
<td>9 hours laboratory. (108 hours total per quarter.)</td>
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<td>Competitive intercollegiate water polo emphasizing athletic skill and strategy development and performance through conference and post-conference competition. Intended for participants of the women’s water polo team.</td>
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<td>FHGE: Lifelong Understanding</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>ATHL 41A</td>
<td>INTERCOLLEGIATE SAND VOLLEYBALL I (WOMEN)</td>
<td>2</td>
<td>Degree-applicable credit course</td>
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<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>May be taken six times for credit.</td>
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<td></td>
<td>6 hours laboratory. (72 hours total per quarter.)</td>
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<td>Competitive intercollegiate sand volleyball emphasizing early season conditioning, development of skills and strategy, and team building through pre-conference and conference competition. Intended for participants of the women’s sand volleyball team.</td>
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<td>FHGE: Lifelong Understanding</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>ATHL 41B</td>
<td>INTERCOLLEGIATE SAND VOLLEYBALL II (WOMEN)</td>
<td>3</td>
<td>Degree-applicable credit course</td>
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<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td></td>
<td>9 hours laboratory. (108 hours total per quarter.)</td>
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<td>Competitive intercollegiate sand volleyball emphasizing athletic skill and strategy development and performance through conference and post-conference competition. Intended for participants of the women’s sand volleyball team.</td>
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<td>FHGE: Lifelong Understanding</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>ATHL 42</td>
<td>INTERCOLLEGIATE VOLLEYBALL I (WOMEN)</td>
<td>2</td>
<td>Degree-applicable credit course</td>
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<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>May be taken six times for credit.</td>
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<td></td>
<td>6 hours laboratory. (72 hours total per quarter.)</td>
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<td>Competitive intercollegiate volleyball emphasizing early season conditioning, development of skills and strategy, and team building through pre-conference and conference competition. Intended for participants of the women’s volleyball team.</td>
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<td>FHGE: Lifelong Understanding</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>ATHL 42B</td>
<td>SPORT TECHNIQUES &amp; CONDITIONING FOR WOMEN'S VOLLEYBALL</td>
<td>2</td>
<td>Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>May be taken six times for credit.</td>
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<td></td>
<td>6 hours laboratory. (72 hours total per quarter.)</td>
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<td>This course teaches and provides practice specific techniques and conditioning for the sport of volleyball. This includes drills, weight and flexibility training, and cardio-respiratory development.</td>
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<td>FHGE: Lifelong Understanding</td>
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<td>Transferable: CSU/UC</td>
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<td>Course Code</td>
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<tr>
<td>ATHL 42C</td>
<td>FUNCTIONAL FITNESS FOR WOMEN'S VOLLEYBALL</td>
<td>1 Unit</td>
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<tr>
<td>ATHL 42F</td>
<td>INTERCOLLEGIATE VOLLEYBALL II (WOMEN)</td>
<td>3 Units</td>
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<tr>
<td>ATHL 44</td>
<td>INTERCOLLEGIATE TENNIS I (MEN)</td>
<td>3 Units</td>
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<tr>
<td>ATHL 44A</td>
<td>PRESEASON CONDITIONING FOR MEN'S TENNIS</td>
<td>2 Units</td>
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<tr>
<td>ATHL 44B</td>
<td>SPORT TECHNIQUES &amp; CONDITIONING FOR MEN'S TENNIS</td>
<td>2 Units</td>
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<tr>
<td>ATHL 44C</td>
<td>FUNCTIONAL FITNESS FOR MEN'S TENNIS</td>
<td>1 Unit</td>
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<tr>
<td>ATHL 44F</td>
<td>INTERCOLLEGIATE TENNIS II (MEN)</td>
<td>2 Units</td>
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<tr>
<td>ATHL 45</td>
<td>INTERCOLLEGIATE TENNIS I (WOMEN)</td>
<td>3 Units</td>
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<tr>
<td>ATHL 45A</td>
<td>PRESEASON CONDITIONING FOR WOMEN'S TENNIS</td>
<td>2 Units</td>
<td></td>
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<tr>
<td>ATHL 45B</td>
<td>SPORT TECHNIQUES &amp; CONDITIONING FOR WOMEN'S TENNIS</td>
<td>2 Units</td>
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</table>

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
3 hours laboratory. (72 hours total per quarter.)
This course will provide advanced training and instruction in the use of weights for the sport of volleyball.
FHGE: Lifelong Understanding Transferable: CSU/UC

Degree & Credit Status: Degree-applicable credit course
Advisory: Limitation on enrollment: Athletic tryout for intercollegiate team selection is required to enroll with permission of the instructor. Students will be required to have a physical prior to participation in the class. Students will be required to achieve and maintain sport-specific performance standards as evaluated by the instructor. Continued eligibility is determined by appropriate CCCAA academic and decorum rules.
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
9 hours laboratory. (108 hours total per quarter.)
Competitive intercollegiate volleyball emphasizing athletic skill and strategy development and performance through conference and post-conference competition. Intended for participants of the women's volleyball team.
FHGE: Lifelong Understanding Transferable: CSU/UC

Degree & Credit Status: Degree-applicable credit course
Advisory: Limitation on enrollment: Athletic tryout for intercollegiate team selection is required to enroll with permission of the instructor. Students will be required to have a physical prior to participation in the class. Students will be required to achieve and maintain sport-specific performance standards as evaluated by the instructor. Continued eligibility is determined by appropriate CCCAA academic and decorum rules.
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
9 hours laboratory. (108 hours total per quarter.)
Competitive intercollegiate tennis emphasizing early season conditioning, development of athletic skills and mental conditioning which is required to be successful in the intercollegiate sport of tennis.
FHGE: Lifelong Understanding Transferable: CSU/UC

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
6 hours laboratory. (72 hours total per quarter.)
The development of athletic skills and mental conditioning which is required to be successful in the intercollegiate sport of tennis.
FHGE: Lifelong Understanding Transferable: CSU/UC

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
6 hours laboratory. (72 hours total per quarter.)
This course teaches and provides practice specific techniques and conditioning for the sport of tennis. This includes drills, weight and flexibility training, and cardio-respiratory development.
FHGE: Lifelong Understanding Transferable: CSU/UC
ATHL 45C  FUNCTIONAL FITNESS FOR WOMEN’S TENNIS  1 Unit

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
3 hours laboratory. (36 hours total per quarter.)

This course will provide advanced training and instruction in the use of weights for the sport of tennis.
FHGE: Lifelong Understanding Transferable: CSU/UC

ATHL 45F  INTERCOLLEGiate TENNIS II  2 Units (WOMEN)

Degree & Credit Status: Degree-applicable credit course
Advisory: Limitation on enrollment: Athletic tryout for intercollegiate team selection is required to enroll with permission of the instructor. Students will be required to have a physical prior to participation in the class. Students will be required to achieve and maintain sport-specific performance standards as evaluated by the instructor. Continued eligibility is determined by appropriate CCCAA academic and decorum rules.
Grade Type: Letter Grade or Pass/No Pass
May be taken six times for credit.
6 hours laboratory. (72 hours total per quarter.)

Competitive intercollegiate tennis emphasizing athletic skill and strategy development and performance through conference and post-conference competition. Intended for participants of the women’s tennis team.
FHGE: Lifelong Understanding Transferable: CSU/UC

ATHL 70R  INDEPENDENT STUDY IN ATHLETICS  1 Unit

ATHL 71R  2 Units
ATHL 72R  3 Units
ATHL 73R  4 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)

Provides an opportunity for students to expand their studies in Athletics beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable Transferable: CSU/UC

BIOLOGY

Biological and Health Sciences 650.949.7249 foothill.edu/biology/

BIOL 1A  PRINCIPLES OF CELL BIOLOGY  6 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: CHEM 1A or IAH.
Advisory: Students taking the biology majors’ sequence (BIOL 1A, 1B, 1C, 1D) are strongly advised to take the sequence in its entirety.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 6 hours laboratory. (120 hours total per quarter.)

An introduction to biological molecules, cellular structure and function, bioenergetics, the genetics of both prokaryotic and eukaryotic organisms, cell communication and signaling, the cell cycle, and elements of molecular biology. Intended for biology majors.
FHGE: Non-GE Applicable Transferable: CSU/UC
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Grade Type</th>
<th>Repeatable?</th>
<th>Corequisite</th>
<th>Prerequisite</th>
<th>Advisory</th>
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<tr>
<td>BIOL 9</td>
<td>ENVIRONMENTAL BIOLOGY</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable.</td>
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<td>CSU/UC</td>
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<tr>
<td>BIOL 10</td>
<td>GENERAL BIOLOGY: BASIC PRINCIPLES</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable.</td>
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<tr>
<td>BIOL 12</td>
<td>HUMAN GENETICS</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
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<tr>
<td>BIOL 13</td>
<td>MARINE BIOLOGY</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable.</td>
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<td>BIOL 14</td>
<td>HUMAN BIOLOGY</td>
<td>5</td>
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<td>Letter Grade or Pass/No Pass</td>
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<tr>
<td>BIOL 15</td>
<td>CALIFORNIA ECOLOGY/NATURAL HISTORY</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable.</td>
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<tr>
<td>BIOL 16</td>
<td>HUMAN ANATOMY &amp; PHYSIOLOGY I</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable.</td>
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<tr>
<td>BIOL 17</td>
<td>HUMAN ANATOMY &amp; PHYSIOLOGY II</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable.</td>
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<tr>
<td>BIOL 18</td>
<td>HUMAN ANATOMY &amp; PHYSIOLOGY III</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable.</td>
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An introduction to environmental biology and a survey of the biological and ecological principles needed to understand environmental issues. Global, national and local perspectives on current issues, such as resource use, pollution, biodiversity and impacts of human population growth. FHGE: Lifelong Understanding, Natural Sciences

- Laboratory: BIOL 9L

An introduction to marine biology. Concepts of aquatic and terrestrial ecosystems. FHGE: Natural Sciences

An introduction to human anatomy and physiology. Emphasis on integration of systems and homeostatic mechanisms. Physical and chemical basis of life, histology and integumentary, skeletal and muscular systems. Designed for majors that require fundamental background in human anatomy and physiology. FHGE: Non-GE Applicable

- Laboratory: BIOL 14L

An introduction to human biology. The evolution and biological unity of the human species and of all life forms; American and global patterns of human biological diversity; reproduction and heredity; how human organ systems function; humans and their environment; the uses and misuses of the scientific method; the scientific and biological bases for human equality. FHGE: Natural Sciences

An introduction to life on the seashore. FHGE: Natural Sciences

An introduction to biological topics drawn from California marine life. Conceptual development of seashore, estuaries, coral reefs, kelp forests, and pelagic life as interrelated ecosystems. FHGE: Natural Sciences

An introduction to environmental biology through laboratory and field experiments, examination of local examples illustrating ecological concepts, use of sampling techniques to assess environmental quality, and student research of environmental topics. FHGE: Natural Sciences

An introduction to building human health, disease, and medical technology. FHGE: Non-GE Applicable

An introduction to human anatomy. FHGE: Non-GE Applicable

An introduction to human anatomy. FHGE: Non-GE Applicable
BIOL 41 MICROBIOLOGY 6 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CHEM 12A or 30A or equivalent.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 6 hours laboratory. (120 hours total per quarter.)
Morphology and physiology of bacteria, fungi and viruses. Mechanisms of pathogenicity, host-parasite relationships, the immune response and principles of disease transmission. Techniques of microbial control including sterilization, aseptic procedures, use of disinfectants, antiseptics and chemotherapy.
FHGE: Natural Sciences Transferable: CSU/UC

BIOL 45 INTRODUCTION TO HUMAN NUTRITION 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: BIOL 1A or 40A.
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to the medical aspects of nutrition, intended for students wishing to pursue a career in health care. Biological function and chemical classification of nutrients. Nutritional needs throughout the lifespan. Effects of nutritional deficiencies and excesses. Recommended nutrient intakes and the role of diet in the development of chronic disease.
FHGE: Non-GE Applicable Transferable: CSU/UC

BIOL 54H HONORS INSTITUTE SEMINAR IN BIOLOGY 1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in BIOL 34 or 34H.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
A seminar in directed readings, discussions and projects in biology. Specific topic to be determined by the instructor. This advanced honors course is open to all majors. This course satisfies one of the two honors seminar requirements for the Honors Scholar program.
FHGE: Non-GE Applicable Transferable: CSU/UC

BUSINESS

Business and Social Sciences
650.949.7322 foothill.edu/business/

BUSI 11 INTRODUCTION TO INFORMATION SYSTEMS 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; knowledge of Excel; not open to students with credit in CIS 10 or 60.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to the concepts of management and information systems especially as used in business and similar organizations. Covers the need for information, how computers are used in business and other organizations to provide information, elements of computer hardware and software, software development, data storage and communication, and the social impact of computers. Hands-on introduction to personal productivity software such as word processing, spreadsheet, database, and presentation applications.
FHGE: Non-GE Applicable Transferable: CSU/UC

BUSI 12 INTRODUCTION TO DATA ANALYTICS & BUSINESS DECISIONS 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course is an overview of data analytics and their use in making business decisions, covering a broad selection of topics along the life-cycle of data analytics (business objective; data collection, cleansing, transformation; data analysis, data visualization/storytelling; data-based decision making). Professional skills, such as communication, presentation, and data storytelling, will be presented. Students will acquire a basic working knowledge of data analytics through hands-on projects and study in a variety of business, engineering, social sciences, or life sciences domains. Issues of ethics, leadership, and teamwork will be highlighted.
FHGE: Non-GE Applicable Transferable: CSU/UC
BUSI 18       BUSINESS LAW I 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESLL 249; UC will award transfer credit for either BUSI 18 or BUSI 19, not both.
Grade Type: Letter Grade or Pass/No Pass Not Repeatable.
4 hours lecture. (60 hours total per quarter.)
Introduction to law applicable to business. Social forces and the law; source of law; agencies for enforcement; and court systems and procedures. California law applicable to contracts, tort negligence, agency, and the Uniform Commercial Code. Contemporary Legal Issues.
FHGE: Non-GE Applicable Transferable: CSU/UC

BUSI 19       BUSINESS LAW II 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: BUSI 18; UC will award transfer credit for either BUSI 18 or BUSI 19, not both.
Grade Type: Letter Grade or Pass/No Pass Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Law of sales, warranty and product liability, partnerships, corporations, personal property, and bailments. The Uniform Commercial Code as related to negotiable instruments and secured transactions, and creditor-debtor rights.
FHGE: Non-GE Applicable Transferable: CSU/UC

BUSI 22       PRINCIPLES OF BUSINESS 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in BUSI 22H or 52.
Grade Type: Letter Grade or Pass/No Pass Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Examination of the principles and functions of business and the objectives and operations of the corporate and small business managerial decision-making process. The course examines the relationship between businesses and consumers, internal and external stakeholders and how those relationships impact business operations. The course topics include the impact of globalization on business operations, and how economic, political, legal, and social issues impact business operations. In addition, the course covers basic business and corporate ethics and social responsibility topics.
FHGE: Social & Behavioral Sciences Transferable: CSU/UC

BUSI 22H     HONORS PRINCIPLES OF BUSINESS 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in BUSI 22 or 52.
Grade Type: Letter Grade or Pass/No Pass Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Examination of the principles and functions of business and the objectives and operations of the corporate and small business managerial decision-making process. The course examines the relationship between businesses and consumers, internal and external stakeholders and how those relationships impact business operations. The course topics include the impact of globalization on business operations, and how economic, political, legal, and social issues impact business operations. In addition, the course covers basic business and corporate ethics and social responsibility topics. As an honors course, this course will use advanced teaching methods and current real-world business situations to enhance and deepen student learning of critical business concepts and frameworks. With an emphasis on research and analysis, students will apply critical thinking skills and business concepts to develop their knowledge of how businesses succeed within today’s global business environment.
FHGE: Social & Behavioral Sciences Transferable: CSU/UC

BUSI 53       SURVEY OF INTERNATIONAL BUSINESS 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in BUSI 53 or BUSI 20.
Grade Type: Letter Grade or Pass/No Pass Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to the global commercial community, theory and practice. Exploration of trade and development with the Pacific Rim; Eastern/Western Europe, Third World and developing nations. Major economic, social, political, cultural forces directing the competitive business environment. Examination of the full range of international commercial activities, marketing, logistics, research, risk analysis, and global corporate ethics and social responsibility.
FHGE: Social & Behavioral Sciences Transferable: CSU

BUSI 54       FINANCE 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Elementary Algebra or equivalent; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESLL 249; UC will award transfer credit for either BUSI 54 or BUSI 184, not both.
Grade Type: Letter Grade or Pass/No Pass Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Designed to help students understand the impact of financial decisions on their personal, professional, and community lives. More specifically, the course will discuss personal finance and quantitative reasoning concepts, frameworks, and techniques to plan, implement, and evaluate financial strategies and tactics. Topics will also include the time value of money, major consumer purchases (e.g., home, car, student loans, credit cards), retirement planning, investment options and their interrelationship with psychological, sociological, and economic factors. The course will culminate with the development of a comprehensive personal financial plan and simulate investment, retirement, tax, insurance, credit, and other financial decisions. The long-term objective is for students to develop a critically-reflective and adaptive capacity for life-long financial decision-making.
FHGE: Non-GE Applicable Transferable: CSU/UC

BUSI 55       COMMERCIAL CODE 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: BUSI 18; UC will award transfer credit for either BUSI 18 or BUSI 55.
Grade Type: Letter Grade or Pass/No Pass Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to law applicable to business. Social forces and the law; source of law; agencies for enforcement; and court systems and procedures. California law applicable to contracts, tort negligence, agency, and the Uniform Commercial Code. Contemporary Legal Issues.
FHGE: Non-GE Applicable Transferable: CSU/UC

BUSI 57       PRINCIPLES OF ADVERTISING 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESLL 249; not open to students with credit in ADVT 57 or BUSI 81.
Grade Type: Letter Grade or Pass/No Pass Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to the relationship between advertising and society, and consumer and business. Analysis of markets and direction of advertising campaigns toward them. Selection of media. Evaluation and proper use of the creative aspects of advertising. Actual creation of an advertising campaign and pro-forma budget.
FHGE: Social & Behavioral Sciences Transferable: CSU

BUSI 59       PRINCIPLES OF MARKETING 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESLL 249; not open to students with credit in BUSI 59.
Grade Type: Letter Grade or Pass/No Pass Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Contemporary marketing developments and applications relative to business activities that determine customer demand for products and services. Focus on market planning strategy, determining the right product, price, distribution and promotion elements and evaluating the results of effective marketing decision-making from both a marketer's and a consumer’s perspective.
FHGE: Social & Behavioral Sciences Transferable: CSU

FINANCE
BUSI 59A  WEB MARKETING  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: BUSI 59B or equivalent coursework or experience; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Primary focus of this course will be on marketing strategies and techniques to help e-businesses reach potential customers, drive traffic to generate customer to e-business interaction, convert leads to sales, and to maintain customer relationships over time. This course gives students a deeper understanding of the part social media plays in a digital marketing strategy. Students will learn about different platforms and their best practices. Students will create a social media strategy.
FHGE: Non-GE Applicable  Transferable: CSU

BUSI 59B  E-BUSINESS  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Foundations and principles of electronic commerce and doing business on the internet. Topics include e-commerce models, value and supply chains, business strategy, electronic data interchange (EDI), electronic payments and digital currency, integrating channels of business (walk-in, mail, phone, internet), e-marketing, intranets and extranets, security risks and legal issues in e-commerce, and Electronic Document Management Systems (EDMS). Current topics about latest e-business trends will be discussed, including peer-to-peer commerce, public and private exchanges, e-hubs and e-marketplaces, technology trends in enterprise computing, including web services and knowledge management, and global e-commerce infrastructure.
FHGE: Non-GE Applicable  Transferable: CSU

BUSI 59C  MARKETING CONTENT STRATEGY & BRANDING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; basic internet skills and an understanding of Microsoft Office applications are recommended.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Focused on branding and content strategy, this course aims to push students to explore concepts such as consumer psychology and behavior, content and channel creation, visual design and search engine optimization. Students will have the opportunity to practice their writing and communication skills, which are both vital for digital marketing.
FHGE: Non-GE Applicable  Transferable: CSU

BUSI 59D  MARKET ANALYTICS & PERFORMANCE OPTIMIZATION  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: BUSI 51; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Focusing on key performance indicators (KPIs), this course aims to give students the skills needed to analyze results of marketing efforts. Students will learn about factors that drive conversion and how to optimize their efforts using data and A/B testing. Students will be assessed through projects that give them an opportunity to get hands-on experience using spreadsheets, Google Analytics and analyzing an A/B test.
FHGE: Non-GE Applicable  Transferable: CSU

BUSI 59E  EMAIL MARKETING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; basic internet skills and an understanding of Microsoft Office applications are recommended.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course offers a deep dive into the world of email marketing, an incredibly effective marketing channel that can deliver great results for companies. In this course, students will learn about the role of email marketing in a company’s marketing campaign, what stages of the customer journey email marketing is suited for and best practices for email visuals and copy. The course will also touch upon more complex email practices, such as automation and how to outline an email drip campaign.
FHGE: Non-GE Applicable  Transferable: CSU

BUSI 60  FUNDAMENTALS OF FINANCE  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MATH 105.
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
This course provides an introduction to the fundamentals of financial analysis and applications to business challenges in valuation, risk analysis, corporate investment decisions, and basic security analysis and investment management. The four major sections of the course are: (A) an introduction to the financial system, financial statement analysis; (B) Interest Rates and Valuing Cash Flows: time value of money; interest rates; valuation of stocks, bonds; (C) Valuation of the Firm: Investment Decision Rules, Fundamentals of Capital Budgeting, Stock Valuation (NPV); and (D) Introduction to Risk and Return: risk and return; systemic risk; Portfolio Theory, CAPM, WACC.
FHGE: Non-GE Applicable  Transferable: CSU

BUSI 61  INVESTMENT FUNDAMENTALS  3 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
FHGE: Non-GE Applicable  Transferable: CSU

BUSI 70  BUSINESS & PROFESSIONAL ETHICS  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course will also touch upon more complex email practices, such as automation and how to outline an email drip campaign. Students will learn about factors that drive conversion and how to optimize their efforts using data and A/B testing. Students will be assessed through projects that give them an opportunity to get hands-on experience using spreadsheets, Google Analytics and analyzing an A/B test.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUSI 70R</td>
<td>INDEPENDENT STUDY IN BUSINESS</td>
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<td>BUSI 71R</td>
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<td>BUSI 72R</td>
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<td>BUSI 73R</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>3-12 hours laboratory per week. (36-144 hours total per quarter.)</td>
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<td>Provides an opportunity for the student to expand their studies in Business beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.</td>
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<td>Transferable: CSU</td>
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<tr>
<td>BUSI 87</td>
<td>HUMAN RESOURCES MANAGEMENT</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 &amp; ESLL 249.</td>
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<td>5 hours lecture. (60 hours total per quarter.)</td>
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<td>This course is a comprehensive study of human resource management in organizations, including human resource planning; employment legislation; recruitment and selection; training and development; compensation and benefits; performance appraisal and career management; managing labor relations; safety, health, and well-being; and motivation and enhancing performance. The course will explore topics including values, ethical issues, leadership and communication, conflict, work design, and organizational culture.</td>
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<td>BUSI 88A</td>
<td>FOUNDATIONS OF LEADERSHIP</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>4 hours lecture. (48 hours total per quarter.)</td>
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<td>This course explores the nature of leadership in a variety of areas and emphasizes the business field, explaining the difference between leadership and management as it applies to both corporate human talent development and in entrepreneurial contexts. Students will use an integrated and interdisciplinary approach, experiential exercises, and critically-reflective practices to identify and develop communication, interpersonal, critical thinking, and other selected personal attributes. The course will emphasize team and project management, negotiation and conflict resolution, systems-thinking, pattern-recognition, problem-solving, judgement and risk-taking skills, as well as ethics and grit. Students will build the capacity to deal more effectively with our ever-changing, ambiguous, uncertain, and interdependent world.</td>
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<td>BUSI 90A</td>
<td>PRINCIPLES OF MANAGEMENT</td>
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<td>4 hours lecture. (48 hours total per quarter.)</td>
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<td>Introduction to the study of the principles and functions of management as an important part of the social, political and economic environment. The following functional areas of management include: planning and organizing, control and monitoring, strategy and leadership, legal and ethical issues affecting business today.</td>
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<tr>
<td>BUSI 91L</td>
<td>INTRODUCTION TO BUSINESS INFORMATION PROCESSING</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: Not open to students with credit in BUSI 10.</td>
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<td>4 hours lecture. (48 hours total per quarter.)</td>
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<td>Knowledge and understanding of business uses of computer and information processing. Introduction to computer hardware and software and popular operating systems. Hands-on experience in the use of word processing software, spreadsheet software, presentation graphics software, database software and communications software.</td>
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<td>BUSI 95</td>
<td>ENTREPRENEURSHIP-THE BUSINESS PLAN</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>4 hours lecture. (48 hours total per quarter.)</td>
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<td>This course focuses on the business plan as a necessary component of starting a small business. The course discusses the phases and components in the development of the business plan, including determining actual content, reviewing examples, creating a comprehensive plan, and pitching to potential investors.</td>
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<td>BUSI 96</td>
<td>ENTREPRENEURSHIP-STARTING &amp; MANAGING A SMALL BUSINESS</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: BUSI 95; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 &amp; ESLL 249.</td>
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<td>Not Repeatable</td>
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<td>3 hours lecture. (36 hours total per quarter.)</td>
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<td>Hands-on course introducing the broad range of skills needed to start-up and maintain a small business, an entrepreneurial venture, or a social entrepreneurship project. In this class, students begin with a well-planned business concept (business plan or business model) and apply fundamental entrepreneurial techniques to successfully initiate their business, and ultimately identify critical actions required to succeed. Areas of discussion will include legal, financial, marketing, operational, personnel, with a specific focus on bringing students' business plans to life.</td>
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Counseling and Student Services
650.949.7423 foothill.edu/counseling/

CAREER LIFE PLANNING

CRLP 7  SELF-ASSESSMENT  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: May not be concurrently enrolled in CRLP 7; not open to stu-
dents with credit in CRLP 70.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Comprehensive approach to career and life planning. Students will explore
their individual skills, interests, values, and personality style as they relate
to career choice. This intensive career investigation will also encompass
lifestyle assessment like the influence of career choice on the family unit,
decision making, goal-setting, job search strategies, resume writing and
interviewing skills. This course is helpful to people considering a career
change or undecided about a college major.
FHGE: Lifelong Understanding Transferable: CSU

CRLP 71  EXPLORING CAREER FIELDS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: May not be concurrently enrolled in CRLP 7.
Grade Type: Pass/No Pass Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Explore career options compatible with student's strengths and interests.
Using resources on the campus as well as on the Internet and in commu-
nities to investigate specific career choices, researching job descriptions,
desired employee characteristics, training/education requirements, salary
ranges and employment trends.
FHGE: Non-GE Applicable Transferable: CSU

CHEMISTRY

CHEM 1A  GENERAL CHEMISTRY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: Satisfactory score on the chemistry placement test or CHEM
25; MATH 105 or equivalent.
Advisory: MATH 48A or equivalent Precalculus I course; concurrent enroll-
ment in ESLL 125 or ENGL 209; not open to students with credit in CHEM
1AH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 6 hours laboratory. (108 hours total per quarter.)
Fundamental chemical principles with an emphasis on physical and chemical
properties, stoichiometry, chemical reaction types, kinetic molecular theo-
ry, thermochemistry, modern atomic theory and atomic structure, chemical
bonding and bonding theory, and molecular shapes. Laboratory component
parallels lecture topics and also includes chemical nomenclature, basic
chemical equations, stoichiometry, unknown analysis, and fundamentals of
oxidation and reduction.
FHGE: Natural Sciences Transferable: CSU/UC

CHEM 1AH  HONORS GENERAL CHEMISTRY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: Satisfactory score on the chemistry placement test or CHEM
25; MATH 105 or equivalent; Honors Institute participant.
Advisory: MATH 48A or equivalent Precalculus I course; not open to stu-
dents with credit in CHEM 1A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 6 hours laboratory. (108 hours total per quarter.)
Fundamental chemical principles with an emphasis on physical properties
and their mathematical modeling and interpretation. As an honors course,
the treatment of the chemical topics will be at a higher level mathematically
and conceptually. Students are expected to have a high degree of com-
petency in mathematics and advanced reasoning skills. Topics include: The
atom in modern chemistry; chemical formulas, equations, stoichiometry
and theoretical yields; classical models of atomic bonding, electron shells,
and molecular shapes; the behavior of gases, gas laws, kinetic molecular
theory, molecular collisions; solids, liquids and phase transitions, inter-
molecular forces, phase diagrams; thermodynamic processes and ther-
mochemistry, heat capacity and colorimetry, reversible processes in ideal
gases; spontaneous processes and thermodynamic systems.
FHGE: Non-GE Applicable Transferable: CSU/UC

CHEM 1B  GENERAL CHEMISTRY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CHEM 1A or 1AH.
Advisory: MATH 48B or equivalent Precalculus II course; not open to stu-
dents with credit in CHEM 1BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 6 hours laboratory. (108 hours total per quarter.)
Kinetic molecular theory and gas laws, intermolecular forces, chemical
kinetics, equilibria, behavior of acids and bases, acid/base equilibrium, and
classical thermodynamics. Laboratory parallels lecture topics and includes
computer graphing techniques, chemical kinetics, equilibrium measure-
ments, heat transfer experiments, thermodynamics of an equilibrium
system, vapor pressure of liquids.
FHGE: Non-GE Applicable Transferable: CSU/UC
### CHEM 9
**CHEMISTRY OF COOKING**
5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Elementary Algebra or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
This course will use kitchen science and cooking to introduce fundamental principles of chemistry. Concepts include atomic theory; stoichiometry; acid-base reactions; the molecular structure of food compounds; heat transfer and cooking methods; egg foams, protein structure and denaturation; gas laws; pressure cooking and the Maillard reaction for meats; the molecular basis of aroma and flavor; chemical reactions involved in baking; caramelization of sugars and crystallization in chocolate. Laboratory experiments will utilize both common chemistry instrumentation and kitchen equipment.

**FHGE:** Natural Sciences
Transferable: CSU/UC

### CHEM 10C
**GENERAL CHEMISTRY & QUALITATIVE ANALYSIS**
5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CHEM 1B or 1B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

3 hours lecture, 6 hours laboratory. (108 hours total per quarter.)
Aqueous ionic equilibria of buffers, solubility product constants and formation constants; properties of solutions, including factors affecting solubility, energy changes in the solution process and colligative properties; electrochemistry, including the thermodynamics of voltaic cells; introduction to coordination chemistry and bonding theory; nuclear chemistry with emphasis on applications; and, time permitting, an introduction to modern materials. Laboratory parallels lecture topics with an introduction to qualitative inorganic analysis.

**FHGE:** Non-GE Applicable
Transferable: CSU/UC

### CHEM 12A
**ORGANIC CHEMISTRY**
4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CHEM 1C.
Corequisite: Concurrent enrollment or prior completion of laboratory component to course (CHEM 12AL or 13AH).
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture. (48 hours total per quarter.)
This course is the first of a three quarter course describing the chemistry of organic (carbon containing) compounds. Emphasis on structure-reactivity relationships and mechanisms of functional group transformations. For science majors and students pursuing professional careers in dentistry, medicine, pharmacy, or veterinary medicine. Generally not appropriate for nursing majors (see CHEM 30B).

**FHGE:** Non-GE Applicable
Transferable: CSU/UC

### CHEM 12AL
**ORGANIC CHEMISTRY LABORATORY**
2 Units
Degree & Credit Status: Degree-applicable credit course
Corequisite: Completion of or concurrent enrollment in CHEM 12A.
Advisory: Not open to students with credit in CHEM 13AH.
Grade Type: Letter Grade Only
Not Repeatable.

6 hours laboratory. (72 hours total per quarter.)
Laboratory course to accompany CHEM 12A. Intended to introduce students to laboratory techniques common in modern synthetic organic chemistry. Students will work on both standard preparative scale and microscale to synthesize, isolate, purify and characterize organic compounds.

**FHGE:** Non-GE Applicable
Transferable: CSU/UC

### CHEM 12B
**ORGANIC CHEMISTRY**
4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: CHEM 12A and CHEM 12AL or 13AH.
Corequisite: Concurrent enrollment or prior completion of laboratory component to course (CHEM 12BL or 13BH).
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture. (48 hours total per quarter.)
This course is the continuation of CHEM 12A. Emphasis is on structure-reactivity relationships of organic compounds, mechanisms of functional group transformations, and synthesis of organic target compounds from simple precursors. For chemistry, biological science, environmental science majors, and for pre-professional students in dentistry, medicine, pharmacy, veterinary medicine or any other interested students who have mastered the prerequisites.

**FHGE:** Non-GE Applicable
Transferable: CSU/UC

### CHEM 12BL
**ORGANIC CHEMISTRY LABORATORY**
2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CHEM 12AL or 13AH.
Corequisite: Concurrent enrollment or prior completion of laboratory component to course (CHEM 12B or 13BH).
Advisory: Not open to students with credit in CHEM 13AH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

6 hours laboratory. (72 hours total per quarter.)
Laboratory course to accompany CHEM 12B. Emphasis is on spectroscopic methods for the structure elucidation of organic compounds. Provides extensive practice in the synthesis, purification, isolation and characterization of organic target molecules. For chemistry and other STEM majors, and for pre-professional students in dentistry, medicine, pharmacy, veterinary medicine or any other interested students who have mastered the prerequisites.

**FHGE:** Non-GE Applicable
Transferable: CSU/UC
CHEM 12C  ORGANIC CHEMISTRY  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: CHEM 12B and CHEM 12BL or 13BH.
Corequisite: Concurrent enrollment or prior completion of laboratory com-
ponent to course (CHEM 12CL or 13CH).
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
The third and final quarter of Organic Chemistry expands the study of
functional groups to include ketones, aldehydes, carboxylic acids and its
derivatives, and amines. Also introduces the chemistry of poly-functional,
biologically active molecules such as proteins and carbohydrates. Continued
emphasis on structure-reactivity relationships, mechanisms of reaction
and multi-step syntheses. For chemistry and other STEM majors as well as
any pre-professional students studying for careers in dentistry, medicine,
pharmacy, veterinary medicine and for any other interested students who
have mastered the prerequisites.
FHGE: Non-GE Applicable  Transferable: CSU/UC

CHEM 12CL  ORGANIC CHEMISTRY  2 Units
LABORATORY
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CHEM 12B or 13BH.
Corequisite: Completion of or concurrent enrollment in CHEM 12C.
Advisory: Not open to students with credit in CHEM 13CH.
Grade Type: Letter Grade Only
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
Laboratory course to accompany CHEM 12C. Intended to strengthen skill
in application of laboratory techniques, and to encourage independent
work. Emphasis is on chemical reactions relevant to CHEM 12C, multi-step
syntheses, and identification of unknowns.
FHGE: Non-GE Applicable  Transferable: CSU/UC

CHEM 13AH  HONORS ORGANIC CHEMISTRY  3 Units
LABORATORY
Degree & Credit Status: Degree-applicable credit course
Prerequisites: CHEM 1C or equivalent; Honors Institute participant.
Corequisite: CHEM 12A.
Advisory: Not open to students with credit in CHEM 12AL.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 6 hours laboratory. (84 hours total per quarter.)
Honors laboratory course to accompany CHEM 12A. Intended to introduce
students to laboratory techniques common in modern synthetic organ-
ic chemistry. Emphasis is on chemical reactions relevant to CHEM 12A
content. Similar to CHEM 12AL, this honors course adds critical analysis of
primary literature, and requires additional writing assignments and group
presentations.
FHGE: Non-GE Applicable  Transferable: CSU/UC

CHEM 13BH  HONORS ORGANIC CHEMISTRY  3 Units
LABORATORY
Degree & Credit Status: Degree-applicable credit course
Prerequisites: CHEM 12A and CHEM 12AL or 13AH; Honors Institute
participant.
Corequisite: CHEM 12B.
Advisory: Not open to students with credit in CHEM 12BL.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 6 hours laboratory. (84 hours total per quarter.)
Honors laboratory course to accompany CHEM 12B. Intended to introduce
students to laboratory techniques common in modern synthetic organ-
ic chemistry. Emphasis is on chemical reactions relevant to CHEM 12B
content. Similar to CHEM 12BL, this honors course adds critical analysis of
primary literature, and requires additional writing assignments and group
presentations.
FHGE: Non-GE Applicable  Transferable: CSU/UC

CHEM 13CH  HONORS ORGANIC CHEMISTRY  3 Units
LABORATORY
Degree & Credit Status: Degree-applicable credit course
Prerequisites: CHEM 12B and CHEM 12BL or 13BH; Honors Institute
participant.
Corequisite: CHEM 12C.
Advisory: Not open to students with credit in CHEM 12CL.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 6 hours laboratory. (84 hours total per quarter.)
Honors laboratory course to accompany CHEM 12C. Intended to introduce
students to research methods, improve skill in application of laboratory
techniques, and strengthen quantitative reasoning. Students work on
challenging projects taken from the primary literature. Emphasis is on
Physical-Organic Chemistry, Multi-step synthesis, and chemical reactions
relevant to CHEM 12C.
FHGE: Non-GE Applicable  Transferable: CSU/UC

CHEM 25  FUNDAMENTALS OF CHEMISTRY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 105 or equivalent.
Advisory: Concurrent enrollment in ESLL 125 or ENGL 209; UC will grant
transfer credit for a maximum of one course from the following: CHEM 25,
30A or 30B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
The course includes basic chemical laboratory techniques and methods, a
survey of important chemical principles with emphasis on problem solving,
and a description of the elements and their compounds. Intended for stu-
dents who wish to meet general education requirements in physical science
or need background preparation for CHEM 1A.
FHGE: Natural Sciences  Transferable: CSU/UC

CHEM 30A  SURVEY OF INORGANIC & ORGANIC CHEMISTRY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Elementary Algebra or equivalent.
Advisory: UC will grant transfer credit for a maximum of one course from the
following: CHEM 25, 30A or 30B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
An introductory course covering basic principles of chemistry more de-
scriptive than quantitative in emphasis. Topics include atomic structure, the
periodic table, the three states of matter, energy, chemical bonding in ionic
and molecular compounds, nomenclature, measurement and the metric
system, chemical reactions and equations, solutions, acids, bases, salts and
electrolyte systems. Primarily intended for students entering the allied
health field, including: nursing, veterinary technology, dental assistant,
dental hygiene, biotechnology, primary care associate, radiation therapy
technology, radiologic technology, respiratory therapy, and pharmaceutical
technology.
FHGE: Natural Sciences  Transferable: CSU/UC
CHEM 30B  SURVEY OF ORGANIC & BIOCHEMISTRY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CHEM 30A.
Advisory: UC will grant transfer credit for a maximum of one course from the following: CHEM 25, 30A or 30B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (84 hours total per quarter.)
Basic principles of organic chemistry and biological chemistry. Topics include organic chemistry nomenclature, functional groups, and an introduction to structure and properties of carbohydrates, lipids, nucleic acids, proteins and enzymes. An overview of metabolism will also be given. Primarily intended for students entering the allied health field, including: nursing, dental hygiene, and biotechnology.
FHGE: Non-GE Applicable  Transferable: CSU/UC

CHILD DEVELOPMENT

Business and Social Sciences
650.949.7322  foothill.edu/childdevelopment/

CHLD 1  CHILD GROWTH & DEVELOPMENT: PRENATAL THROUGH EARLY CHILDHOOD  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in CHLD 55.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Development of the child from prenatal life through early childhood. This introductory course examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through early childhood. Emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

CHLD 2  CHILD GROWTH & DEVELOPMENT II: MIDDLE CHILDHOOD THROUGH ADOLESCENCE  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Development of the child from middle childhood through adolescence. This introductory course examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from middle childhood through adolescence. Emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

CHLD 8  CHILD, FAMILY & COMMUNITY  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in CHLD 88.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An examination of the developing child in a societal context focusing on interrelatship of family, school, and community, and emphasizing historical and sociocultural factors. The processes of socialization and identity development will be highlighted, showing the importance of respectful, reciprocal relationships that support and empower families.
FHGE: Non-GE Applicable  Transferable: CSU/UC

CHLD 50A  INFANT/TODDLER DEVELOPMENT  3 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Human growth and development from birth to three years within the context of the young child’s family, culture and community. Examination of developmental theory within the three distinct ages of infancy. Integration of physical, cognitive, language, social and emotional domains emphasizing the importance of relationships.
FHGE: Non-GE Applicable  Transferable: CSU

CHLD 51A  AFFIRMING DIVERSITY IN EDUCATION  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; not open to students with credit in CHLD 11.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course will examine the development of social identities in diverse societies, including theoretical and practical implications affecting young children, families, programs, teaching, education and schooling. Culturally relevant and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. Course involves self-reflection of one’s own understanding of educational principles in integrating anti-goals in order to better inform teaching practices and/or program development.
FHGE: American Cultures & Communities  Transferable: CSU

CHLD 53NC  SUPPORTING CHILDREN WITH SPECIAL NEEDS IN CHILDREN’S PROGRAMS  3 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Strategies to work effectively with all children in early childhood programs. Focus on infants, toddlers and preschoolers with disabilities, developmental delays or special health care needs. Best practices from early childhood education and early childhood special education/early intervention will be embedded throughout. Making adaptations, modifications and accommodations in the environment, with materials and to teaching strategies, for individual children in group settings. Working in collaboration with additional support professionals, community resources, IFSP and IEP teams and family members.
FHGE: Non-GE Applicable  Transferable: CSU
CHLD 53NP  DEVELOPMENT OF CHILDREN WITH SPECIAL NEEDS  3 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Introduction to a variety of diagnosed disabilities and other special needs conditions that cause children, birth through age 8, to show atypical development. Laws and service provisions, social and educational implications, culture and family dynamics in the context of the larger community will be discussed.
FHGE: Non-GE Applicable  Transferable: CSU

CHLD 54A  DEVELOPING A HEALTHY ORGANIZATIONAL CLIMATE IN EDUCATION  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Investigation and analysis of the ten dimensions of organizational climate which help shape the quality of work life for educators. Students will assess the organizational climate of their own education programs and develop specific strategies to create an excellent workplace. Discussion of unique role perspective plays in shaping work attitudes and behavior.
FHGE: Non-GE Applicable  Transferable: CSU

CHLD 54B  THE RIGHT FIT: RECRUITING, SELECTING & ORIENTING STAFF  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Students will determine the criteria to maximize the "fit" between individuals, the job and the program. Course breaks down the teacher recruitment, interviewing, screening, selection, and employee orientation processes into manageable components. Practical and effective techniques to find teaching staff will be discussed. Students will design a continuous recruitment plan to implement in their own workplace in order to be well prepared when future employee turnover occurs.
FHGE: Non-GE Applicable  Transferable: CSU

CHLD 54C  LEADERSHIP IN ACTION: HOW EFFECTIVE DIRECTORS GET THINGS DONE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Course provides an overview of educational leadership from five perspectives: leadership as a role, leadership tasks and functions, leadership as a repertoire of skills and competencies, leadership traits and dispositions, and leadership style. Course examines the link between effective leadership and program quality.
FHGE: Non-GE Applicable  Transferable: CSU

CHLD 54D  FROM THE INSIDE OUT: THE POWER OF REFLECTION & SELF-AWARENESS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Course will help educators learn the value of reflective practice and how to become a self-mentor. Participants will reflect on how their past experiences shape present perceptions and future aspirations. Topics discussed will include identifying one's preferred perceptual modality, learning style, psychological type, practical strategies for reducing stress and avoiding burnout in the education field. Intended for directors, principals, leaders, teachers, board members and parent volunteers.
FHGE: Non-GE Applicable  Transferable: CSU

CHLD 56  OBSERVATION & ASSESSMENT  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: CHLD 1 and 56N.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Focus on training in observation and assessment techniques in natural settings using a range of tools. Conducting formal observations and assessments that will guide development of curriculum. Child portfolio development and preparation for teacher-parent conferences. Recording strategies, rating systems, and multiple assessment methods are explored.
FHGE: Non-GE Applicable  Transferable: CSU

CHLD 56N  PRINCIPLES & PRACTICES OF TEACHING YOUNG CHILDREN  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An examination of the underlying theoretical principles of developmentally appropriate practices applied to early childhood programs and environments. Emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development of the child. Includes a review of the historical roots of early childhood programs and the evolution of the professional practices promoting advocacy, ethics and professional identity.
FHGE: Non-GE Applicable  Transferable: CSU

CHLD 59  WORKING WITH SCHOOL-AGE CHILDREN  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Review of developmental characteristics of children ages five to 12 years. Role of adult in high quality school-age care. Planning and implementing developmentally appropriate curriculum and behavior management. Creating environment program standards and using quality standards guides for evaluation. Specifically intended for those who work or desire to work with school-age children in a variety of after-school, recreation and summer day camps.
FHGE: Non-GE Applicable  Transferable: CSU
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHLD 63N</td>
<td>ARTISTIC &amp; CREATIVE DEVELOPMENT</td>
<td>3</td>
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<tr>
<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade Only</td>
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<td>Not Repeatable.</td>
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<td>3 hours lecture. (36 hours total per quarter.)</td>
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<td>Artistic awareness and creativity in young children. Uses a variety of media to promote children's sensitivity to, and use of, various tactile arts, visual arts and performing arts. Role of the family and teacher in encouraging children's explorations. Emphasis on developmentally appropriate curriculum that encourages children's imagination, creative thinking and self-expression.</td>
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<td>FHGE: Non-GE Applicable Transferable: CSU</td>
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<tr>
<td>CHLD 71</td>
<td>PLANNING CREATIVE ART ACTIVITIES FOR CHILDREN</td>
<td>1</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>1 hour lecture. (12 hours total per quarter.)</td>
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<td>Introduction to a variety of creative art activities for the young child. Exploration of a variety of tactile arts including paint, chalk, play dough, collage and crayons. Emphasis on developmentally appropriate curriculum development that encourages children's imagination, creative thinking and self-expression.</td>
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<td>FHGE: Non-GE Applicable Transferable: CSU</td>
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<td>CHLD 72</td>
<td>LANGUAGE, LITERACY &amp; THE DEVELOPING CHILD</td>
<td>3</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>3 hours lecture. (36 hours total per quarter.)</td>
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<td>Development of language and speech, language acquisition theories, and emergent literacy in monolingual and young English language learners. Discussion of experiences and activities which promote oral and written language abilities. Focus on the developmental stages of receptive and expressive language, conversations, print awareness, phonemic awareness, reading and writing, bilingual development, and speech and language delays, children's literature and poetry. Students gain experience in using language art materials and planning language experiences for young children.</td>
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<td>FHGE: Non-GE Applicable Transferable: CSU</td>
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<td>CHLD 73</td>
<td>MUSIC &amp; MOVEMENT IN THE EARLY YEARS</td>
<td>2</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Not Repeatable.</td>
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<td>2 hours lecture. (24 hours total per quarter.)</td>
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<td>Music and movement activities and experiences that facilitate non-musician teachers to express ideas and implement expanded curriculum ideas for infants/toddlers, preschoolers and school aged children. Elements of presentation and basic concepts of teaching music and movement to promote the growth and development of the young children.</td>
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<td>FHGE: Non-GE Applicable Transferable: CSU</td>
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<td>CHLD 74</td>
<td>SCIENCE &amp; NATURE</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<td>1 hour lecture. (12 hours total per quarter.)</td>
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<td>Developing science experiences for children. Activities involving plants, animals, and the physical properties of the environment. Emphasis on making science part of the everyday experience in early childhood program curriculum.</td>
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<td>FHGE: Non-GE Applicable Transferable: CSU</td>
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<tr>
<td>CHLD 79</td>
<td>CARING FOR INFANTS &amp; TODDLERS IN GROUPS</td>
<td>3</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>3 hours lecture. (36 hours total per quarter.)</td>
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<td>Overview of infant and toddler development as it relates to caregiving practices in group settings. Observation and analysis of infant/toddler classrooms. Influence of responsive and culturally sensitive relationships with children and their parents on children’s development. Effects of social and physical environments on program practices, child learning and behavior.</td>
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<td>FHGE: Non-GE Applicable Transferable: CSU</td>
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<tr>
<td>CHLD 82</td>
<td>PLANNING CREATIVE DRAMATICS</td>
<td>1</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Not Repeatable.</td>
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<td>1 hour lecture. (12 hours total per quarter.)</td>
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<td>Introduction to creative dramatics for the child; dramatic play, puppetry, role playing, acting out stories; how to implement creative dramatics. The emergence of creativity, imagining, and empathizing with others. Techniques for promoting children's sensitivity to, and use of, various dramatic art forms. Role of the parent and teacher in facilitating children's explorations.</td>
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<tr>
<td>CHLD 86A</td>
<td>MENTORING THE EARLY CARE &amp; EDUCATION PROFESSION</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: CHLD 1, 8; a minimum of one other three-unit course in Child Development.</td>
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<td>Not Repeatable.</td>
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<td>4 hours lecture. (48 hours total per quarter.)</td>
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<td>Prerequisites for the role of mentoring student teachers, assistant teachers, parents, and volunteers in early care and education settings. Emphasis on the role of teachers supervising other adults while simultaneously addressing the classroom needs of the early care and education program. Development of the mentor in supporting the professional growth of the teaching adult. Fulfills the Child Development permit adult supervision course requirement.</td>
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<tr>
<td>CHLD 86B</td>
<td>PRACTICUM STUDENT TEACHING IN AN EARLY CHILDHOOD PROGRAM</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisites: CHLD 1, 8, 56N, and 89.</td>
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<td>Not Repeatable.</td>
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<td>2 hours lecture, 10 hours laboratory. (144 hours total per quarter.)</td>
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<td>A demonstration of developmentally appropriate early childhood teaching competencies under guided supervision. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and families. Child centered, play-oriented approaches to teaching, learning, and assessment; and knowledge of curriculum content areas will be emphasized as student teachers design, implement and evaluate experiences that promote positive development and learning for all young children.</td>
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FOOTHILL COLLEGE
CHLD 88B POSITIVE BEHAVIOR MANAGEMENT 2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Introduction to a range of positive guidance techniques that can be used with infants, toddlers, pre-school, and school-aged children. Emphasis on selection of appropriate positive guidance strategies to meet the needs of each individual child.
FHGE: Non-GE Applicable Transferable: CSU

CHLD 89 CURRICULUM FOR EARLY CARE & EDUCATION PROGRAMS 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: CHLD 1 or 2.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An overview of knowledge and skills related to providing appropriate curriculum and environments for infants and young children. Students will examine the teacher’s role in supporting development by using observation and assessment strategies and emphasizing the essential role of play. An overview of content areas will include but not be limited to: language and literacy, social and emotional learning, sensory learning, art and creativity, math and science.
FHGE: Non-GE Applicable Transferable: CSU

CHLD 90B ADMINISTRATION & SUPERVISION OF CHILDREN'S PROGRAMS PART I 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of 9 units of child development courses.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
A study of the development of the components of a quality early care and education program including roles and responsibilities of the director, types of programs, philosophy development, organizational structure, licensing regulations, advisory boards, facility design and set up, budgets and funding.
FHGE: Non-GE Applicable Transferable: CSU

CHLD 90C ADMINISTRATION & SUPERVISION OF CHILDREN'S PROGRAMS PART II 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of 9 units of child development courses.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Study of the development of the components of a quality early care and education program including the administrator’s responsibilities in equiping the program, staffing, marketing the program, selecting, grouping and enrolling the children. Also included are the administrative responsibilities of food management, health and safety programs, evaluating center components, staff professional development, working with families, volunteers and the community.
FHGE: Non-GE Applicable Transferable: CSU

COMMUNICATION STUDIES

COMM 1A PUBLIC SPEAKING 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in COMM 1AH or SPCH 1A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to the analysis, theory and history of rhetoric and public address; application of principles of public address to the preparation and delivery of public speeches.
FHGE: Communication & Analytical Thinking Transferable: CSU/UC
COMM 1AH  HONORS PUBLIC SPEAKING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in COMM 1A or SPCH 1A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to the analysis of the history of rhetoric and public address; application of principles of public address to the preparation and delivery of public speeches in front of a live audience. Particular attention is paid to development of oral communication and listening skills. The honors section provides accelerated students with additional academic challenge in the areas of research, discussion, and intellectual exploration of ideas. Expanded opportunities include, but are not limited to, in-depth examination of speech text within historical context, self-reflection speeches and papers, creative individual and group projects, historical oral interpretation, and enrichment activities.
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC

COMM 1B  ARGUMENTATION & PERSUASION  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in COMM 1BH or SPCH 1B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
The study and practice of argumentation and persuasion. Analysis of rhetorical theory and application of methods of effective persuasion. Knowledge of the structure and format of various types of disputation and participation in in-class speech activities.
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC

COMM 1BH  HONORS ARGUMENTATION & PERSUASION  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in COMM 1B or SPCH 1B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
The study and practice of argumentation and persuasion. Analysis of rhetorical theory and application of methods of effective persuasion. Knowledge of the structure and format of various types of disputation and participation in in-class speech activities. The honors section provides accelerated students with academic enrichment emphasizing rhetorical analysis and critical thinking. Expanded opportunities include, but are not limited to, examination of political speech in historical context, student-initiated and student-led discussion, self-reflection paper, and creative group project.
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC

COMM 2  INTERPERSONAL COMMUNICATION  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in SPCH 2.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Experience in interpersonal communication, including discussion, the perception process, critical thinking and reasoning, verbal and nonverbal modes of communication, intercultural communication, and the effect of communication on individuals and society. Faculty and peer feedback on critically evaluated exercises.
FHGE: Communication & Analytical Thinking, Lifelong Understanding
Transferable: CSU/UC

COMM 3  INTRODUCTION TO COMMUNICATION STUDIES  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in SPCH 3.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC

COMM 4  GROUP DISCUSSION  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in SPCH 4.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Analysis of the principles of group interaction and decision making. Participation in discussion groups designed to share information, solve problems and reach consensus.
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC

COMM 5  MASS COMMUNICATION  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in JRNL 2.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
The study of mass media and media technology as applied to society. Includes a study of media functions, responsibilities, practices, and influences, as well as a study of media history, development, and impact in shaping modern culture.
FHGE: Non-GE Applicable
Transferable: CSU/UC
COMM 10  GENDER, COMMUNICATION & CULTURE  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in SPCH 10.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
A comparative and integrative study of the interactive relationship between communication, gender, and culture in American society. Emphasis on the multiple ways communication in interpersonal relationships, educational institutions, organizations, media, and society in general creates and perpetuates gender roles. Analysis of gendered histories, traditions, and practices which normalize certain expectations, values, meanings and patterns of behavior across cultural/racial lines (Asian Americans, African Americans, European Americans, Latino Americans, Native Americans, Gays, Lesbians, Bisexual and Transgendered peoples).
FHGE: American Cultures & Communities, Lifelong Understanding
Transferable: CSU

COMM 12  INTERCULTURAL COMMUNICATION  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in SPCH 12.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
A comparative and integrative study of intercultural communication in American society. Analysis of cultural historical concepts, language, ethnic perspectives, symbols and roles as they facilitate or hinder effective verbal and nonverbal interaction across cultural lines. Examination of cultural identities which influence thinking and behavior, such as race, class, gender, ethnicity, sexual orientation, nationality, age, appearance and physical ability.
FHGE: American Cultures & Communities, Lifelong Understanding
Transferable: CSU

COMM 55  CAREER & LEADERSHIP COMMUNICATION IN THE GLOBAL WORKPLACE  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in SPCH 55.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to communication in organizational, career, leadership and global contexts. Interviewing, interpersonal and intercultural communication, group interactions, professional presentations and leadership development. Application of theories and skills through critically evaluated exercises.
FHGE: Communication & Analytical Thinking, Lifelong Understanding
Transferable: CSU

COURSE CATALOG 2020–2021

FOOTHILL COLLEGE

COMPUTER SCIENCE

Physical Sciences, Mathematics & Engineering
650.949.7259 foothill.edu/cs/

C S 1A  OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN JAVA  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MATH 105 or equivalent; not open to students with credit in C S 1AH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Systematic introduction to fundamental concepts of computer science through the study of the Java programming language. Coding topics include Java control structures, classes, methods, arrays, graphical user interfaces and elementary data structures. Concept topics include algorithms, recursion, data abstraction, problem solving strategies, code style, documentation, debugging techniques and testing.
FHGE: Communication & Analytical Thinking
Transferable: CSU

C S 1AH  HONORS OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN JAVA  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: MATH 105 or equivalent; not open to students with credit in C S 1A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Systematic introduction to fundamental concepts of computer science through the study of the Java programming language. Coding topics include Java control structures, classes, methods, arrays, graphical user interfaces and elementary data structures. Concept topics include algorithms, recursion, data abstraction, problem solving strategies, code style, documentation, debugging techniques and testing. Honors work emphasizes a deeper study of computer science via discourse, projects and techniques that exercise the powerful tools available to the computer scientist in general, and Java programmers in particular.
FHGE: Communication & Analytical Thinking
Transferable: CSU

C S 1B  INTERMEDIATE SOFTWARE DESIGN IN JAVA  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: C S 1A or 1AH.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Systematic treatment of intermediate concepts in computer science through the study of Java object-oriented programming (OOP). Coding topics include Java interfaces, class extension, generics, the Java collections framework, multi-dimensional arrays and file I/O. Concept topics include OOP project design, inheritance, polymorphism, method chaining, functional programming, linked-lists, FIFOs, LIFOs, event-driven programming and guarded code.
FHGE: Communication & Analytical Thinking
Transferable: CSU

C S 1C  ADVANCED SOFTWARE DESIGN IN JAVA  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: C S 1B.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Systematic treatment of advanced concepts in computer science through the study of Java object-oriented programming (OOP). Coding topics include Java interfaces, class extension, generics, the Java collections framework, multi-dimensional arrays and file I/O. Concept topics include OOP project design, inheritance, polymorphism, method chaining, functional programming, linked-lists, FIFOs, LIFOs, event-driven programming and guarded code.
FHGE: Communication & Analytical Thinking
Transferable: CSU
**C S 1C**  ADVANCED DATA STRUCTURES & ALGORITHMS IN JAVA  4.5 Units

**Degree & Credit Status:** Degree-applicable credit course

**Prerequisite:** C S 1B.

**Advisory:** One of the following: ENGL 1A, 1AH, or 1S & 1T.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)

Systematic treatment of advanced data structures, algorithm analysis and abstract data types in the Java programming language. Coding topics include the development of ADTs from scratch, building ADTs on top of the java.util collections, array lists, linked lists, trees, maps, hashing functions and graphs. Concept topics include searching, big-O time complexity, analysis of all major sorting techniques, top down splaying, AVL tree balancing, shortest path algorithms, minimum spanning trees and maximum flow graphs.

**FHGE:** Communication & Analytical Thinking

**Transferable:** CSU/UC

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**C S 1M**  INTERMEDIATE ALGORITHM METHODOLOGIES IN JAVA  4.5 Units

**Degree & Credit Status:** Degree-applicable credit course

**Prerequisite:** C S 1A or 1AH.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)

Systematic treatment of intermediate data structures, algorithm analysis and abstract data types in the Java programming language intended for Computer Science transfer majors. Coding topics include large program software engineering design, multi-dimensional arrays, string processing, primitives, compound types, and allocation of instance and static data. Concept topics include dynamic memory, inheritance, polymorphism, hierarchies, recursion, linked-lists, stacks, queues, trees and hash tables.

**FHGE:** Non-GE Applicable

**Transferable:** CSU/UC

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**C S 2A**  OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN C++  4.5 Units

**Degree & Credit Status:** Degree-applicable credit course

**Advisory:** MATH 105 or equivalent; not open to students with credit in C S 2AH.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)

Systematic introduction to fundamental concepts of computer science through the study of the C++ programming language. Coding topics include C++ control structures, objects, global-scope functions, class methods, arrays and elementary data structures. Concept topics include algorithms, recursion, data abstraction, problem solving strategies, code style, documentation, debugging techniques and testing.

**FHGE:** Communication & Analytical Thinking

**Transferable:** CSU/UC

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**C S 2B**  INTERMEDIATE SOFTWARE DESIGN IN C++  4.5 Units

**Degree & Credit Status:** Degree-applicable credit course

**Prerequisite:** C S 2A.

**Advisory:** Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)

Systematic treatment of intermediate concepts in computer science through the study of C++ object-oriented programming (OOP). Coding topics include C++ derived classes, class templates, function templates, virtual functions, operator overloading, an introduction to the Standard Template Library, multiple inheritance, pointers, dynamic memory allocation and file I/O. Concept topics include OOP project design, inheritance, polymorphism, method chaining, functional programming, linked-lists, FIFOs, LIFOs, events in GUIs and guarded code.

**FHGE:** Communication & Analytical Thinking

**Transferable:** CSU/UC

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**C S 2C**  ADVANCED DATA STRUCTURES & ALGORITHMS IN C++  4.5 Units

**Degree & Credit Status:** Degree-applicable credit course

**Prerequisite:** C S 2B.

**Advisory:** One of the following: ENGL 1A, 1AH, or 1S & 1T.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)

Systematic treatment of advanced data structures, algorithm analysis and abstract data types in the C++ programming language. Coding topics include the development of ADTs from scratch, building ADTs on top of the STL templates, vectors, lists, trees, maps, hashing functions and graphs. Concept topics include searching, big-O time complexity, analysis of all major sorting techniques, top down splaying, AVL tree balancing, shortest path algorithms, minimum spanning trees and maximum flow graphs.

**FHGE:** Communication & Analytical Thinking

**Transferable:** CSU/UC

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**C S 2M**  INTERMEDIATE ALGORITHM & DATA STRUCTURE METHODOLOGIES IN C++  4.5 Units

**Degree & Credit Status:** Degree-applicable credit course

**Prerequisite:** C S 2A.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)

Systematic treatment of intermediate data structures, algorithm analysis and abstract data types in the C++ programming language intended for Computer Science transfer majors. Coding topics include large program software engineering design, multi-dimensional arrays, string processing, primitives, compound types, and allocation of instance and static data. Concept topics include dynamic memory, inheritance, polymorphism, hierarchies, recursion, linked-lists, stacks, queues, trees and hash tables.

**FHGE:** Non-GE Applicable

**Transferable:** CSU/UC
### C S 3A  OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN PYTHON

**Degree & Credit Status:** Degree-applicable credit course  
**Advisory:** MATH 105 or equivalent.  
**Grade Type:** Letter Grade or Pass/No Pass  
**Not Repeatable.**  
**4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)**  
Systematic introduction to fundamental concepts of computer science through the study of the Python object-oriented programming (OOP) language. Coding topics include control structures, functions, classes, string processing, lists, tuples, dictionaries, working with files, and elementary graphics. Concept topics include algorithms, recursion, data abstraction, problem solving strategies, code style, documentation, debugging techniques and testing.  
**FHGE:** Communication & Analytical Thinking  
**Transferable:** CSU/UC

### C S 3B  INTERMEDIATE SOFTWARE DESIGN IN PYTHON

**Degree & Credit Status:** Degree-applicable credit course  
**Prerequisite:** C S 3A.  
**Advisory:** Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESLL 249.  
**Grade Type:** Letter Grade or Pass/No Pass  
**Not Repeatable.**  
**4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)**  
Systematic treatment of intermediate concepts in computer science through the study of Python object-oriented programming (OOP). Coding topics include Python sequences, user-defined classes and interfaces, modules, packages, collection classes, threads, lambda expressions, list comprehensions, regular expressions and multi-dimensional arrays. Concept topics include OOP project design, recursion, inheritance, polymorphism, functional programming, linked-lists, FIFOs, LIFOs, event-driven parsing, exceptions and guarded code.  
**FHGE:** Non-GE Applicable  
**Transferable:** CSU/UC

### C S 3C  ADVANCED DATA STRUCTURES & ALGORITHMS IN PYTHON

**Degree & Credit Status:** Degree-applicable credit course  
**Prerequisite:** C S 3B.  
**Advisory:** Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESLL 249.  
**Grade Type:** Letter Grade or Pass/No Pass  
**Not Repeatable.**  
**4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)**  
A systematic treatment of advanced data structures, algorithm analysis and abstract data types in the Python programming language, intended for computer science majors as well as non-majors and professionals seeking advanced Python experience. Coding topics include large program software engineering design, multi-dimensional arrays, string processing, primitives, compound types, and allocation of instance and static data. Data structure concept topics include dynamic memory, inheritance, polymorphism, hierarchies, recursion, linked-lists, stacks, queues, trees, hash tables and graphs. Algorithm concept topics include searching, big-O time complexity, analysis of all major sorting techniques, top down splaying, AVL tree balancing, shortest path algorithms, minimum spanning trees and maximum flow graphs.  
**FHGE:** Non-GE Applicable  
**Transferable:** CSU/UC
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C S 31A  INTRODUCTION TO DATABASE MANAGEMENT SYSTEMS  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: C S 1A, 1AH, 2A, 3A or equivalent.
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Introduction to database design and use of database management systems for applications. Topics include database architecture, comparison to file-based systems, historical data models, conceptual model; integrity constraints and triggers; functional dependencies and normal forms; relational model, algebra, database processing and Structured Query Language (SQL), database access from Applications-Embedded SQL, JDBC, Cursors, Dynamic SQL, Stored Procedures. Emerging trends will be studied, such as NoSQL databases, internet and databases and Online Analytical Processing (OLAP). A team project that builds a database application for a real-world scenario is an important element of the course.
FHGE: Non-GE Applicable  Transferable: CSU/UC

C S 40A  SOFTWARE ENGINEERING METHODOLOGIES  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: C S 1B or 2B.
Grade Type: Letter Grade or Pass/No Pass
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
A collaboration-oriented course that trains students in the techniques currently used by software engineers to develop reliable products in an efficient manner. The course emphasizes Agile methods and a variety of tools used during the software development lifecycle.
FHGE: Non-GE Applicable  Transferable: CSU/UC

C S 48A  DATA VISUALIZATION  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: MATH 10, MATH 17, PSYC 7 or SOC 7.
Grade Type: Letter Grade or Pass/No Pass
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Introduction to the effective processing and communication of data. Topics include identifying the key techniques and theory used in data visualization, creating and designing static and interactive visualizations using data, and communicating insight through data visualization to an intended audience. Students will use a data visualization package, such as R, Tableau, or Matplotlib in Python.
FHGE: Non-GE Applicable  Transferable: CSU/UC

C S 49  FOUNDATIONS OF COMPUTER PROGRAMMING  2 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: MATH 105 or equivalent; concurrent enrollment in ESLL 125 or ENGL 209.
Grade Type: Letter Grade or Pass/No Pass
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Introduction to basic computer programming concepts using an object-oriented language. Intended for students interested in C S 1A or 2A, but would like a more gradual entry to computing foundations. Coding topics include hands-on practice with software engineering tools, simple programs, variables, control structures, functions, and input/output. Concept topics include the comprehension of specifications, adherence to style guidelines, and the importance of testing to ensure that programs are usable, robust and modifiable.
FHGE: Non-GE Applicable  Transferable: CSU/UC

C S 50A  NETWORK BASICS (CCNA)  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Introduction to the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.
FHGE: Non-GE Applicable  Transferable: CSU

C S 50B  ROUTING & SWITCHING ESSENTIALS (CCNA)  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50A.
Grade Type: Letter Grade or Pass/No Pass
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. This course is preparation for the CCENT and CCNA certification exams. This course describes the architecture, components, and operations of routers, and explains the principles of routing and routing protocols. Students will be given the opportunity to configure a router for basic and advanced functionality. Students will be able to configure and troubleshoot routers and resolve common issues with RIPv1, RIPv2, EIGRP, and OSPF in both IPv4 and IPv6 network.
FHGE: Non-GE Applicable  Transferable: CSU

C S 50C  SCALING LOCAL AREA NETWORKS (CCNA)  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50A.
Grade Type: Letter Grade or Pass/No Pass
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
This course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement a WLAN in a small-to-medium network.
FHGE: Non-GE Applicable  Transferable: CSU

C S 50D  CONNECTING NETWORKS-WANS (CCNA)  4.5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50A, 50B and 50C.
Grade Type: Letter Grade or Pass/No Pass
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network.
FHGE: Non-GE Applicable  Transferable: CSU
FHGE: Non-GE Applicable  Transferable: CSU

C S 50A  ADVANCED IP ROUTING PROTOCOLS & SERVICES (CCNP)  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50B or equivalent experience.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
The ROUTE course is designed to help students advance their knowledge and skills and work independently on complex network solutions. Students will plan, configure and verify the implementation of secure enterprise LAN and WAN routing solutions using a range of routing protocols. Configuration of solutions to support branch offices and mobile workers will be presented. This course uses the official Cisco Academy CCNP ROUTE curriculum and is designed to provide preparation for the CCNP ROUTE certification exam.

FHGE: Non-GE Applicable  Transferable: CSU

C S 50B  ADVANCED SWITCHING & CAMPUS LAN DESIGN (CCNP)  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50C or equivalent experience.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
The course provides the knowledge and skills necessary to plan, configure and verify the implementation of complex enterprise switching solutions using Cisco's Campus Enterprise Architecture. Secure integration of VLANs, WLANs, voice and video into campus networks is also provided. The material is presented in a lecture and discussion format supplemented by comprehensive laboratory exercises. This course uses the official Cisco Academy CCNP SWITCH curriculum and is designed to provide preparation for the CCNP SWITCH certification exam.

FHGE: Non-GE Applicable  Transferable: CSU

C S 50C  ADVANCED COMPUTER TECHNOLOGY SECURITY FUNDAMENTALS  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50D or equivalent knowledge and skills.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
The fundamental aspects of computer and network security as it pertains to policy deployment and network defense. Core topics include cryptology, public key infrastructure, standards and protocols, physical security, infrastructure security, remote access, messaging, intrusion detection and system baselines. Industry-specific topics include certifications for CompTIA's Security+, ISC2, SSCP.

FHGE: Non-GE Applicable  Transferable: CSU

C S 52A  INTRODUCTION TO COMPUTER FORENSICS  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 52A, 52B or equivalent experience.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Survey of topics in field of forensics, with focus on hands-on labs, playing the role of both attacker and defender, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors.

FHGE: Non-GE Applicable  Transferable: CSU

C S 52B  INTRODUCTION TO COMPUTER 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 52C or equivalent knowledge and skills.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Survey current techniques used by malicious hackers to attack computers and networks, and it develops the defenses that security professionals use to defend Windows and Linux systems from such attacks. Topics will be presented in the context of legal restrictions and ethical guidelines. Hands-on labs, playing the role of both attacker and defender, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors.

FHGE: Non-GE Applicable  Transferable: CSU

C S 52C  INTRODUCTION TO COMPUTER SECURITY  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 52B or equivalent experience.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Survey current techniques used by malicious hackers to attack computers and networks, and it develops the defenses that security professionals use to defend Windows and Linux systems from such attacks. Topics will be presented in the context of legal restrictions and ethical guidelines. Hands-on labs, playing the role of both attacker and defender, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors.

FHGE: Non-GE Applicable  Transferable: CSU

C S 52D  ADVANCED NETWORK TRAFFIC MANAGEMENT  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 52C or equivalent knowledge and skills.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Survey current techniques used by malicious hackers to attack computers and networks, and it develops the defenses that security professionals use to defend Windows and Linux systems from such attacks. Topics will be presented in the context of legal restrictions and ethical guidelines. Hands-on labs, playing the role of both attacker and defender, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors.

FHGE: Non-GE Applicable  Transferable: CSU

C S 53A  ADVANCED IP ROUTING 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Survey current techniques used by malicious hackers to attack computers and networks, and it develops the defenses that security professionals use to defend Windows and Linux systems from such attacks. Topics will be presented in the context of legal restrictions and ethical guidelines. Hands-on labs, playing the role of both attacker and defender, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors.

FHGE: Non-GE Applicable  Transferable: CSU

C S 53B  FIREWALLS & THREAT MANAGEMENT 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 53A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Survey current techniques used by malicious hackers to attack computers and networks, and it develops the defenses that security professionals use to defend Windows and Linux systems from such attacks. Topics will be presented in the context of legal restrictions and ethical guidelines. Hands-on labs, playing the role of both attacker and defender, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors.

FHGE: Non-GE Applicable  Transferable: CSU

C S 53C  ETHICAL HACKING 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 53A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Survey current techniques used by malicious hackers to attack computers and networks, and it develops the defenses that security professionals use to defend Windows and Linux systems from such attacks. Topics will be presented in the context of legal restrictions and ethical guidelines. Hands-on labs, playing the role of both attacker and defender, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors.

FHGE: Non-GE Applicable  Transferable: CSU

C S 53D  COMPUTER SECURITY 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 53A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Survey current techniques used by malicious hackers to attack computers and networks, and it develops the defenses that security professionals use to defend Windows and Linux systems from such attacks. Topics will be presented in the context of legal restrictions and ethical guidelines. Hands-on labs, playing the role of both attacker and defender, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors.
C S 54B VMWARE VSPHERE INSTALL, CONFIGURE & MANAGE 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50A, 50B, 50C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
This course covers all aspects of server virtualization and draws its examples from VMware vSphere. This hands-on training course explores installation, configuration, and management of VMware vSphere, which consists of VMware ESXi and VMware vCenter Server. The course is based on ESXi and vCenter Server. Completion of this course satisfies the prerequisite for taking the VMware Certified Professional exam. Course is taught by a VMware certified instructor.
FHGE: Non-GE Applicable  Transferable: CSU

C S 54D CLOUD INFRASTRUCTURE & SERVICES 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
This course covers all aspects of server virtualization and draws its examples from VMware vSphere. This hands-on training course explores installation, configuration, and management of VMware vSphere, which consists of VMware ESXi and VMware vCenter Server. The course is based on ESXi and vCenter Server. Completion of this course satisfies the prerequisite for taking the VMware Certified Professional exam. Course is taught by a VMware certified instructor.
FHGE: Non-GE Applicable  Transferable: CSU

C S 55A INTRODUCTION TO CLOUD COMPUTING IN AMAZON WEB SERVICES 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
This course introduces cloud computing which shifts information systems from on premises computing infrastructure to highly scalable internet architectures using the Amazon AWS platform. The course provides a basic understanding of cloud computing technologies and provides students with the abilities to configure, deploy and manage cloud facilities including simple and complex compute instances, web servers and web services. The course also demonstrates/makes available the AWS Educate platform for educational, industry career path guidance and career opportunities.
FHGE: Non-GE Applicable  Transferable: CSU

C S 55B DATABASE ESSENTIALS IN AMAZON WEB SERVICES 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 55A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
This course addresses cloud database management which supports a number of different approaches for storing data. In the course, students define, operate and scale both SQL and noSQL data storage solutions. This course considers factors that should be balanced during the design of a storage solution. Principles are applied by performing exercises using Amazon RDS and SQL to create and fill tables, retrieve and manipulate data. Object-based APIs are used to serialize objects to Amazon DynamoDB for noSQL solutions. Topics include automated backups, transaction logs, restoration and retention.
FHGE: Non-GE Applicable  Transferable: CSU

C S 55C COMPUTE ENGINES IN AMAZON WEB SERVICES 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 55A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
In this course, students explore how cloud computing systems are built using a common set of core technologies, algorithms, and design principles centered around distributed systems. Students will use the Amazon Web Services (AWS) Management Console to provision, load-balance and scale their applications using the Elastic Compute Cloud (EC2) and the AWS Elastic Beanstalk. The course discusses, from a developer perspective, the most important reasons for using AWS and examines the underlying design principles of scalable cloud applications.
FHGE: Non-GE Applicable  Transferable: CSU

C S 55D SECURITY IN AMAZON WEB SERVICES 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 55A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
This course focuses on protecting the confidentiality, integrity and availability of computing systems and data. Students learn how Amazon Web Service (AWS) uses redundant and layered controls, continuous validation and testing, and a substantial amount of automation to ensure the underlying infrastructure is continuously monitored and protected. Students examine the AWS Shared Responsibility Model and access the AWS Management Console to learn more about security tools and features provided by the AWS platform.
FHGE: Non-GE Applicable  Transferable: CSU

C S 56B IT ESSENTIALS 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 50A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
The course presents a working knowledge of computer internals and provides practical skills in computer hardware assembly and software installation. Emphasis is placed on troubleshooting problems, throughout the life cycle of a computer system.
FHGE: Non-GE Applicable  Transferable: CSU

C S 60C CONFIGURING ADVANCED WINDOWS SERVER 2012 SERVICES 4.5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Introduction to configuring advanced services on Windows Server 2012. It provides both lecture and laboratory exercises to enable the student to deploy, manage, and maintain servers, configure file and print services, configure network services and access, configure a network policy server infrastructure, and configure and manage group policy.
FHGE: Non-GE Applicable  Transferable: CSU
C S 63A     DEVELOPING APPLICATIONS FOR IOS  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 1B, 2B or 3B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
An introduction to programming the iPhone, iPad and iPod Touch devices. Covers Swift, Cocoa Touch, and the Model/View/Controller architecture. Students will learn the basics of Swift and will acquire practical experience with the tools, techniques, and concepts needed to build a basic iOS app from scratch.
FHGE: Non-GE Applicable Transferable: CSU

C S 64A     WRITING APPS FOR THE ANDROID IN JAVA  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 1B or 2B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Introduction to mobile apps programming in Java for the Android. Coding topics include the Android SDK for Eclipse, the ADT Plugin, XML fundamentals and a survey of API methods and objects used to control the Android user interface. Concept topics include layouts, activity lifecycles, runtime binding, intents, location awareness, audio, video, OpenGL ES, and monetizing apps.
FHGE: Non-GE Applicable Transferable: CSU

C S 71A     DATA ANALYTICS & MANAGEMENT  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MATH 10, C S 31A, C S 21A or 21B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Introduction to Big Data ecosystems, tool infrastructure and industrial applications. Overview of the evolution, characteristics and significance of Big Data and the analytics process model. Hands-on exploration of Big Data solutions for specific industries. Concept topics include data management such as acquiring, cleansing and normalizing Big Data; application to log analytics, fraud detection, social media patterns, call centers, etc.; review of traditional SQL based Relational Database Management and issues with scaling when datasets are too big; methodology of NoSQL; big data technology infrastructures, such as the Hadoop framework and ecosystem components including Hadoop Distributed File Systems (HDFS), Hbase, MapReduce, Oozie, Pig and functionality used in Big Data; survey of tools in analytics and data visualization (DVT); survey of deployment patterns used in various industries.
FHGE: Non-GE Applicable Transferable: CSU

C S 80A     OPEN SOURCE CONTRIBUTION  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 40A; C S 1A (or IAH) and 1B (or 1M), or 2A and 2B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Introduction to the tools for, and culture of, contributing to open source software projects. Tool-based topics include Git repositories, pull requests, forks, logs, merges, tagging, rebasing and server configuration. Concept topics include commit guidelines, branching workflows, small-team vs. large-team workflows, project maintenance, iterative staging, selecting viable source communities, joining public projects, setting up accurate dev environments, testing and prepping patch merges, and becoming a committer.
FHGE: Non-GE Applicable Transferable: CSU

C S 81A     3-D GRAPHICS PROGRAMMING  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: C S 1B, 2B, 20A, 21B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Introduction to 3-D graphics programming using OpenGL, intended for anyone interested in gaining 3-D expertise for games, scientific visualization, desktop and mobile apps. Coding topics include a systematic study of the OpenGL API in conjunction with any of these programming languages: Java, C++, C# or Objective C (student’s choice). Concept topics include viewports, graphics primitives, 3-D motion matrices, normal vectors, shaders, fragment and pixel buffers, light simulation, polygons, virtual cameras, image pipelines, texture mapping and alpha blending.
FHGE: Non-GE Applicable Transferable: CSU

C S 82A     INTRODUCTION TO SOFTWARE QUALITY ASSURANCE  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Knowledge of an object-oriented programming language.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
Introduction to Software Quality Assurance principles, techniques, processes and tools. A team project takes students through the planning and implementation of the test and release of a software product using a current toolset.
FHGE: Non-GE Applicable Transferable: CSU

C S 84A     DATABASE-DRIVEN WEB APPLICATION DEVELOPMENT  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 31A, 49 and GID 57 or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
An introduction to distributed data management including distributed database design, implementation techniques including concurrency control, query processing and optimization, data replication, integration and peer-to-peer systems. Distributed database solutions are also presented, including data management systems for cloud computing.
FHGE: Non-GE Applicable Transferable: CSU

C S 84B     DISTRIBUTED DATABASES  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: C S 31A or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 2 hours laboratory. (72 hours total per quarter.)
An introduction to 3-D graphics programming using OpenGL, intended for anyone interested in gaining 3-D expertise for games, scientific visualization, desktop and mobile apps. Coding topics include a systematic study of the OpenGL API in conjunction with any of these programming languages: Java, C++, C# or Objective C (student’s choice). Concept topics include viewports, graphics primitives, 3-D motion matrices, normal vectors, shaders, fragment and pixel buffers, light simulation, polygons, virtual cameras, image pipelines, texture mapping and alpha blending.
FHGE: Non-GE Applicable Transferable: CSU
Counseling and Student Services
650.949.7423 foothill.edu/counseling/

CNSL 1 COLLEGE SUCCESS 3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Maximum UC credit awarded for completion of CNSL 1 and CNSL 5 is 4.5 quarter units.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (36 hours total per quarter.)
Exploration of factors that contribute to college success, including responsibility/control; competition; task-precision; expectations; wellness; time management; college involvement; family/support systems involvement. Activities include: testing and individualized evaluations; group processing and practicum.
FHGE: Lifelong Understanding Transferable: CSU/UC

CNSL 5 INTRODUCTION TO COLLEGE 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: ESLL 236 & 237; maximum UC credit awarded for completion of CNSL 1 and CNSL 5 is 4.5 quarter units; not open to students with credit in CNSL 50.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Introduction to Foothill College academic policies, resources, programs and services; tools for career exploration, determination and decision making; choosing the right classes based on career/academic goals, the transfer process; study skills; time management and formulation of computer based educational plans.
FHGE: Non-GE Applicable Transferable: CSU/UC

CNSL 6 EXPLORING LEADERSHIP 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in CNSL 61.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Explores concepts of leadership theory with direct applications for leading organizations and creating positive social change. The intent is to provide students with a foundational understanding of the knowledge and skills needed to be an effective leader. This course utilizes experiential activities and group projects as a primary method for applying theories and concepts to the everyday practice of leadership. In this course, leadership is understood primarily as a function of personal development with the intention to create transformational change in one’s community.
FHGE: Non-GE Applicable Transferable: CSU/UC

CNSL 8 TRANSFER READINESS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in CNSL 8H, 85A, or 85H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Provides a global perspective about the transfer process from a California community college to a four-year university, including transfer exploration, transfer policies, academic requirements, transfer planning and process, and available tools and services in support of transfer goals. Students have the opportunity to broaden their perspectives by examining the role of higher education in society. Guides students to examine their life plan and achievements, and to develop a strong personal statement. Students will complete a university cost analysis, as well as explore resources to help fund their education.
FHGE: Non-GE Applicable Transferable: CSU/UC

CNSL 8H HONORS TRANSFER READINESS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in CNSL 8, 85A, or 85H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Provides a global perspective about the transfer process from a California community college to a four-year university, including transfer exploration, transfer policies, academic requirements, transfer planning and process, and available tools and services in support of transfer goals. Students have the opportunity to broaden their perspectives by examining the role of higher education in society. Guides students to examine their life plan and achievements, and to develop a strong personal statement. Students will complete a university cost analysis, as well as explore resources to help fund their education.
FHGE: Non-GE Applicable Transferable: CSU/UC

CNSL 86  INTRODUCTION TO LEADERSHIP  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Introduction to the dynamics of working groups and the impact of leadership on the effectiveness of groups; examination of the linkage between concepts and theories of leadership to the everyday functioning of student organizations.
FHGE: Non-GE Applicable  Transferable: CSU

CNSL 87  LEADERSHIP: THEORIES & PRACTICES  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Further exploration of leadership application to the everyday functioning of student organizations; understand the role played by structure and governance models in organizational effectiveness. Understand and apply the concepts of team building and communication in groups. Advanced development of leadership goals and application of group goal setting strategies. Affiliation with student government or other campus leadership position required.
FHGE: Non-GE Applicable  Transferable: CSU

CNSL 88  LEADERSHIP: THEORIES, STYLES & REALITIES  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Continued development and further study in the dynamics of working groups with a focus on community advocacy, leadership ethics training, and program planning.
FHGE: Non-GE Applicable  Transferable: CSU

CNSL 89  ADVANCED LEADERSHIP REALITIES  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Advanced study in the dynamics of working groups and the impact of leadership on the effectiveness of groups; advanced practical application of group and individual leadership techniques.
FHGE: Non-GE Applicable  Transferable: CSU

CNSL 90  INTRODUCTION TO ONLINE LEARNING  1.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Familiarity with the internet; demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 1.5 hours laboratory. (30 hours total per quarter.)
Performance measures include online interaction, assessment of the various tools and resources of the internet, the student will develop an understanding of the skills needed to be successful when engaging in online instruction.
FHGE: Lifelong Understanding  Transferable: CSU

CNSL 275  EOPS: THE ROAD TO COLLEGE SUCCESS-MORE THAN JUST BOOKS  1 Unit
Degree & Credit Status: Non-degree-applicable credit course
Advisory: Not open to students with credit in CNSL 175.
Grade Type: Pass/No Pass Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Course will introduce EOPS/CARE students to various EOPS services, policies and requirements governing programs. Course encourages collaborative learning, educational attainment, promotes student retention, persistence, success. Topics include: financial aid/scholarship applications, identifying campus resources, budgeting and managing money, cultural identity and experiences, goal-setting, self-esteem, career options, managing time.
FHGE: Non-GE Applicable  Transferable: None

CREATIVE WRITING

Language Arts
650.949.7678  foothill.edu/la/

CRWR 6  INTRODUCTION TO CREATIVE WRITING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Explicit instruction and practice in writing poetry and short fiction. Assignments include reading, analyzing and responding to published and student work and writing original work. Analysis of public readings and/or interviews with writers.
FHGE: Humanities  Transferable: CSU/UC
CRWR 25A  POETRY IN COMMUNITY  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Contemporary local poets guest lecture and engage in conversation with students about process, poetics, and approach to publishing. Emphasis on ways poetry has historically created community to honor and maintain cultural knowledge and to complicate single narratives. Special emphasis on integrated reading and writing for literary analysis, including reflective and creative stylistic emulation of poets studied. Focus on sharing new work through organizing community reading and publishing class anthology.
FHGE: Humanities  Transferable: CSU/UC

CRWR 39A  INTRODUCTION TO SHORT FICTION WRITING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CRWR 39A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Explicit instruction and practice in writing a variety of short fiction forms, including short narratives, flash fiction and traditional short stories. Assignments include reading, analyzing and responding to published works and student work, as well as writing original work. Analysis of public readings and/or interviews with writers.
FHGE: Humanities  Transferable: CSU/UC

CRWR 39B  ADVANCED SHORT FICTION WRITING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CRWR 39A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Explicit instruction and practice in writing a variety of short fiction forms, including short narratives, flash fiction and traditional short stories. Assignments include reading, analyzing and responding to published works and student work, as well as writing original work. Class presentations and workshop leadership. Analysis of public readings and/or interviews with writers.
FHGE: Non-GE Applicable  Transferable: CSU/UC

CRWR 41A  POETRY WRITING  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Explicit instruction and practice in writing poetry. Assignments include reading, analyzing and responding to published and student work and writing original work.
FHGE: Humanities  Transferable: CSU/UC

CRWR 41B  ADVANCED POETRY WRITING  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: CRWR 41A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Explicit instruction and practice in reading and writing poetry at an advanced level. Assignments include reading, analyzing and responding to published and student work and writing original work. Class presentation and workshop leadership required.
FHGE: Non-GE Applicable  Transferable: CSU/UC

DANCE

Kinesiology and Athletics
650.949.7741  foothill.edu/dance/

Foothill offers dance activity courses in four different family categories. No single course may be repeated. Enrollment is limited to six courses per family within the Foothill-De Anza Community College District. Please refer to the De Anza College Catalog for the corresponding families and courses.

Dance Conditioning Family: DANC 1A, 1B, 1C & 14
Dance Performance Family: DANC 7, 11A, 11B, 11C, 12A, 12B & 12C
Social & Cultural Dance Family: DANC 4A, 4B, 4C, 6, 18A & 18B
Dance Technique Family: DANC 2A, 2B, 3A, 3B, 13A & 13B

DANC 1A  BEGINNING BALLET  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Ballet & Conditioning family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Introduction to the elementary fundamentals of classical ballet technique and training. Includes the basic vocabulary and practice of beginning barre and center floor exercises.
FHGE: Lifelong Understanding  Transferable: CSU/UC

DANC 1B  INTERMEDIATE BALLET  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Ballet & Conditioning family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Continuation into the intermediate fundamentals of ballet technique and training. Includes the intermediate vocabulary and practice of barre and center floor exercises.
FHGE: Lifelong Understanding  Transferable: CSU/UC
DANC 1C  ADVANCED BALLET  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Advisory: This course is included in the Ballet & Conditioning family of activity courses.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Continuation into the advanced fundamentals of ballet technique and training. Includes the advanced vocabulary and practice of barre and center floor exercises.  
FHGE: Lifelong Understanding  Transferable: CSU/UC  

DANC 2A  BEGINNING MODERN DANCE  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Advisory: This course is included in the Dance Technique family of activity courses; not open to students with credit in DANC 2.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Introduction to the elementary fundamentals of modern dance technique and training. Course includes the basic vocabulary and practice of beginning modern center barre and floor exercises.  
FHGE: Lifelong Understanding  Transferable: CSU/UC  

DANC 2B  INTERMEDIATE MODERN DANCE  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: DANC 2A.  
Advisory: This course is included in the Dance Technique family of activity courses.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Continuation into the intermediate fundamentals of modern technique and training. Includes the intermediate vocabulary and practice of center floor and across the floor exercises.  
FHGE: Lifelong Understanding  Transferable: CSU/UC  

DANC 3A  BEGINNING JAZZ DANCE  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Advisory: This course is included in the Dance Technique family of activity courses.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Introduction to the fundamental technique of jazz dance. Emphasis is placed on class participation so that students may develop their knowledge and understanding of the basic principles of jazz dancing, including warm-up, stretch, isolations and choreography.  
FHGE: Lifelong Understanding  Transferable: CSU/UC  

DANC 3B  INTERMEDIATE JAZZ DANCE  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: DANC 3A.  
Advisory: This course is included in the Dance Technique family of activity courses.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Opportunity to practice and develop intermediate jazz techniques. Emphasis on techniques presented, as well as information on historical and stylistic perspectives of this dance form.  
FHGE: Lifelong Understanding  Transferable: CSU/UC  

DANC 4A  BEGINNING BALLROOM & SOCIAL DANCE  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Advisory: This course is included in the Social & Cultural Dance family of activity courses; not open to students with credit in DANC 4.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Introduction to beginning ballroom and social dance techniques. Instruction and practice in beginning Swing, Cha-Cha, Waltz, Fox Trot, Rhumba and Tango dances.  
FHGE: Lifelong Understanding  Transferable: CSU/UC  

DANC 4B  INTERMEDIATE BALLROOM  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Advisory: This course is included in the Social & Cultural Dance family of activity courses.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Introduction to intermediate ballroom and social dance techniques. Instruction and practice in intermediate Swing, Cha-Cha, Waltz, Fox Trot, Rhumba and Tango dances.  
FHGE: Lifelong Understanding  Transferable: CSU/UC  

DANC 4C  ADVANCED BALLROOM & SOCIAL DANCE  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Advisory: This course is included in the Social & Cultural Dance family of activity courses.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Introduction to advanced ballroom and social dance techniques. Instruction and practice in advanced Swing, Cha-Cha, Waltz, Fox Trot, Rhumba and Tango dances.  
FHGE: Lifelong Understanding  Transferable: CSU/UC  

DANC 6  BEGINNING COUNTRY-WESTERN  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Advisory: This course is included in the Social & Cultural Dance family of activity courses.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Introduction to the fundamental skills for Country and Western Line Dancing. Students will participate in a variety of dance steps designed to develop the coordination, skill, choreography and timing necessary for social line dancing.  
FHGE: Lifelong Understanding  Transferable: CSU/UC  

DANC 7  CHOREOGRAPHY  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Advisory: This course is included in the Dance Performance family of activity courses.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
Introduction to the exploration of the basic principles and theories of choreography and composition and the tools for defining the creative process.  
FHGE: Lifelong Understanding  Transferable: CSU/UC
A comprehensive study of the evolution of theatrical dance in the western world from the 16th century through the present day. Includes the eras of French court ballet, ballet d'action, romantic and classical ballet, modern, post-modern and contemporary dance styles. Examines topics in dance as an art form, including origin and history of major styles, traditions, trends; outstanding artists and works; practice in observing and understanding dance in a historical and cultural context. Analysis of dance as an expression of social order, power, classical art, a medium of cultural fusion, and as an expression of individual artists.

FHGE: Humanities Transferable: CSU/UC

DANC 10  TOPICS IN DANCE HISTORY  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Open to students with credit in H P 70.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (60 hours total per quarter.)

DANC 11A  REPERTORY DANCE I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Dance Performance family of activity courses; not open to students with credit in DANC 11.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 6 hours laboratory. (96 hours total per quarter.)
Introduction to the basic concepts of dance performance. Includes beginning experience with the rehearsal process, learning dance works and preparation for a performance. Students will be given the opportunity to perform for a live audience and to collaborate with and perform for area colleges and universities, civic, local, or charity organizations.

FHGE: Non-GE Applicable Transferable: CSU/UC

DANC 11B  CHOREOGRAPHY FOR PERFORMANCE I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Dance Performance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 6 hours laboratory. (96 hours total per quarter.)
Introduction to the basic concepts of choreography and dance composition. Students will be given the opportunity to create original beginning dance works for individuals and groups to be performed in front of a live audience. Includes beginning dance technique and practice of basic choreographic skills.

FHGE: Non-GE Applicable Transferable: CSU/UC

DANC 11C  DANCE PRODUCTION I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Dance Performance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 6 hours laboratory. (96 hours total per quarter.)
Introduction to the fundamentals of dance production and performance. Includes instruction on how to produce and mount a full-scale theatrical production for public performance, makeup techniques, lighting design and stagecraft. Students will also have the opportunity to perform, choreograph and stagecrew at the beginning dance production skill level.

FHGE: Non-GE Applicable Transferable: CSU/UC
DANC 13B  INTERMEDIATE CONTEMPORARY  1 Unit

DANCE

Degree & Credit Status: Degree-applicable credit course
Prerequisite: DANC 13A.
Advisory: This course is included in the Dance Technique family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Continuation into the intermediate contemporary dance technique and training. Includes the intermediate vocabulary and practice of barre, center floor exercises and across the floor combinations.
FHGE: Lifelong Understanding  Transferable: CSU/UC

DANC 14  DANCE CONDITIONING  1 Unit

Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Ballet & Conditioning family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Introduction to the principles of dance and conditioning through floor work derived from various dance disciplines, including ballet, jazz, contemporary and other psycho-physical disciplines. Topics may include body mechanics, muscle groups critical to dance, flexibility, alignment, self-assessment, dance injury prevention, and strengthening the mind-body-spirit connection.
FHGE: Lifelong Understanding  Transferable: CSU/UC

DANC 18A  INTRODUCTION TO HIP-HOP  1 Unit

DANCE

Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Social & Cultural Dance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
An introduction to the technique of Hip Hop dance with an integrated fitness approach that focuses on developing the stabilization muscles of the center of the body. Concentration will be on isolations of the muscles of the torso, back, hips, inner and outer thighs, chest and abdominals in conjunction with breathing, postural alignment and body awareness.
FHGE: Lifelong Understanding  Transferable: CSU/UC

DANC 18B  INTERMEDIATE HIP-HOP  1 Unit

DANCE

Degree & Credit Status: Degree-applicable credit course
Prerequisite: DANC 18A.
Advisory: This course is included in the Social & Cultural Dance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Continuation into the intermediate fundamentals of Hip Hop technique and training. Includes the intermediate vocabulary and practice of isolations and across the floor exercises.
FHGE: Lifelong Understanding  Transferable: CSU/UC

DANC 70R  INDEPENDENT STUDY IN  1 Unit

DANCE

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Dance beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU

DENTAL ASSISTING

Biological and Health Sciences
650.949.7351 foothill.edu/dentalasst/

D A 50  ORIENTATION TO DENTAL ASSISTING  2.5 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
2.5 hours lecture. (30 hours total per quarter.)
Introduction to Foothill College Dental Assisting Program for the incoming student. Preview of dental practice, including specialties, history, professional and legal responsibilities and the role of the dental auxiliary; HIPAA, patient privacy, Academic Honor Code, student rights and responsibilities, strategies for student success, stress and time management, record keeping, patient communication and office personnel relations. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D A 51A  INTRODUCTION TO CHAIRSIDE  10.5 Units

DENTAL ASSISTING

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
6.5 hours lecture, 13 hours laboratory. (234 hours total per quarter.)
Introduction to chairside assisting; use and care of dental equipment, patient management, instrument identification; overview of common dental procedures such as composite, amalgam, partials, dentures, root canals, crown and bridge appointments; manipulation of dental materials commonly prepared or used by the dental assistant including temporary dressings, impression materials, cement bases and liners, topical agents, composites, resins and amalgams. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D A 51B  INTERMEDIATE CLINICAL  3 Units

DENTAL ASSISTING

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Periodontal and oral surgery procedures, equipment, and instruments. Registered Dental Assistant orthodontic function. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Grade Type</th>
<th>FHGE: Non-GE Applicable</th>
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<tr>
<td>D A 51C</td>
<td>ADVANCED DENTAL ASSISTING SKILLS</td>
<td>3.5</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade Only</td>
<td>Not Repeatable</td>
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<td></td>
<td>2.5 hours lecture, 4 hours laboratory. (78 hours total per quarter.)</td>
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<td>2 hours lecture, 4 hours laboratory. (78 hours total per quarter.)</td>
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<td></td>
<td>Continuation of techniques introduced in D A 51A and 51B to include pulp vitality testing, fluoride administration, intraoral/extraoral exam, polishing removable partial and full dentures, dental implants, and pedodontic procedures. Theory and practice of coronal polishing. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
<td></td>
<td>Overview of psychological or common medical problems which could lead to an emergency situation in a dental office. Emphasis placed on prevention, management, and legal issues of an emergency response. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
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<td>FHGE: Non-GE Applicable</td>
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<tr>
<td>D A 53A</td>
<td>INTRODUCTION TO RADIOGRAPHY I</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade Only</td>
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<td></td>
<td>2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)</td>
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<td>1 hour lecture. (12 hours total per quarter.)</td>
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<td>Introduction to dental radiology. Emphasis on production, characteristics, biologic effects, radiation safety and protection. Introduction to intraoral long-cone radiographic techniques, film processing and mounting. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
<td></td>
<td>Familiarization with the scope of practice in both general and specialty dental office settings. The emphasis of this survey class will be on the role of the auxiliary personnel in each of the different types of dental practices. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>D A 53B</td>
<td>DENTAL RADIOGRAPHY II</td>
<td>2</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade Only</td>
<td>Not Repeatable</td>
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<td></td>
<td>1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)</td>
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<td>2 hours lecture. (24 hours total per quarter.)</td>
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<td>Intraoral radiographic technique continued with evaluation of film quality, proficient parallelism with the XCP film holders, proper patient management, and a reduction in film errors. Introduction to direct digital panoramic radiographs and indirect intraoral images using PSP plates. Further identification of radiolucent and radiopaque landmarks of the head and neck using the panoramic image. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
<td></td>
<td>Introduction to appointment management, telephone techniques, communication and patient management, dental and office records management; written correspondence, treatment plan and case presentation; accounts receivables. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>D A 53C</td>
<td>DENTAL RADIOGRAPHY III</td>
<td>1</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade Only</td>
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<td></td>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<td>3 hours lecture, 1 hour laboratory. (48 hours total per quarter.)</td>
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<td>Last in the three quarter series of dental radiography. Intraoral technique and film evaluation skills practiced on mannequins and performed on patients. Greater emphasis on time efficiency and patient management. Digital radiography is encouraged to be used for patient care. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
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<td>Introduction to purchasing, inventory and cost control; banking, payroll and tax procedures; resume writing and interviewing techniques. Includes billing procedures, collection of accounts, treatment plans and case presentations, dental insurance procedures. Instruction in both manual and computer applications. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
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<td>D A 56</td>
<td>DENTAL HEALTH EDUCATION</td>
<td>1</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Grade Type: Letter Grade Only</td>
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<td>1 hour lecture. (12 hours total per quarter.)</td>
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<td>2 hours lecture. (36 hours total per quarter.)</td>
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<td>Principles of patient motivation and education; etiology, process and prevention of dental decay and periodontal disease; design and management of a plaque control program, brushing, flossing, adjunctive aids; dietary counseling for caries risk. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
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<td>Discussion of anatomy and morphology of the teeth, the eruption sequence and process; normal occlusion, development and class of malocclusions; anatomy of the skull, arteries and veins, musculature and nervous structures of the head and neck. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.</td>
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<td>FHGE: Non-GE Applicable</td>
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D A 62A  |  DENTAL SCIENCES I  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
2 hours lecture. (24 hours total per quarter.)  
An overview of the embryologic development of the structures and tissues of the head, neck, teeth and oral cavity, histology of the hard and soft tissues of the oral cavity, Developmental and structural defects involving the oral cavity and the teeth. Periodontal diseases, caries process and oral pathology. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 62B  |  DENTAL SCIENCES II  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
2 hours lecture. (24 hours total per quarter.)  
An overview of the embryologic development of the structures and tissues of the head, neck, teeth and oral cavity, histology of the hard and soft tissues of the oral cavity, Developmental and structural defects involving the oral cavity and the teeth. Periodontal diseases, caries process and oral pathology. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 62C  |  DENTAL SCIENCES III  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
2 hours lecture. (24 hours total per quarter.)  
Microbiologic and nutritional conditions related to dentistry; etiology, symptoms, transmission and control of infective and contagious diseases, nutritional physiology, and counseling, effect of nutrition on general dental health. Pharmacology of local anesthetic solutions, analgesic gases, and psychosedatives, and antibiotic agents. Use of nitrous oxide equipment. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 63  |  SPECIAL PATIENT POPULATIONS  |  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture. (12 hours total per quarter.)  
Discussion and development of techniques and/or equipment needed to meet the needs of special patient populations. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 64  |  LAW & ETHICS FOR THE DENTAL ASSISTANT  |  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture. (12 hours total per quarter.)  
Professional, legal and ethical responsibilities of the dental team with an emphasis on dental assisting. The role of the dental assistant with regards to patient communication and office personnel relations.  
FHGE: Non-GE Applicable  Transferable: None

D A 65  |  PIT & FISSURE SEALANTS  |  1.5 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture, 2 hours laboratory. (36 hours total per quarter.)  
Theory and practice for placement of sealants by the Registered Dental Assistant to prevent decay in the pit and fissure areas of the dentition. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 66  |  DENTAL SCIENCES IV  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)  
An overview of the embryologic development of the structures and tissues of the head, neck, teeth and oral cavity, histology of the hard and soft tissues of the oral cavity, Developmental and structural defects involving the oral cavity and the teeth. Periodontal diseases, caries process and oral pathology. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 67  |  DENTAL SCIENCES V  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)  
Theory and practice for placement of sealants by the Registered Dental Assistant to prevent decay in the pit and fissure areas of the dentition. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 68  |  DENTAL SCIENCES VI  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)  
Theory and practice for placement of sealants by the Registered Dental Assistant to prevent decay in the pit and fissure areas of the dentition. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 69  |  DENTAL SCIENCES VII  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)  
Theory and practice for placement of sealants by the Registered Dental Assistant to prevent decay in the pit and fissure areas of the dentition. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 70  |  DENTAL SCIENCES VIII  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)  
Theory and practice for placement of sealants by the Registered Dental Assistant to prevent decay in the pit and fissure areas of the dentition. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 71  |  DENTAL SCIENCES IX  |  1.5 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1.5 hours lecture. (18 hours total per quarter.)  
Introduction to infectious diseases important to dentistry. Instruction on disinfection, instrument decontamination, sterilization procedures and tray set-up preparation. Regulatory compliance agencies such as OSHA, CDC and ADA recommendations. Hazardous materials management and waste management. Protocols and emergency procedures for hazardous and bio-hazardous waste or materials. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 72  |  DENTAL SCIENCES X  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
2 hours lecture. (24 hours total per quarter.)  
Theory and practice for placement of sealants by the Registered Dental Assistant to prevent decay in the pit and fissure areas of the dentition. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 73  |  DENTAL ASSISTING SUPERVISED CLINIC  |  5.5 Units  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: D A 51A.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
17 hours clinic. (204 hours total per quarter.)  
Continuation of techniques introduced in D A 51A; supervised clinical experience in externship environment, chairside dental assisting in general practice and specialty clinics at the UCSF School of Dentistry. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 74  |  DENTAL ASSISTING CLINICAL PRACTICE  |  5.5 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
17 hours clinic. (204 hours total per quarter.)  
Continuation of techniques introduced in D A 51A, 51B and 73; supervised clinical experience in externship environment; advanced and specialty chair side procedures. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 75  |  RDA REVIEW  |  2 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)  
Continuation of techniques introduced in D A 51A, 51B and 73; supervised clinical experience in externship environment; advanced and specialty chair side procedures. Intended for students in the Dental Assisting Program; enrollment is limited to students accepted in the program.  
FHGE: Non-GE Applicable  Transferable: CSU

D A 76  |  LAW & ETHICS FOR THE DENTAL ASSISTANT  |  1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
1 hour lecture. (12 hours total per quarter.)  
Professional, legal and ethical responsibilities of the dental team with an emphasis on dental assisting. The role of the dental assistant with regards to patient communication and office personnel relations.  
FHGE: Non-GE Applicable  Transferable: None
DENTAL HYGIENE

Biological and Health Sciences
650.949.7538 foothill.edu/dentalhygiene/

D H 50 ORIENTATION TO DENTAL HYGIENE 1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: D H 200L.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 1 hour laboratory. (24 hours total per quarter.)
Overview of dental hygiene as a career. Dental terminology, introduction to instrumentation skills, including: modified pen grasp, fulcrams, adapta-
tion, insertion and activation of the explorer. The course will involve some online homework, observation in clinic, and instrumentation on typodonts.
Introduces infectious diseases, control strategies, hazardous materials management and waste management in the dental environment. Strategies & skills for student success in the dental hygiene program. Introduction to evidence-based literature in dental hygiene. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

D H 70R INDEPENDENT STUDY IN DENTAL HYGIENE 1 Unit
D H 71R 2 Units
D H 72R 3 Units
D H 73R 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Dental Hygiene beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable Transferable: CSU

D H 200L INTRODUCTION TO DENTAL HYGIENE 1.5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1.5 hours lecture, 1 hour laboratory. (30 hours total per quarter.)
Introduction to the profession of dental hygiene. Emphasis on dental terminolo-

D H 300B ORAL BIOLOGY II 3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 52B.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
The embryologic development of the structures and tissues of the head, neck, teeth and oral cavity; histology of the hard and soft tissues of the oral cavity. Anatomy of the tooth crown, root and pulp; development and structural defects involving the oral cavity and the teeth. The normal periodontal tissues, oral mucous membranes, and salivary glands. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

D H 302 ASSESSMENT PROCEDURES IN DENTAL HYGIENE 3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 53.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
The first in a three course series in dental hygiene theory and practice. Fo-
cus on the principles of assessment techniques as the first phase of the dental hygiene process of care. The rationale for collection of assessment data, and associated clinical procedures will be discussed. Analysis of current evidence based literature related to the dental hygiene patient assessment procedures. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

D H 304 PRE-CLINICAL DENTAL HYGIENE 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 54.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 9 hours laboratory. (120 hours total per quarter.)
The first in a series in dental hygiene clinical courses. Integrates the scientific and clinical principles underlying the practice of dental hygiene. Performance of clinical procedures and techniques for patient assessment, including prevention of disease transmission, health history, extra-intraoral examination, gingival evaluation and periodontal examination are taught in a pre-clinical setting. Students will practice on typodonts and classmates. The course requires evaluation of clinical performance through demonstration of skill acquisition and level of competency. Field experiences reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

D H 305A INTRODUCTION TO DENTAL RADIOGRAPHY I 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 60A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
The first in a series of four dental radiology courses for the dental hygiene student. Component parts, functions, operations of the dental x-ray unit and radiation safety is emphasized. Relationships between anatomical and radiographic landmarks are analyzed. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU
D H 305C  DENTAL RADIOGRAPHY III  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 68A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
The third in a series of dental radiology courses. Introduction to the radiology laboratory. Emphasis on normal, atypical and pathological structures. Identification of dental anomalies, dental materials and the interpretation of disease. Analysis of the progression of dental caries, periodontal disease, and periapical lesions. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 305D  DENTAL RADIOGRAPHY IV  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 60D.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
This is the fourth and last in the series of dental radiology courses intended for second year dental hygiene students in the program. Emphasis is on the understanding of radiographic localization techniques and common technical, operator, processing errors. Continued application of digital radiography with use of sensors and scanners and alternative imaging techniques. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 308  CLINICAL TECHNIQUE  6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 61A.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 9 hours laboratory. (144 hours total per quarter.)
Continuation of dental hygiene clinical practice and instrumentation techniques including: instrumentation for scaling and root debridement and instrument sharpening. Adjunctive dental hygiene procedures taught include: fluorides, selective coronal polishing. Clinical activities utilize typodonts and student partners. The course requires evaluation of clinical performance through demonstration. Evaluation of best practices through evidence based research. Supportive labs and observation to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting for D H 308. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU
D H 316B PERIODONTICS II 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 57B.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
The second in a series of two periodontics courses for the dental hygiene student. Focus on best practices in periodontics, decision making and treatment planning, implementation of nonsurgical periodontal therapy, interviewing and education to enhance patient motivation, and evidence based therapy for the treatment and care of periodontal disease. The course also covers periodontal surgical procedures, dental implants, periodontal emergencies, legal issues in documentation and reporting. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 318 INTRODUCTION TO CLINIC 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: D H 300B and 308 with a grade of "C" or better; possession of a current CPR certificate; not open to students with credit in D H 61B.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 6 hours clinical laboratory. (108 hours total per quarter.)
First course in a yearlong series of clinical dental hygiene practice. Emphasis on assessing, planning, and implementing comprehensive dental hygiene care for diverse patient populations and management of patients with special needs in a clinical setting. Students apply knowledge, critical thinking, and clinical skills acquired in previous completed dental hygiene courses. Development of progress in clinical performance with each successive academic period. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 320A CLINICAL DENTAL HYGIENE I 3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 62A.
Grade Type: Letter Grade Only
Not Repeatable.
9 hours clinic. (108 hours total per quarter.)
Continuation of dental hygiene clinical practice. Emphasis on assessing, planning, and implementing comprehensive dental hygiene care for diverse patient populations and management of patients with special needs in a clinical setting. Students apply knowledge, critical thinking, and clinical skills acquired in previous completed dental hygiene courses. Additional procedures include fluoride varnish application, placement of dental sealants and individualized oral hygiene instructions. Progress of development in clinical performance will be evaluated with each successive academic period including evaluation of periodontal probing with a passing grade of 75%. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 320B CLINICAL DENTAL HYGIENE II 8.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 62B.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 23 hours clinic. (288 hours total per quarter.)
Continuation of clinical dental hygiene practice providing comprehensive dental hygiene care in a clinic setting on patients. Emphasis on assessing, planning, and implementing comprehensive dental hygiene care for diverse patient populations and management of patients with special needs in a clinical setting. Students apply knowledge, critical thinking, and clinical skills acquired in previous completed dental hygiene courses. Additional procedures include local anesthesia, advanced instrumentation techniques, and locally delivered antimicrobials. Progress of development in clinical performance will be evaluated with each successive academic period including evaluation of periodontal probing with a passing grade of 80%. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 320C CLINICAL DENTAL HYGIENE III 8.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 62C.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 23 hours clinic. (288 hours total per quarter.)
Continuation of clinical dental hygiene practice providing comprehensive dental hygiene care in a clinic setting on patients. Emphasis on assessing, planning, and implementing comprehensive dental hygiene care for diverse patient populations and management of patients with special needs in a clinical setting. Students apply knowledge, critical thinking, and clinical skills acquired in previous completed dental hygiene courses. Additional procedures include soft tissue curettage, alternative fulcums and operatory positioning and interim therapeutic restorations. Progress of development in clinical performance will be evaluated with each successive academic period including evaluation of periodontal probing with a passing grade of 84%. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 320D CLINICAL DENTAL HYGIENE IV 8.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 62D.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 23 hours clinic. (288 hours total per quarter.)
Final course in the series of clinical dental hygiene practice providing comprehensive dental hygiene care in a clinic setting on patients. Emphasis on assessing, planning, and implementing comprehensive dental hygiene care for diverse patient populations and management of patients with special needs in a clinical setting. Students apply knowledge, critical thinking, and clinical skills acquired in previous completed dental hygiene courses. Additional procedures include administration of nitrous oxide/oxygen analgesia. Progress of development in clinical performance will be evaluated with each successive academic period including evaluation of periodontal probing with a passing grade of 92%. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU
D H 322  LOCAL ANESTHESIA  2.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 65.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 1.5 hours laboratory. (42 hours total per quarter.)
The study of local anesthesia administration in dental procedures, including the pharmacology, anatomy, physiology, patient management and emergency procedures associated with local anesthetic procedures. Laboratory and clinical experience in administration techniques for local infiltration, field block and nerve block. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 324  ORAL PATHOLOGY  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 55B.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
The study of pathology of the head, neck, and oral structures. Developmental conditions and diseases of bacterial and viral origin, neoplasms of the oral cavity. Clinical aspects of recognizing deviations from normal, documentation, differential diagnosis and referral. The role of the dental hygienist in education and prevention, early detection and referral of lesions of the head and neck regions. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 326A  COMMUNITY DENTAL HEALTH I  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 58A or 63C.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 3 hours laboratory. (36 hours total per quarter.)
The first course in a year long series in the study of community dental health problems and disparities that exist in health care. The science of epidemiology, research and writing skills, and statistics will be discussed. An analysis of current dental health issues and initial development of a community dental health program. Evaluation of scientific literature will be developed. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 326B  COMMUNITY DENTAL HEALTH II  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 58B or 63D.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Continuation of D H 326A. Emphasis on the steps to developing community dental health programs, including health promotion programs. Local, state, and federal departments of public health services, types of fluoridation, and school-based dental health programs and screenings. Evidence-based decision making will be applied to the dental public health setting. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 326C  COMMUNITY DENTAL HEALTH III  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 58C.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Continuation of D H 326B. Course includes 4 weeks of outside field work to assess and analyze a target group, design lesson plans/program activities and present to target group, and evaluation of program outcomes. Career options for registered dental hygienists and scientific communication formats will also be discussed. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 328A  CLINICAL DENTAL HYGIENE THEORY I  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 75A.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
Discussion and demonstration of advanced and supplemental dental hygiene functions: digital intraoral photography, dental hygiene instrumentation, ultrasonic scaling techniques, soft tissue curettage and locally delivered antimicrobials. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting for D H 320B. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 328B  CLINICAL DENTAL HYGIENE THEORY II  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 75B.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
Discussion and demonstration of advanced and supplemental dental hygiene functions, interim therapeutic restorations, advanced instrumentation techniques, advanced local anesthesia techniques, dentinal desensitization, air polishing, implants in dentistry, orthodontic therapy and new technologies in dental hygiene. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting for D H 320C. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

D H 328C  CLINICAL DENTAL HYGIENE THEORY III  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 75C.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
Preparation for clinical licensing board examinations. Overview of exam criteria, identification an appropriate patient for clinical state and/or regional board licensing exam for Dental Hygienists. Strategies for exam preparation and anticipating methods which will influence a successful board experience. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU
D H 330          NITROUS OXIDE/OXYGEN ANALGESIA  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 67.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 1 hour laboratory. (24 hours total per quarter.)
The study of nitrous oxide/oxygen analgesia used in the dental practice. Emphasis will be placed on understanding the mechanism of sedation, risks and benefits associated with nitrous oxide sedation, how to administer and properly document the use of nitrous oxide. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

D H 332          ETHICS, LAW & BUSINESS PRACTICES  3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in D H 64.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
The study of ethics, jurisprudence, business practices, finance, management, and policy creation for oral health care professionals, programs and businesses. This course examines current societal and professional issues and their impact on dental hygiene business practices and management. The course will cover the following areas: planning, strategy and leadership, legal and ethical issues affecting businesses in the oral health care sector, financial statements, and personnel considerations. The course will prepare students to take the California Dental Hygiene Law & Ethics exam, required for licensing as a Registered Dental Hygienist. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

D H 350A          DENTAL HYGIENE RESEARCH & CAPSTONE PROJECT I  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
First in a series of three capstone courses. Introduction to the capstone project and evaluation of scientific evidence-based literature. Basic research design components and writing skills will be discussed. Analysis of career options for dental hygienists including public health, research, education, corporate sales and marketing, administration and advocacy. Dental workforce models will be explored. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

D H 350B          DENTAL HYGIENE RESEARCH & CAPSTONE PROJECT II  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
The second in a series of three capstone courses, continuation of D H 350A. Emphasis on development of capstone project proposal and implementation, including project description, assessment tools, project goals and objectives and activities. Field work to implement capstone project will be completed. Interprofessional practice within the health care profession will be discussed. Evidence-based research in health care decision making, the oral-systemic link and the importance of lifelong learning will be explored. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

D H 350C          DENTAL HYGIENE RESEARCH & CAPSTONE PROJECT III  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
The third course in a series of three capstone courses. Completion of capstone project including final field work to evaluate project outcomes and statistical analysis. The final version of the written literature review and project plan will be completed. Scientific communication methods with an emphasis on poster presentation techniques will be addressed. Contemporary issues in dental hygiene including aging populations, health care reform and access to care will be discussed. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

D H 352          HEALTH COMMUNICATION & CULTURAL ISSUES  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Health communication and multicultural issues unique to the dental and medical fields. Topics include intercultural communication; health literacy; interpersonal, small group, electronic, and nonverbal communication; listening; persuasion, caring for limited English proficient people; and working with interpreters. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the completion degree track.

FHGE: Non-GE Applicable Transferable: none

D H 354          HEALTH CARE MANAGEMENT  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
An introduction to business practices, finance, management, and policy creation for oral health care programs and businesses. This course examines current societal and professional issues and their impact on dental hygiene business practices and management. The course will cover the following areas: planning, strategy and leadership, legal and ethical issues affecting businesses in the oral health care sector, financial statements, and personnel considerations. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the completion degree track.

FHGE: Non-GE Applicable Transferable: none

D H 356          EDUCATION THEORY, PRACTICE & ADMINISTRATION  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
The study of education theories and principles for didactic, lab and clinical courses. The faculty role in active teaching and learning, development of critical thinking and reflective writing, development of curriculum, outcomes and competencies, and course delivery methods. Theory and practices of clinical instruction and supervision, related to psychomotor skill development, competency-based evaluation, student mentoring and remediation. Examination of organizational and administrative philosophy and practice in curriculum planning, implementation and evaluation based on accreditation standards. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the completion degree track.

FHGE: Non-GE Applicable Transferable: none
DMS 50A  DIAGNOSTIC MEDICAL PRINCIPLES & PROTOCOLS  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: BIOL 40A, 40B and 40C.
Corequisites: DMS 50B, 60A and 72A.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
An intensive course about fundamentals of ultrasound principles, protocols, and scanning involving the major abdominal organ structures, gynecology, obstetrics, and vessels. Sonographic terminology, orientation and descriptions of normal and abnormal structures. It is assumed the student has a thorough knowledge of gross and sectional anatomy. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

DMS 50B  SONOGRAPHY & PATIENT CARE  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: DMS 50A.
Corequisites: BIOL 40A, 40B and 40C.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, (24 hours total per quarter.)
Defines the student sonographer's role on the medical team. It prepares the student to enter the clinical environment, including instruction in sonographer safety and ergonomics. Legal, ethical, legislative and regulatory issues, including scope of practice and standards. Patient care techniques, clinical assessment, diagnosis and treatment. Interacting with cultural, age, and the special needs populations. Professionalism, competency-based education and leadership. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

DMS 51A  SECTIONAL ANATOMY  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: BIOL 40A, 40B and 40C or equivalent.
Advisory: Not open to students with credit in R T 75.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, (36 hours total per quarter.)
Human anatomy of the head and body cavities is presented for the health care professional in transverse, sagittal and coronal imaging planes, with specific correlation to sonographic, computed tomographic and magnetic resonance imaging modalities. Anatomic reference points, intersecting planes and medical terminology are used to identify relationships of organs as well as pathologic alterations. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

DMS 52A  PHYSICAL PRINCIPLES OF DIAGNOSTIC MEDICAL SONOGRAPHY I  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 50A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Principles of diagnostic ultrasound, wave characteristics, propagation, acoustic variables, and review of mathematical skills. Additional emphasis on transducers, pulsed waves, intensities, beam shaping, Huygens' principle, resolution, and display modes. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

DMS 52B  PHYSICAL PRINCIPLES OF DIAGNOSTIC MEDICAL SONOGRAPHY II  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 52A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
A continuation of DMS 52A with an emphasis on transducer types, 2-D imaging, pulse echo instrumentation, image processing, dynamic range as well as harmonic imaging. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

DMS 52C  PHYSICAL PRINCIPLES OF DIAGNOSTIC MEDICAL SONOGRAPHY III  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 52B.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
A continuation of DMS 52B with an emphasis on advanced principles in medical ultrasound instrumentation, artifacts, quality assurance, bioeffects, volume rendering, use of doppler imaging and sonographic quality control procedures. Preparation for national examinations. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

DMS 53A  DIAGNOSTIC MEDICAL SONOGRAPHY I  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 50A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Anatomy and physiology related to the major abdominal organs and major abdominal vessels. Assessment including physical, clinical symptoms, and laboratory findings. Related pathology and its sonographic appearance involving these structures. Scanning protocols, technical factors and image quality. One hour per week will be spent in completing online exams and working on patient case studies. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
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<tr>
<td>DMS 55B</td>
<td>OBSTETRICS I</td>
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<td>Degree-applicable credit course</td>
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<td>2 hours lecture, 1 hour laboratory (laboratory meets every other week). (30 hours total per quarter.)</td>
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<td>Advanced obstetrical sonography. Abnormal second and third trimester fetal growth and sonographic measurements with correlations to accepted standards. Abnormalities, pathology and maternal complications. One-half hour per week will be spent in completing online exams and working on patient case studies. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.</td>
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<td>DMS 55A</td>
<td>OBSTETRICS II</td>
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<td>2 hours lecture, 1 hour laboratory (laboratory meets every other week). (30 hours total per quarter.)</td>
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<td>Normal fetal growth and sonographic measurements with correlation to accepted standards. Development of the placenta, amniotic fluid and cord. Abnormalities, pathology and maternal complications. One-half hour per week will be spent in completing online exams and working on patient case studies. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.</td>
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<td>DMS 56A</td>
<td>VASCULAR SONOGRAPHY</td>
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<td>Not Repeatable.</td>
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<td>3 hours lecture. (36 hours total per quarter.)</td>
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<td>Vascular terminology, principles including doppler physics. Interpretation of frequency spectral analysis. Intracranial, cerebrovascular and peripheral venous applications related to vascular technology. Normal, abnormal and pathologic states of the human vascular system. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.</td>
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<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<tr>
<td>DMS 56B</td>
<td>ADVANCED APPLICATIONS OF VASCULAR TECHNOLOGY</td>
<td>2</td>
<td>Degree-applicable credit course</td>
<td>DMS 56A.</td>
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<td>Grade Type: Letter Grade Only</td>
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<td>Not Repeatable.</td>
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<td>2 hours lecture. (24 hours total per quarter.)</td>
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<td>A continuation of DMS 56A for the advanced principles and theory of noninvasive vascular technology. Comprehensive study of arterial and venous applications, including peripheral arterial, abdominal vascular, and assessment of the reproductive tract. Designed to help prepare individuals for the National Board for credentialing as a Registered Vascular Technologist. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.</td>
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<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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</tbody>
</table>
DMS 60A CRITIQUE & PATHOLOGY I 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: BIOL 40A, 40B and 40C.
Corequisites: DMS 50A, 50B and 72A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Emphasis on communication skills via written and oral case presentations and critiques. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

DMS 60B CRITIQUE & PATHOLOGY II 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 60A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on abdominal subjects. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

DMS 60C CRITIQUE & PATHOLOGY III 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 60B.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on gynecological and abdominal subjects. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

DMS 60D CRITIQUE & PATHOLOGY IV 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 60C.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on obstetrical subjects. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

DMS 60E CRITIQUE & PATHOLOGY V 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 60D.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on superficial parts, pediatric, neonatal and vascular subjects. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

DMS 60F CRITIQUE & PATHOLOGY VI 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 60E.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on additional subjects in superficial parts, pediatric, neonatal and vascular subjects. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

DMS 70A CLINICAL PRECEPTORSHIP I 11.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 72A.
Grade Type: Letter Grade Only
Not Repeatable.
32 hours laboratory. This is a 13 week course. (416 hours total per quarter)
This course builds on the clinical competencies of DMS 72A. Preceptorship to obtain the technical expertise with emphasis on mastery of knowledge, skills, and abilities required performing sonographic studies and procedures. Emphasis is on elementary level for abdominal and gynecological examinations as to delineate complete anatomic and functional information for interpretation. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

DMS 70B CLINICAL PRECEPTORSHIP II 10.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 70A.
Grade Type: Letter Grade Only
Not Repeatable.
32 hours laboratory. (384 hours total per quarter.)
Second course in the DMS 70 series. Preceptorship in a medical setting allows the student to obtain the technical expertise with emphasis on mastery of knowledge, skills, and abilities required performing sonographic studies and procedures. The student is exposed to varied methodologies and practice philosophies in a variety of clinical settings. Major emphasis is on the knowledge and performance for abdominal, obstetrics, and gynecology examinations. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

DMS 70C CLINICAL PRECEPTORSHIP III 9.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: DMS 70B.
Grade Type: Letter Grade Only
Not Repeatable.
32 hours laboratory. This is an 11 week course. (352 hours total per quarter)
Third course in the DMS 70 series. Preceptorship in a medical setting allows the student to obtain the technical expertise with emphasis on mastery of knowledge, skills, and abilities required performing sonographic studies and procedures. Major emphasis is on intermediate-advanced level of knowledge and competency for abdominal, gynecology, obstetrics, and vascular sonography. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU
DMS 200  INTRODUCTION TO DIAGNOSTIC MEDICAL SONOGRAPHY  
Degree & Credit Status: Non-degree-applicable credit course 
Advisory: Previous completion of anatomy and physiology courses (e.g., BIOL 40A, 40B, 40C) and medical terminology course (e.g., AHS 52) strongly recommended to be successful in this course. 
Grade Type: Letter Grade Only 
Not Repeatable. 
1.5 hours lecture, 1.5 hours laboratory. (36 hours total per quarter.) Introduction to the profession of diagnostic medical sonography. Emphasis on terminology, communication skills, legal and ethical aspects of diagnostic medical sonography practice and credentialing requirements. An overview of the scope of diagnostic medical sonography, including ultrasound guided invasive procedures, infection control and correct equipment handling. Intended for students applying to the diagnostic medical sonography program. 
FHGE: Non-GE Applicable  Transferable: None

ECONOMICS

Business and Social Sciences
650.949.7322 foothill.edu/economics/

ECON 1A  PRINCIPLES OF MACROECONOMICS  
Degree & Credit Status: Degree-applicable credit course 
Prerequisite: Elementary Algebra or equivalent. 
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; MATH 105. 
Grade Type: Letter Grade or Pass/No Pass 
Not Repeatable. 
5 hours lecture. (60 hours total per quarter.) Fundamental economic concepts; determination of national income and employment; income fluctuation; money and the banking system; government monetary and fiscal policies; current economic problems; economic development; international trade. ECON 1A and 1B may be taken in either order. 
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

ECON 1B  PRINCIPLES OF MICROECONOMICS  
Degree & Credit Status: Degree-applicable credit course 
Prerequisite: Elementary Algebra or equivalent. 
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; MATH 105. 
Grade Type: Letter Grade or Pass/No Pass 
Not Repeatable. 
5 hours lecture. (60 hours total per quarter.) Micro analysis of economic life. Allocation of resources. Consumer behavior. Pricing and output decisions. Distribution of wealth and income. Nature and characteristics of business enterprises. International trade. Comparative economic systems. ECON 1A and 1B may be taken in either order. 
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC
<table>
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<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
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<td>ECON 9</td>
<td>POLITICAL ECONOMY</td>
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<td>Letter Grade or Pass/No Pass</td>
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<td>ECON 9H</td>
<td>HONORS POLITICAL ECONOMY</td>
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<td>Honors Institute participant</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable</td>
<td>CSU/UC</td>
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<td>ECON 25</td>
<td>THE GLOBAL ECONOMY</td>
<td>4</td>
<td>Degree-applicable credit course</td>
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<td>Letter Grade or Pass/No Pass</td>
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<td>ECON 54H</td>
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<td>ECON 70R</td>
<td>INDEPENDENT STUDY IN ECONOMICS</td>
<td>1</td>
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<td>Letter Grade or Pass/No Pass</td>
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**EDUCATION**

Business and Social Sciences
650.949.7322  foothill.edu/bss/

**EDUC 2**
INTRODUCTION TO ELEMENTARY EDUCATION
5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T strongly recommended.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 4 hours laboratory, (96 hours total per quarter.)
This course provides an overview of the American education system for students interested in teaching in grades K-12. Educational philosophies, history of education in the United States, and major economic, political and social policies that have affected the school system will be explored. In addition, the structure of the K-12 school system, the teaching profession, the social and cultural contexts of schooling and an overview of curriculum design will be covered. The course requires a minimum of 48 hours of fieldwork in a public school elementary classroom, under the guidance of an approved credentialed K-5 classroom teacher.

FHGE: Non-GE Applicable
Transferable: CSU/UC

**EMERGENCY MEDICAL SERVICES (EMT/EMR/PARAMEDIC)**

Biological and Health Sciences
408.745.8022  foothill.edu/ems/

**EMS 50**
EMERGENCY MEDICAL RESPONSE
5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in EMT/EMR/Paramedic
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 4 hours laboratory, (96 hours total per quarter.)
This course provides an introduction to the medical aspects of emergency medical services. The student will learn and use skills that are required by the Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. The course meets or exceeds the 2008 Emergency Medical Services Educational Standards for Emergency Medical Response and meets Guidelines 2010 for First Aid and 2010 Consensus on Science for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care.

FHGE: Non-GE Applicable
Transferable: CSU
EMS 52  EMERGENCY MEDICAL TECHNICIAN: BASIC PART A
5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: EMS 50 or 400, or First Responder Course, or equivalent work experience as determined by the instructor.
Corequisite: EMS 52A.
Advisory: EMS 52 and 53 may not be taken concurrently; not open to students with credit in EMT 50 or 304.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Intended to instruct a student to the level of Emergency Medical Technician-1, who serves as a vital link in the chain of the health care team. It is recognized that the majority of prehospital emergency medical care will be provided by the EMT-1. Includes all skills necessary for the individual to provide emergency medical care at a basic life support level with a fire department, or other specialized service. First of two courses required to be eligible to take the California written and practical exam for certification as an Emergency Medical Technician-1.
FHGE: Non-GE Applicable  Transferable: CSU

EMS 52A  EMERGENCY MEDICAL TECHNICIAN SIMULATION LABORATORY I
0.5 Units

Degree & Credit Status: Degree-applicable credit course
Corequisite: EMS 52.
Advisory: EMS 52A and 53A may not be taken concurrently.
Grade Type: Letter Grade Only
Not Repeatable.
1.5 hours laboratory. (18 hours total per quarter.)
First in a two course series, which provides the student with hands on application of skills necessary to work as an emergency medical technician (EMT). Students will participate in patient assessment scenarios focused on medical complaints and treatments of various diseases, to build competence and prepare to sit for the state certification exam and enter into the EMT workforce.
FHGE: Non-GE Applicable  Transferable: CSU

EMS 53  EMERGENCY MEDICAL TECHNICIAN: BASIC PART B
5.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: EMS 52.
Corequisite: EMS 53A.
Advisory: EMS 53 is part two of two courses required to be eligible to take the California State written and practical exam for certification as an Emergency Medical Technician-1; EMS 52 and 53 may not be taken concurrently; not open to students with credit in EMT 51 or 305.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory, 2 hours clinic. (108 hours total per quarter.)
Second of two courses required to be eligible to take the California State written and practical exam for certification as an Emergency Medical Technician-1. Intended to instruct a student to the level of Emergency Medical Technician-1 who serves as a vital link in the chain of the health care team. Includes all skills necessary for the individual to provide emergency medical care at a basic life support level with a fire department, ambulance, or other specialized service.
FHGE: Non-GE Applicable  Transferable: CSU

EMS 53A  EMERGENCY MEDICAL TECHNICIAN SIMULATION LABORATORY II
0.5 Units

Degree & Credit Status: Degree-applicable credit course
Corequisite: EMS 53.
Advisory: EMS 53A is part two of two courses required to be eligible to take the California State written and practical exam for certification as an Emergency Medical Technician-1; EMS 52A and 53A may not be taken concurrently.
Grade Type: Letter Grade Only
Not Repeatable.
1.5 hours laboratory. (18 hours total per quarter.)
Second in a two course series, which provides the student with hands on application of skills necessary to work as an emergency medical technician (EMT). Students will participate in patient assessment scenarios focused on trauma and treatment of various mechanisms of injuries, to build competence and prepare to sit for the state certification exam and enter into the EMT workforce.
FHGE: Non-GE Applicable  Transferable: CSU

EMS 60A  PARAMEDIC COGNITIVE & AFFECTIVE IA
9 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: BIOL 40A or equivalent (with laboratory).
Corequisite: EMS 60B.
Advisory: Not open to students with credit in EMTP 60A or 100A.
Grade Type: Letter Grade Only
Not Repeatable.
9 hours lecture. (108 hours total per quarter.)
First of three modularized lecture series in which paramedic students will learn and discuss the EMS System, understand the relationship of anatomy and physiology of the human body, life span of the patient, cellular function and disease, medical terminology, and pharmacology related to patient care. Intended for students in the Paramedic Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

EMS 60B  PARAMEDIC COGNITIVE, PSYCHOMOTOR & AFFECTIVE IB
3 Units

Degree & Credit Status: Degree-applicable credit course
Corequisite: EMS 60A.
Advisory: Not open to students with credit in EMTP 60B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 6.5 hours laboratory, (90 hours total per quarter.)
Paramedic skills presented: proper hand washing; personal protective equipment; patient assessment; intravenous access; intraosseous infusion; pharmacology; medication administration; airway management: endotracheal intubation, oropharyngeal airway, nasopharyngeal airway, suctioning, dual lumen airways; advanced cardiac life support ambulance 911 call simulations and case studies; synchronized cardioversion; transcunaneous pacing; defibrillation; cardiovascular/chest pain emergency 911 call simulations; end tidal carbon dioxide monitoring; capnography; 12 lead ECG interpretation.
Intended for students in the Paramedic Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<th>Corequisites</th>
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<td>EMS 61A</td>
<td>PARAMEDIC COGNITIVE &amp; AFFECTIVE IIA</td>
<td>9</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
<td>Prerequisites: EMS 60A and 60B.</td>
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<td>EMS 60A and 60B</td>
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<td>PARAMEDIC COGNITIVE, AFFECTIVE &amp; PSYCHOMOTOR IIB</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
<td>Prerequisites: EMS 60A and 60B.</td>
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<td>EMS 62A</td>
<td>PARAMEDIC COGNITIVE &amp; AFFECTIVE IIIA</td>
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<td>Prerequisites: EMS 61A and 61B.</td>
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<td>PARAMEDIC COGNITIVE, AFFECTIVE &amp; PSYCHOMOTOR IIIB</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
<td>Prerequisites: EMS 61A and 61B.</td>
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<td>Not Repeatable</td>
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<td>EMS 63A</td>
<td>PARAMEDIC HOSPITAL SPECIALTY ROTATIONS</td>
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<td>Prerequisites: EMS 60A and 60B.</td>
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<td>EMS 63B</td>
<td>PARAMEDIC HOSPITAL EMERGENCY DEPARTMENT ROTATIONS</td>
<td>4.5</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
<td>Prerequisites: EMS 60A and 60B.</td>
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<td>EMS 200</td>
<td>PARAMEDIC ACADEMY</td>
<td>1.5 Units</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course. Prerequisite: Current CPR card; current EMT license; at least 2 years of experience as an EMT. Advisory: Not open to students with credit in EMTP 200. Grade Type: Letter Grade Only Not Repeatable. 6 hours lecture, 36 hours laboratory. This is a 1 week course. (42 hours total per quarter.) Introduction to the profession of paramedicine. Emphasis on paramedic terminology, communication skills, licensure, documentation, patient assessments, and skills proficiency. Discussion of the requirements for the paramedic program. Intended for students entering or considering to enter the paramedic program. This course is designed to prepare the student with the basic knowledge and skills necessary to succeed in the Paramedic Academy. FHGE: Non-GE Applicable Transferable: None</td>
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<td>EMS 64A</td>
<td>Paramedic Ambulance Field Internship I</td>
<td>13 Units</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course. Advisory: Not open to students with credit in EMTP 64A or 103A. Grade Type: Letter Grade Only Not Repeatable. 40 hours clinic. (480 hours total per quarter.) Application of paramedic knowledge and skills in the clinical setting as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the task of initiating, providing, and directing entire emergency patient care while under the supervision of a preceptor. First of two ambulance field internships required for certification as an EMT-Paramedic in California. Intended for students in the Paramedic Program; enrollment is limited to students accepted in the program. FHGE: Non-GE Applicable Transferable: CSU</td>
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<tr>
<td>EMS 64B</td>
<td>Paramedic Ambulance Field Internship II</td>
<td>13 Units</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course. Advisory: Not open to students with credit in EMTP 64B or 103B. Grade Type: Letter Grade Only Not Repeatable. 40 hours clinic. (480 hours total per quarter.) Application of paramedic knowledge and skills in the clinical setting as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the task of initiating, providing, and directing entire emergency patient care while under the supervision of a preceptor. Second of two ambulance field internships required for certification as an EMT-Paramedic in California. Intended for students in the Paramedic Program; enrollment is limited to students accepted in the program. FHGE: Non-GE Applicable Transferable: CSU</td>
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<td>EMS 120</td>
<td>Emergency Medical Services Academy</td>
<td>8 Units</td>
<td>Degree &amp; Credit Status: Degree-applicable credit course. Prerequisite: EMS 53. Advisory: Not open to students with credit in EMT 120 or 309. Grade Type: Letter Grade Only Not Repeatable. 6 hours lecture, 6 hours laboratory. (144 hours total per quarter.) Students will participate in physical training identical to that of EMTs employed by large private ambulance providers. Heavy emphasis is placed on training in patient moving and lifting, documentation, scenario practice, customer service and medical legal issues. Mock interviews will be conducted by job recruiters from local public and private agencies. Successful completion of the class will result in a stronger first time job applicant. Intended by job recruiters from local public and private agencies. Successful completion of the class will result in a stronger first time job applicant. Intended for students interested in a career as an Emergency Medical Technologist. FHGE: Non-GE Applicable Transferable: CSU</td>
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<td>EMS 600</td>
<td>Emergency Medical Technician: Basic Part A</td>
<td>0 Units</td>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course. Prerequisite: EMS 50 or 400, or First Responder Course, or equivalent work experience as determined by the instructor. Corequisite: EMS 401A. Grade Type: Non-credit course that receives no grade Unlimited Repeatability. 4 hours lecture, 3 hours laboratory. (84 hours total per quarter.) Intended to instuct a student to the level of Emergency Medical Technician-1 who serves as a vital link in the chain of the health care team. It is recognized that the majority of prehospital emergency medical care will be provided by the EMT-1. Includes all skills necessary for the individual to provide emergency medical care at a basic life support level with a fire department, or other specialized service. First of two courses required to be eligible to take the California written and practical exam for certification as an Emergency Medical Technician-1. FHGE: Non-GE Applicable Transferable: None</td>
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<td>EMS 400</td>
<td>Emergency Medical Response Noncredit</td>
<td>0 Units</td>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course. Grade Type: Non-credit course that receives no grade Unlimited Repeatability. 4 hours lecture, 4 hours laboratory. (96 hours total per quarter.) Provides the student with the knowledge and skills necessary to work as an emergency medical responder (EMR) to help sustain life, reduce pain and minimize the consequences of injury or sudden illness until more advanced medical help takes over. The course meets or exceeds the 2008 Emergency Medical Services Educational Standards for Emergency Medical Response and meets Guidelines 2010 for First Aid and 2010 Consensus on Science for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Students must successfully pass this course to enter the EMT course. FHGE: Non-GE Applicable Transferable: None</td>
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<td>EMS 401</td>
<td>Emergency Medical Technician: Basic Part A Noncredit</td>
<td>0 Units</td>
<td>Degree &amp; Credit Status: Non-degree-applicable non-credit course. Prerequisite: EMS 50 or 400, or First Responder Course, or equivalent work experience as determined by the instructor. Corequisite: EMS 401A. Grade Type: Non-credit course that receives no grade Unlimited Repeatability. 4 hours lecture, 3 hours laboratory. (84 hours total per quarter.) Intended to instuct a student to the level of Emergency Medical Technician-1 who serves as a vital link in the chain of the health care team. It is recognized that the majority of prehospital emergency medical care will be provided by the EMT-1. Includes all skills necessary for the individual to provide emergency medical care at a basic life support level with a fire department, or other specialized service. First of two courses required to be eligible to take the California written and practical exam for certification as an Emergency Medical Technician-1. FHGE: Non-GE Applicable Transferable: None</td>
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EMS 401A | EMERGENCY MEDICAL TECHNICIAN SIMULATION LABORATORY I NONCREDIT
Degree & Credit Status: Non-degree-applicable non-credit course
Corequisite: EMS 401.
Advisory: EMS 401A and 402A may not be taken concurrently.
Grade Type: Non-credit course that receives no grade
1.5 hours laboratory. (18 hours total per quarter.)
First in a two course series, which provides the student with hands on application of skills necessary to work as an emergency medical technician (EMT). Students will participate in patient assessment scenarios focused on medical complaints and treatments of various diseases, to build competence and prepare to sit for the state certification exam and enter into the EMT workforce.

EMS 402 | EMERGENCY MEDICAL TECHNICIAN: BASIC PART B NONCREDIT
Degree & Credit Status: Non-degree-applicable non-credit course
Prerequisite: EMS 401.
Corequisite: EMS 402A.
Advisory: EMS 402 is part two of two courses required to be eligible to take the California State written and practical exam for certification as an Emergency Medical Technician-1; EMS 401 and 402 may not be taken concurrently.
Grade Type: Non-credit course that receives no grade
4 hours lecture, 3 hours laboratory, 2 hours clinic. (108 hours total per quarter.)
Second of two courses required to be eligible to take the California State written and practical exam for certification as an Emergency Medical Technician-1. Intended to instruct a student to the level of Emergency Medical Technician-Basic who serves as a vital link in the chain of the health care team. Includes all skills necessary for the individual to provide emergency medical care at a basic life support level with a fire department, ambulance, or other specialized service.

EMS 402A | EMERGENCY MEDICAL TECHNICIAN SIMULATION LABORATORY II NONCREDIT
Degree & Credit Status: Non-degree-applicable non-credit course
Corequisite: EMS 402.
Advisory: EMS 402A is part two of two courses required to be eligible to take the California State written and practical exam for certification as an Emergency Medical Technician-1; EMS 401A and 402A may not be taken concurrently.
Grade Type: Non-credit course that receives no grade
1.5 hours laboratory. (18 hours total per quarter.)
Second in a two course series, which provides the student with hands on application of skills necessary to work as an emergency medical technician (EMT). Students will participate in patient assessment scenarios focused on trauma and treatment of various mechanisms of injuries, to build competence and prepare to sit for the state certification exam and enter into the EMT workforce.

ENGR 6 | ENGINEERING GRAPHICS 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 48C or equivalent.
Advisory: ENGL 110 or ESLL 125.
Grade Type: Letter Grade or Pass/No Pass
4 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
The application of orthographic projection to detail and assembly drawings, with examples from various engineering fields. Geometric construction, sketching, dimensioning for interchangeable assembly and specification of materials. Graphical analysis, documentation and presentation of engineering information. Theory of orthographic projection and its application to graphical solution of the more advanced three-dimensional space problems. Investigation of relationships between points, lines, planes and solids. Use of solid modeling computer program in carrying out the above course components.

ENGR 10 | INTRODUCTION TO ENGINEERING 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: ENGL 110 or ESLL 125; UC will accept for transfer credit either ENGR 10 or ENGR 49, not both; not open to students with credit in ENGR 20.
Grade Type: Letter Grade or Pass/No Pass
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
A first experience in engineering, this course is open to all students intending to major in engineering or who want to try out engineering. Students will gain experience with project management and design, insights from discussions on ethics and environmental impact and skills in written and oral technical communication.

ENGR 11 | PROGRAMMING & PROBLEM-SOLVING IN MATLAB 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 1B or 1BH.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
This course utilizes the MATLAB environment to provide students with a working knowledge of computer-based problem-solving methods relevant to science and engineering. It introduces the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Examples and assignments in the course are drawn from practical applications in engineering, physics, and mathematics.

ENGR 35 | STATICS 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: MATH 1B or 1BH; PHYS 4A.
Grade Type: Letter Grade or Pass/No Pass
5 hours lecture. (60 hours total per quarter.)
Principles of statics as applied to particles and rigid bodies in two and three dimensions under concentrated and distributed force systems. Equilibrium conditions in structures, machines, beams and cables. Determination of centroids and moments of inertia. Dry friction and methods of virtual work.
ENGR 37  INTRODUCTION TO CIRCUIT ANALYSIS  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PHYS 4B.
Corequisite: MATH 2A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Analysis of lumped, linear circuits in steady state DC and AC. Principals and
laws are used, such as Ohm’s Law and Kirchhoff’s Law, Thevenin’s and
Norton’s Theorem. Methods of analyzing circuits also include Linearity,
Superposition, Source Transformation, and Maximum Power Transfer. First
and second order circuits’ complete response, AC power and steady-state
analysis, frequency and transient response and circuits using op-amps.
FHGE: Non-GE Applicable  Transferable: CSU/UC

ENGR 37L  CIRCUIT ANALYSIS LABORATORY  2 Units
Degree & Credit Status: Degree-applicable credit course
Corequisite: Completion of or concurrent enrollment in ENGR 37.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
Practical verification of theorems and concepts learned in ENGR 37
through experimentation. Included will be experiments in DC and AC
circuits involving the utilization of a variety of instruments, such as DC/
AC meters, regulated power supplies, signal generators, oscilloscopes and
frequency counters.
FHGE: Non-GE Applicable  Transferable: CSU/UC

ENGR 40  INTRODUCTION TO CLEAN ENERGY TECHNOLOGY  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: CHEM 25 or equivalent; ability to do basic engineering calcula-
tions, including use of spreadsheets.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Introduces the technical student to the field of clean energy technology,
including modern energy systems and utility infrastructure, fossil fuel and
renewable energy power generation, solar photovoltaic (PV) and wind
technology, buildings as systems, green and LEED building, smart energy
and active distribution (microgrid concept), transportation energy and
advanced transportation solutions, and the future of sustainable energy
systems. Overview of the energy industry, environmental and economic
considerations, and key research and policy areas for clean and sustainable
energy solutions. Provides students with a conceptual framework and foun-
dation to proceed to more advanced study, as well as exploring emerging
clean energy careers.
FHGE: Non-GE Applicable  Transferable: CSU/UC

ENGR 47  DYNAMICS  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: ENGR 35.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Intended for engineering majors planning to transfer to four-year institu-
tions. It covers the fundamentals of kinematics and kinetics of particles and
rigid bodies. Topics include general and relative motion, force and accelera-
tion, work and energy, and impulse and momentum analyzed in two and
three dimensions. Provides an introduction to vibrations and oscillations.
FHGE: Non-GE Applicable  Transferable: CSU/UC

ENGR 49  ENGINEERING PROFESSION  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will accept for transfer credit either ENGR 10 or ENGR 49,
not both.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
A study of the engineering profession, its requirements, opportunities and
responsibilities. Exposure to engineers and their educational, personal, and
career paths. Review of engineering ethics. Students formulate a career
plan.
FHGE: Non-GE Applicable  Transferable: CSU/UC

ENGR 70R  INDEPENDENT STUDY IN ENGINEERING  1 Unit
ENGR 71R  2 Units
ENGR 72R  3 Units
ENGR 73R  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Engi-
neering beyond the classroom by completing a project or an assignment
arranged by agreement between the student and instructor. The student is
required to contract with the instructor to determine the scope of assign-
ment and the unit value assigned for successful completion. Students may
take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU

ENGR 72R  3 Units
ENGR 73R  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Engi-
neering beyond the classroom by completing a project or an assignment
arranged by agreement between the student and instructor. The student is
required to contract with the instructor to determine the scope of assign-
ment and the unit value assigned for successful completion. Students may
take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU
ENGLISH

ENGL 1A  COMPOSITION & READING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Corequisite: For students who do not meet the prerequisite requirement, concurrent enrollment in ENGL 246A or ESLL 201A or NCEN 401A is required, depending on placement by multiple measures.
Advisory: Not open to students with credit in ENGL 1AH; students may enroll in ENGL 1A or 1T, but not both, for credit.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Techniques and practice of expository and argumentative writing based on critical reading and thinking about texts. Reading focused primarily on works of non-fiction prose, chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. Fulfills the Foothill College reading and composition requirement for the AA/AS degree and the university-transfer general education requirement in English reading and written composition.
FHGE: English  Transferable: CSU/UC

ENGL 1AH  HONORS COMPOSITION & READING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; Honors Institute participant.
Advisory: Not open to students with credit in ENGL 1A or 1T.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Techniques and practice of expository and argumentative writing based on critical reading and thinking about texts. Reading focused primarily on works of non-fiction prose, chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. Fulfills the Foothill College reading and composition requirement for the AA/AS degree and the university-transfer general education requirement in English reading and written composition. The honors section offers rigorous preparation in analytic reading and writing skills for students intending to transfer to a four-year college or university. Provides opportunity to engage contemporary social and ethical issues through small group discussion, a structured sequence of papers requiring higher-level thinking tasks, and collaborative projects. Emphasis is placed on multiple drafts and substantive revision to produce articulate writing appropriate to academic disciplines. Research paper is required.
FHGE: English  Transferable: CSU/UC

ENGL 1B  COMPOSITION, CRITICAL READING & THINKING THROUGH LITERATURE  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: One of the following: ENGL 1A, 1AH, or 1S & 1T.
Advisory: Not open to students with credit in ENGL 1BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Further development in the technique and practice of analytical, critical, and argumentative writing through critical reading of literature. Course focuses on literary works from major genres to promote appreciation of literature and represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. Formal instruction in composition and critical thinking.
FHGE: Communication & Analytical Thinking  Transferable: CSU/UC

ENGL 1BH  HONORS COMPOSITION, CRITICAL READING & THINKING THROUGH LITERATURE  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ENGL 1B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Further development in the technique and practice of analytical, critical, and argumentative writing through critical reading of literature. Course focuses on literary works from major genres to promote appreciation of literature and represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. Formal instruction in composition and critical thinking. The honors section offers a challenging intellectual environment for students intending to transfer to a four-year college or university. Class discussion and assignments focus on literature as a reflection of multiple perspectives, social constructs, and cultural values. Course fosters an understanding and appreciation of various literary genres and includes logic and literary theory. Emphasis on rhetorical strategies and stylistic refinements for effective persuasive writing across the disciplines. Enrichment activities include attendance at plays, author readings, public lectures, and independent or collaborative study on a contemporary author.
FHGE: Communication & Analytical Thinking  Transferable: CSU/UC

ENGL 1C  ARGUMENTATIVE WRITING & CRITICAL THINKING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: One of the following: ENGL 1A, 1AH, or 1S & 1T.
Advisory: Not open to students with credit in ENGL 1CH or 2.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Advanced study and practice of argumentative writing with emphasis on critical analysis and evaluation of texts. Focus is on reading and writing assignments from across the disciplines to further improve and refine critical reading, writing, and thinking skills.
FHGE: Non-GE Applicable  Transferable: CSU/UC
ENGL 1CH  HONORS ARGUMENTATIVE WRITING & CRITICAL THINKING  5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ENGL 1C or 2.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Advanced study and practice of argumentative writing with emphasis on critical analysis and evaluation of texts. Focus is on reading and writing assignments from across the disciplines to refine critical reading, writing, and thinking skills. The honors section is intensive in content, involving both writing and meta-analysis of complex texts. Includes collaborative evaluations of the content, evidence, organizing principles and style of a variety of texts. Course encourages students to examine assumptions, implications and unintended consequences of rhetorical and content choices. Includes focus on primary sources and the interpretations of these documents in contemporaneous writing. Course expands and enhances the student's ability to write with fluency, effectiveness, and intellectual rigor.
FHGE: Non-GE Applicable  Transferable: CSU/UC

ENGL 1S  INTEGRATED COMPOSITION 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Eligibility based on appropriate assessment information.
Corequisite: ENGL 242A or NCEN 442A.
Advisory: If the student intends to use ENGL 1S and 1T combination to satisfy the Foothill General Education requirement for Area II, English, the student must complete ENGL 1S & 1T; also, to receive UC transfer credit for ENGL 1A, the student must complete ENGL 1S & 1T, and UC will transfer 5 units maximum for the combination of these two courses; not open to students with credit in ENGL 42T.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Integrated reading and writing pathway that scaffolds instruction in freshman composition outcomes over two quarters, ENGL 1S and 1T respectively. Over this two quarter stretch, students read college-level texts and write a total of 8,000 words, comprised of a minimum of eight compositions (of which at least five must be out-of-class and at least two must be in-class) to practice the techniques of critical reading, critical thinking, and written communication. Reading focused primarily on works of non-fiction prose, including published and student writing, chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences.
FHGE: English  Transferable: CSU/UC

ENGL 1T  INTEGRATED COMPOSITION & READING 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: ENGL 1S.
Corequisite: ENGL 242B or NCEN 442B.
Advisory: Student should enroll with the same instructor as taken for ENGL 1S; if the student intends to use ENGL 1S & 1T combination to satisfy the Foothill General Education requirement for Area II, English, the student must complete ENGL 1S & 1T; to receive UC transfer credit for ENGL 1A, the student must complete ENGL 1S & 1T, and UC will transfer 5 units maximum for the combination of these two courses; the student may enroll in ENGL 1T or 1A, but not both, for credit; not open to students with credit in ENGL 42T.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Integrated reading and writing pathway that scaffolds instruction in freshman composition outcomes over two quarters, ENGL 1S and 1T respectively. Over this two quarter stretch, students read college-level texts and write a total of 8,000 words, comprised of a minimum of eight compositions (of which at least five must be out-of-class and at least two must be in-class) to practice the techniques of critical reading, critical thinking, and written communication. Reading focused primarily on works of non-fiction prose, including published and student writing, chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences.
FHGE: English  Transferable: CSU/UC

ENGL 5  LGBT LITERATURE 4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to the history and development of LGBT literature as a continuous theme in the development of mainstream literary traditions and, more recently, as a separate and distinct literary genre. Readings selected to represent a variety of historical periods and contrasting societal attitudes toward same-sex relationships and queer gender identities, ranging from ancient Greek and Roman texts to contemporary American poetry, fiction, drama, and non-fiction prose. Emphasis on the emergence of contemporary LGBT literatures and identities in the United States in the twentieth century within the broader context of on-going class, race, gender, religious, political, and aesthetic debates.
FHGE: Humanities  Transferable: CSU/UC

ENGL 7  NATIVE AMERICAN LITERATURE 4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in ENGL 7H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to the history, development, and diversity of Native American literatures, from pre-contact civilizations to present-day tribal cultures. Readings in traditional creation myths, songs, and stories from a variety of tribal cultures; nineteenth and twentieth century autobiographical narratives; and significant works of fiction, poetry, and non-fiction prose by contemporary Native American authors. Emphasis on the specific religious, linguistic, historical, political and cultural context of Native American literary achievements.
FHGE: American Cultures & Communities, Humanities  Transferable: CSU/UC
ENGL 11  INTRODUCTION TO POETRY  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in ENGL 11H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
A survey of children's literature from many periods and cultures, including classics, picture books, folktales, fairy tales, biography, poetry, fantasy, and fiction. Emphasis on the ideas, didactic and sociological, reflecting relationships among cultures in America included in books usually read by children. Special emphasis on books that explore the cross-cultural influences of our shared oral tradition and folklore, as well as the issues arising from a diversity of U.S. cultures.
FHGE: Non-GE Applicable Transferable: CSU/UC

ENGL 11H  HONORS INTRODUCTION TO POETRY  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ENGL 11.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
The honors section offers rigorous preparation in discussion and analysis of poetic forms, techniques, meanings, and history of poetry for students intending to transfer to a four-year college or university. Because poetry, since the mid-nineteenth century, has turned internationally toward a more communicative and social form of literary expression, emphasis relies on modern examples in English and translation to develop the student's ability to read, understand, and evaluate a poem in the context of the modern world. Honors students will have the opportunity to engage in deeper critical analysis and evaluation of poetry and its social, historical, and literary contexts to through the application of higher level, student-generated, student-centered discussion and creative assessments.
FHGE: Non-GE Applicable Transferable: CSU/UC

ENGL 12  AFRICAN AMERICAN LITERATURE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Literature by African Americans beginning in slavery and continuing on into the 20th and 21st centuries. Discovery of many of the current stereotypes in American cultural mythology about African Americans. Study of the complex and varying forms of resistance and creation African Americans have developed. Definition of issues and strategies in writings from the 19th, 20th and 21st centuries, including audience, identity (self), gender, family, culture, politics, spirituality and language. Intended for students wishing to transfer and/or students interested in African American literature.
FHGE: American Cultures & Communities, Humanities Transferable: CSU/UC

ENGL 14  TRAVELING THE WORLD THROUGH CONTEMPORARY LITERATURE  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ENGL 11H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Selected fiction written between 1950 and the present, with emphasis on English, Canadian, and international works in translation. Students are introduced to various thematic and stylistic trends in contemporary fiction; use of current scientific discoveries, historical theories, religious and cultural developments.
FHGE: Humanities Transferable: CSU/UC

ENGL 16  INTRODUCTION TO LITERATURE  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: One of the following: ENGL 1A, 1AH, or 1S & 1T.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to literary study through texts from a wide range of genres, including poetry, drama, fiction, and creative nonfiction. Focus on analytical reading and literary analysis, including effective use of critical theory and secondary source research. Intended for students desiring further development of literary analytical skills and literary appreciation.
FHGE: Humanities Transferable: CSU/UC

ENGL 17  INTRODUCTION TO SHAKESPEARE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to selected tragic, comedic, romance, history plays, and sonnets of Shakespeare, with focus on detailed analysis of texts. Includes critical theory and secondary source research. Intended as an introductory course for English majors and students across the curriculum.
FHGE: Humanities Transferable: CSU/UC
ENGL 18A  VAMPIRE LITERATURE: MULTICULTURAL REPRESENTATIONS OF THE BLOODSUCKER  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey of vampire literature across a variety of cultures. Discussion and analysis (both written and oral) of vampiric literary texts within various theoretical and historical contexts, including the gothic, the psychoanalytic, gender and sexuality, race and the “other,” cultural studies, theories of corporeality. Emphasis on historical and cross-cultural analyses.
FHGE: Humanities
Transferable: CSU/UC

ENGL 18B  GOTHIC & HORROR LITERATURE  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
A survey of gothic and horror literature from its 18th-century beginnings to its 21st-century manifestations, including subgenres, such as haunted spaces, poltergeists, and demonic possession; werewolves and vampires; supernatural, psychological, religious, and “slash” horror. Reading and analysis of multicultural texts contextualized historically and interculturally, with special attention to the aesthetics and psychologies of fear.
FHGE: Non-GE Applicable
Transferable: CSU/UC

ENGL 18C  VAMPIRE LITERATURE: REIMAGINEERING REALITY  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Examination of the ways great world literature throughout world history has been adapted for the modern day movie going audience, from one medium to the other - from text to film or television series. Consideration of: 1. how film makers adapt literature to film, considering the conventions of each medium; 2. how film and literature may evoke similar or different meanings, considering historical, cultural and other contexts for creation and reception; 3. how one medium may inform the other.
FHGE: Humanities
Transferable: CSU/UC

ENGL 22  WOMEN WRITERS  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An examination of the works of multicultural women poets, novelists, dramatists, and essayists and their aesthetic and sociopolitical contribution to English and American literature. Literary discussions of gender as relevant to race, ethnicity, socioeconomic class, sexual orientation, and other constructions of identity and power.
FHGE: Humanities
Transferable: CSU/UC

ENGL 24  UNMASKING COMICS: THE DAWN OF THE GRAPHIC NOVEL  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to the history of graphic communication, emphasizing the burgeoning and dynamic form of contemporary graphic narrative: from memoir writing, to crime fiction, to the superhero, to socio-political writing. Explore how the history and evolution of this distinct literary genre has made it a relevant form of expression for artists and writers across the world and how reading comics challenges traditional modes of reading. Because this form of storytelling is used by artists all over the world to express the human condition and specific socio-cultural insight, the course inspires world-wide cross-cultural awareness.
FHGE: Humanities
Transferable: CSU/UC

ENGL 31  LATINO/A LITERATURE  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Reading and discussion of Latino/a literature and its relationship to social issues and identity politics of Latinos/as. Critical examination of fiction, poetry, essays, and drama by and about the Latino/a communities, including those of Mexican, Puerto Rican, Cuban, Caribbean, and South and Central American descent.
FHGE: Humanities
Transferable: CSU/UC

ENGL 34C  LITERATURE INTO FILM  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Examination of the ways great world literature throughout world history has been adapted for the modern day movie going audience, from one medium to the other - from text to film or television series. Consideration of: 1. how film makers adapt literature to film, considering the conventions of each medium; 2. how film and literature may evoke similar or different meanings, considering historical, cultural and other contexts for creation and recep- tion; 3. how one medium may inform the other.
FHGE: Humanities
Transferable: CSU/UC

ENGL 37  SCIENCE FICTION LITERATURE: REIMAGINEERING REALITY  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to the evolution of science fiction, emphasizing analysis of literature and artwork in or after the age of reason, exploring how new scientific insights and technologies hypothetically shape reality through: poems, short stories, novels, plays, film, comics, paintings, or other artistic expressions. Examine how the history and evolution of this distinct literary field has inspired many different modes of art and genres of literature. Because this form of storytelling is used by artists all over the world to express the human condition and specific socio-cultural insight, the course inspires world-wide cross-cultural awareness.
FHGE: Humanities
Transferable: CSU/UC
ENGL 38           LITERATURE OF PROTEST          4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An exploration of protest found in literature, music, and art in the United States. Texts, such as essays, short stories, poetry, drama, music, paintings, photography and film, which helped to inform, sustain, and empower during difficult periods of human history, will be examined. Evaluation of how various artists construe the relationship between aesthetics and politics (that is, the social/political purposes of their art) is the central question we will seek to answer. By examining the ways in which each work confronts the status quo of an inhumane society, we will trace a tradition of protest and discover the means and methods of protest across an array of sources.
FHGE: Humanities Transferable: CSU/UC

ENGL 40           ASIAN AMERICAN LITERATURE          4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; not open to students with credit in ENGL 40H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to Asian American literature. Readings in 20th century works, with an emphasis on three relevant themes: problems of identity as they relate to class, gender, mixed heritages, and sexuality; politics and the history of Asian American activism and resistance; and diversity of cultures within the Asian American community.
FHGE: American Cultures & Communities, Humanities Transferable: CSU/UC

ENGL 41           LITERATURE OF MULTICULTURAL AMERICA          4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An exploration of American identity, focusing on ethnic, cultural, and national affiliations. Analysis of literary works by (including among others) Native American, European American, African American, Latino/a, Arab American, Asian American, and mixed race writers. Readings selected represent a variety of historical periods and literary genres. Emphasis on issues of identity politics, immigration, internally and externally imposed borders, cultural and linguistic power, assimilation, acculturation, and cultural pluralism as expressed through diverse voices.
FHGE: Humanities Transferable: CSU/UC

ENGL 43A           SURVEY OF BRITISH LITERATURE I: BEOWULF TO THE LATE 18TH CENTURY          5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Eligibility for college-level composition (ENGL 1A or 1AH), as determined by college assessment or other appropriate method.
Advisory: Successful completion of college-level composition (ENGL 1A, 1AH or 1S & 1T) or equivalent; not open to students with credit in ENGL 43AH, 46A or 46B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
A survey of canonical literature spanning the earliest Old English texts, Middle English period, Early Modern period, ending with Neoclassicism. Texts discussed and analyzed within historical, sociocultural, philosophical, and aesthetic contexts.
FHGE: Humanities Transferable: CSU/UC

ENGL 43AH           HONORS SURVEY OF BRITISH LITERATURE I: BEOWULF TO THE LATE 18TH CENTURY          5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: Eligibility for college-level composition (ENGL 1A, 1AH or 1S & 1T) or equivalent; not open to students with credit in ENGL 43A, 46A or 46B.
Advisory: Successful completion of college-level composition (ENGL 1A, 1AH or 1S & 1T) or equivalent; not open to students with credit in ENGL 43AH, 46A or 46B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
A survey of canonical literature spanning the earliest Old English texts, Middle English period, Early Modern period, ending with Neoclassicism. Texts discussed and analyzed within historical, sociocultural, philosophical, and aesthetic contexts. Specific to this honors course: A higher level of sophisticated scholarship through extensive research and literature review, critical essays, and opportunities for scholarly presentation, student-generated discussions, and self-directed projects. Rigorous application and analysis of theoretical paradigms as applied across these contexts in analysis of canonical literary texts.
FHGE: Humanities Transferable: CSU/UC

ENGL 43B           SURVEY OF BRITISH LITERATURE II: THE ROMANTIC PERIOD TO THE PRESENT          5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Eligibility for college-level composition (ENGL 1A or 1AH), as determined by college assessment or other appropriate method.
Advisory: Successful completion of college-level composition (ENGL 1A, 1AH or 1S & 1T) or equivalent; not open to students with credit in ENGL 43BH, 46B or 46C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
A survey of canonical literature beginning with the 1798 publication of Lyrical Ballads, through the Romantic Period, Victorian Period, twentieth-century Modernism and Postmodernism, to the present. Texts discussed and analyzed within historical, sociocultural, philosophical, and aesthetic contexts.
FHGE: Humanities Transferable: CSU/UC
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Degree &amp; Credit Status</th>
<th>Prerequisites</th>
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<th>Grade Type</th>
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<td>ENGL 45A</td>
<td>SURVEY OF AMERICAN LITERATURE I: BEGINNINGS</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>Eligibility for college-level composition (ENGL 1A or 1AH), as determined by college assessment or other appropriate method.</td>
<td></td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable.</td>
<td>The first in a two-course sequence that surveys the history of American literature from its beginnings to the present. Introduces students to works of American literature from its beginnings through the Civil War, focusing on the evolution of literary traditions, genres, cultural voices, and ecological landscapes within historical, philosophical, social, political, and aesthetic contexts. Specific to this honors course: A higher level of sophisticated scholarship through extensive research and literature review, critical essays, and opportunities for scholarly presentation, student-generated discussions, and self-directed projects. Rigorous application and analysis of theoretical paradigms as applied across these contexts in analysis of canonical works. FHGE: American Cultures &amp; Communities, Humanities Transferable: CSU/UC</td>
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<tr>
<td>ENGL 45B</td>
<td>SURVEY OF AMERICAN LITERATURE II: 1865 TO THE PRESENT</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>Eligibility for college-level composition (ENGL 1A or 1AH), as determined by college assessment or other appropriate method.</td>
<td></td>
<td>Letter Grade or Pass/No Pass</td>
<td>Not Repeatable.</td>
<td>The first in a two-course sequence that surveys the history of American literature from its beginnings to the present. Introduces students to works of American literature from its beginnings through the Civil War, focusing on the evolution of literary traditions, genres, cultural voices, and ecological landscapes within historical, philosophical, social, political, and aesthetic contexts. Specific to this honors course: A higher level of sophisticated scholarship through extensive research and literature review, critical essays, and opportunities for scholarly presentation, student-generated discussions, and self-directed projects. Rigorous application and analysis of theoretical paradigms as applied across these contexts in analysis of canonical literary texts. FHGE: American Cultures &amp; Communities, Humanities Transferable: CSU/UC</td>
</tr>
</tbody>
</table>
### ENGL 45B
**HONORS SURVEY OF AMERICAN LITERATURE II: 1865 TO THE PRESENT**

5 Units

Degree & Credit Status: Degree-applicable credit course  
Prerequisites: Eligibility for college-level composition (ENGL 1A or 1AH), as determined by college assessment or other appropriate method; Honors Institute participant.  
Advisory: Successful completion of college-level composition (ENGL 1A, 1AH or 1S & 1T) or equivalent; not open to students with credit in ENGL 45B, 48B or 48C.  
Grade Type: Letter Grade Only  
Not Repeatable.  
5 hours lecture. (60 hours total per quarter.)

Introduces students to multicultural American Literature from the end of the Civil War in 1865 to the present, focusing on the evolution of literary traditions, genres, cultural voices, and ecological landscapes within historical, philosophical, social, political, and aesthetic contexts. Special emphasis on the role of diverse writers in redefining the nature of American literature from the late nineteenth century through the 21st century, and thereby reshaping American national identity as the United States becomes a global superpower. Specific to this honors course: A higher level of sophisticated scholarship through extensive research and literature review, critical essays, and opportunities for scholarly presentation, student-generated discussions, and self-directed projects. Rigorous application and analysis of theoretical paradigms as applied across these contexts in analysis of canonical literary texts.  
FHGE: Humanities  
Transferable: CSU/UC

### ENGL 47B
**WORLD LITERATURE II**

5 Units

Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Eligibility for college-level composition (ENGL 1A or 1AH), as determined by college assessment or other appropriate method.  
Advisory: Successful completion of college-level composition (ENGL 1A, 1AH or 1S & 1T) or equivalent; not open to students with credit in ENGL 47B.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
5 hours lecture. (60 hours total per quarter.)

A comparative study of selected works, in translation and in English, of literature from around the world, including Europe, the Middle East, Africa, Asia, and other areas, from the seventeenth century to the present. A cross-cultural examination of global literatures within broader historical, cultural, political, and social frameworks, including the contexts of class, race and ethnicity, gender, religion, and aesthetics. The honors section provides a higher level of sophisticated scholarship through extensive research and literature review, critical essays, and opportunities for scholarly presentation, student-generated discussions, and self-directed projects. Rigorous application and analysis of theoretical paradigms as applied across these contexts in analysis of canonical literary texts.  
FHGE: Humanities  
Transferable: CSU/UC

### ENGL 47A
**WORLD LITERATURE I**

5 Units

Degree & Credit Status: Degree-applicable credit course  
Prerequisites: Eligibility for college-level composition (ENGL 1A or 1AH), as determined by college assessment or other appropriate method.  
Advisory: Successful completion of college-level composition (ENGL 1A, 1AH or 1S & 1T) or equivalent; not open to students with credit in ENGL 47A.  
Grade Type: Letter Grade or Pass/No Pass  
5 hours lecture. (60 hours total per quarter.)

A comparative study of selected works, in translation and in English, of literature from around the world, including the Middle East, Africa, Asia, and other areas, from antiquity through the seventeenth century. A cross-cultural examination of global literatures within broader historical, cultural, political, and social frameworks, including the contexts of class, race and ethnicity, gender, religion, and aesthetics.  
FHGE: Humanities  
Transferable: CSU/UC

### ENGL 47AH
**HONORS WORLD LITERATURE I**

5 Units

Degree & Credit Status: Degree-applicable credit course  
Prerequisites: Eligibility for college-level composition (ENGL 1A or 1AH), as determined by college assessment or other appropriate method; Honors Institute participant.  
Advisory: Successful completion of college-level composition (ENGL 1A, 1AH or 1S & 1T) or equivalent; not open to students with credit in ENGL 47A.  
Grade Type: Letter Grade Only  
5 hours lecture. (60 hours total per quarter.)

A comparative study of selected works, in translation and in English, of literature from around the world, including the Middle East, Africa, Asia, and other areas, from antiquity through the seventeenth century. A cross-cultural examination of global literatures within broader historical, cultural, political, and social frameworks, including the contexts of class, race and ethnicity, gender, religion, and aesthetics. The honors section provides a higher level of sophisticated scholarship through extensive research and literature review, critical essays, and opportunities for scholarly presentation, student-generated discussions, and self-directed projects. Rigorous application and analysis of theoretical paradigms as applied across these contexts in analysis of canonical works.  
FHGE: Humanities  
Transferable: CSU/UC

### ENGL 49
**CALIFORNIA LITERATURE: GEOGRAPHIES & GOLDEN STATE CULTURES, HISTORIES**

4 Units

Degree & Credit Status: Degree-applicable credit course  
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture. (48 hours total per quarter.)

Introduction to literature written by and about Californians, from pre-contact California Indian creation myths to contemporary poetry, fiction, drama, essays, and autobiographical narratives. Emphasis on important literary contributions by authors from a range of ethnic, socio-economic, and regional communities representing the cultural complexity of California. Emphasis on the influence of ecology, geography, political and social developments, ethnicity, gender, and class on the formation of distinctive yet interconnected California cultures, as represented in literary works.  
FHGE: Humanities  
Transferable: CSU/UC
ENGL 50C  TECHNICAL WRITING  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in ENGL 3.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
An introductory course in technical and workplace communication. Focus on the strategic implementation of technical writing process, including assessment of context, purpose, and audience; evaluation and production of effective verbal and visual communication, including sentence clarity, document design, and use of visuals; and production of written texts for business and industry, including correspondence, technical definitions and descriptions, instructions, proposals and applications, reports, and websites.
FHGE: Communication & Analytical Thinking
Transferrable: CSU

ENGL 70R  INDEPENDENT STUDY IN ENGLISH  1 Unit
ENGL 71R  2 Units
ENGL 72R  3 Units
ENGL 73R  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in English beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable
Transferable: CSU

ENGL 80  INTRODUCTION TO TRAVEL WRITING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An introductory course in travel writing. Focus on recognizing, evaluating, and producing the characteristics of travel writing in a range of travel writing genres. Practice in skills of observation, research, and reflection to understand aspects of place and draw meaning from travel experiences. Recognition and evaluation of publishing options.
FHGE: Non-GE Applicable
Transferable: CSU

ENGL 110  INTRODUCTION TO COLLEGE WRITING  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Eligibility based on assessment or successful completion of ENGL 209.
Advisory: Not open to students with credit in ENGL 108.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Intended for students requiring explicit instruction and practice in writing expository essays, emphasizing clear sentence structure and logical development. Assignments include summary and synthesis of texts, critical analysis, as well as personal writing. Instruction includes rules of and practice on punctuation skills. Lecture, discussion, collaborative, and individualized instruction.
FHGE: Non-GE Applicable
Transferable: None

ENGL 209  INTRODUCTION TO COLLEGE READING  5 Units
Degree & Credit Status: Non-degree-applicable basic skills-2 course
Advisory: Not open to students with credit in ENGL 100 or 108.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Techniques of critical analysis for reading-college level prose, focusing primarily on expository/argumentative essays and textbook materials. Students learn to comprehend text holistically, identifying and expressing critical elements of comprehension. Practice and testing to be done on authentic text of one or more page length and with written responses. Lecture, discussion, group work, and individualized instruction.
FHGE: Non-GE Applicable
Transferable: None

ENGL 242A  CRITICAL THINKING: STUDENT-MANAGED PORTFOLIO DEVELOPMENT  1 Unit
Degree & Credit Status: Non-degree-applicable basic skills course
Corequisite: ENGL 1S.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
A survey of basic theory, design, and implementation strategies for the student-managed formative portfolio. Students write a total of at least 750 words, with emphasis on the reflective and evaluative processes necessary for portfolio development. Practice in managing and maintaining the information and artifacts of a portfolio as a comprehensive analysis of the student learning experience. Use of portfolio development to increase meta-cognitive awareness of the integration between reading and writing processes; of the student’s location within discourse communities, including the campus community; and of the behaviors necessary for college success.
FHGE: Non-GE Applicable
Transferable: None

ENGL 242B  CRITICAL THINKING: PORTFOLIO MANAGEMENT & PUBLICATION  1 Unit
Degree & Credit Status: Non-degree-applicable basic skills course
Prerequisite: ENGL 242A.
Corequisite: ENGL 1T.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Application of basic theory, design, and implementation strategies for the student-managed summative portfolio. Students write a total of at least 750 words, with emphasis on the reflective and evaluative processes necessary for portfolio development. Management and publication of the artifacts of a summative portfolio as a comprehensive demonstration of the student learning experience across the curriculum. Use of portfolio publication to demonstrate meta-cognitive awareness of the integration between reading and writing processes; of the student’s location within discourse communities, including the campus community; and of the behaviors necessary for college success. Students will demonstrate ability to transfer knowledge and learning across disciplines.
FHGE: Non-GE Applicable
Transferable: None

ENGL 246A  COMPOSITION & READING SUPPLEMENTAL INSTRUCTION  2 Units
Degree & Credit Status: Non-degree-applicable basic skills course
Corequisite: ENGL 1A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Incorporates and contextualizes reading and writing strategies aligned with ENGL 1A coursework. Students receive additional support for success in ENGL 1A by practicing and reinforcing critical reading, thinking, and writing skills to engage further in the processes of expository and argumentative writing.
FHGE: Non-GE Applicable
Transferable: None
ESLL 125   COMPOSITION & READING   5 Units
Degree & Credit Status: Degree-credit applicable course
Prerequisite: Appropriate placement test score or a grade of “C” or better in ESLL 236 and 237.
Advisory: Concurrent enrollment in ESLL 249; if not taken concurrently, ESLL 249 should be taken prior to ESLL 125; completion of or concurrent enrollment in ESLL 235 strongly recommended; designed for students whose native language is not English; not open to students with credit in ESL 25, 257, or ESLL 25.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
A high-intermediate English course focusing on verb tenses, gerunds, infinitives, modal verbs in present, past, real present and future conditionals.
FHGE: Non-GE Applicable  Transferable: None

ESLL 201A   COMPOSITION & READING   2 Units
INSTRUCTIONAL SUPPORT FOR ENGLISH LANGUAGE LEARNERS
Degree & Credit Status: Non-degree-credit applicable basic skills course
Corequisite: ENGL 1A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Designed to assist second language learners in developing the reading and writing skills and strategies required for success in ENGL 1A. Reinforcement of reading skills and strategies as they pertain to comprehension of content and critical analysis of rhetorical elements. Development of critical thinking skills and strategies related to the process of expository and argumentative writing. Application of essay revision and editing skills to include appropriate content, coherence, sentence efficiency and variety, and grammatical accuracy.
FHGE: Non-GE Applicable  Transferable: None

ESLL 226   HIGH-INTERMEDIATE GRAMMAR   5 Units
Degree & Credit Status: Non-degree-credit applicable basic skills-3 course
Advisory: Concurrent enrollment in ESLL 227 recommended; designed for students whose native language is not English; not open to students with credit in ESL 156.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
A high-intermediate English course focusing on verb tenses, gerunds, infinitives, modal verbs in present, past, real present and future conditionals.
FHGE: Non-GE Applicable  Transferable: None

ESLL 227   HIGH-INTERMEDIATE READING   5 Units
SKILLS
Degree & Credit Status: Non-degree-credit applicable basic skills-3 course
Advisory: Appropriate placement test score and concurrent enrollment in ESLL 226 recommended; intended for students whose native language is not English; not open to students with credit in ESL 157.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
An upper intermediate-level reading course focusing on developing comprehension skills and strategies for processing pre-college-level readings. In addition to developing vocabulary, students will demonstrate understanding of main ideas of texts by composing single- and multi-sentence writings in response to questions about the given texts.
FHGE: Non-GE Applicable  Transferable: None

ESLL 228   DEVELOPING LANGUAGE   10 Units
SKILLS FOR ESL STUDENTS
Degree & Credit Status: Non-degree-credit applicable basic skills-4 course
Prerequisite: TOEFL score of 475 to 499 or appropriate placement test score.
Advisory: Designed for students whose native language is not English; not open to students with credit in ESL 158.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
10 hours lecture. (120 hours total per quarter.)
An adaptive level course for intermediate-to-advanced students who use English as a second language. Designed to improve grammar, writing, reading, and speaking skills in order to handle the challenges of using English in college academic programs.
FHGE: Non-GE Applicable  Transferable: None

ESLL 235   LISTENING/SPEAKING FOR ACADEMIC PURPOSES   5 Units
Degree & Credit Status: Non-degree-credit applicable basic skills-2 course
Prerequisite: Appropriate placement test score.
Advisory: Successful completion of ESLL 226 and 227 strongly recommended; intended for students whose native language is not English; not open to students with credit in ESL 165.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
A listening/speaking course focusing on preparing students for authentic lectures and participating in classroom discussions and presentations.
FHGE: Non-GE Applicable  Transferable: None

ESLL 236   ADVANCED GRAMMAR   5 Units
Degree & Credit Status: Non-degree-credit applicable basic skills-2 course
Prerequisite: Appropriate placement test score or ESL 226 and 227.
Advisory: Concurrent enrollment in ESLL 237 recommended; intended for students whose native language is not English; not open to students with credit in ESL 166.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Continuation of ESLL 226. An advanced English grammar course focusing on clause and phrase structures.
FHGE: Non-GE Applicable  Transferable: None
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<th>Course Title</th>
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<th>Prerequisite</th>
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<td>HORT 10</td>
<td>ENVIRONMENTAL HORTICULTURE &amp; THE URBAN LANDSCAPE</td>
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<td>ORIENTATION TO ENVIRONMENTAL HORTICULTURE</td>
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<td>HORT 21</td>
<td>PLANT MATERIALS I</td>
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<td>HORT 22</td>
<td>PLANT MATERIALS II</td>
<td>3</td>
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<td>Grade Type: Letter Grade Only</td>
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<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU/UC</td>
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ESLL 237     | BASIC COMPOSITION SKILLS                        | 5     | Non-degree-applicable basic skills-2 course | Prerequisite: Appropriate placement test score or a grade of "C" or better in ESLL 226 and 227. | Advisory: Concurrent enrollment in ESLL 236; designed for students whose native language is not English; not open to students with credit in ESL 167. | Grade Type: Letter Grade or Pass/No Pass | Not Repeatable | FHGE: Non-GE Applicable | Transferable: None |

ESLL 246     | APPLIED GRAMMAR & EDITING SKILLS                | 3     | Non-degree-applicable basic skills course | Prerequisite: ESLL 236 or an appropriate score on the ESL placement test. | Corequisite: Concurrent enrollment in ESLL 125, ENGL 1A, 1AH, 1B, 1BH, or 110. | Advisory: Not open to students with credit in ESL 176. | Grade Type: Letter Grade or Pass/No Pass | Not Repeatable | FHGE: Non-GE Applicable | Transferable: None |

ESLL 248     | ADVANCED GRAMMAR REVIEW                         | 3     | Non-degree-applicable basic skills course | Prerequisite: ESLL 236 or an appropriate score on the ESL placement test. | Advisory: Not open to students with credit in ESL 186. | Grade Type: Letter Grade or Pass/No Pass | Not Repeatable | FHGE: Non-GE Applicable | Transferable: None |

ESLL 249     | ADVANCED READING                                | 5     | Non-degree-applicable credit course | Prerequisites: ESLL 236 and 237 or appropriate placement test score. | Advisory: Concurrent enrollment in ESLL 125; if not taken concurrently, ESLL 249 should be taken prior to ESLL 125; designed for students whose native language is not English. | Grade Type: Letter Grade or Pass/No Pass | Not Repeatable | FHGE: Non-GE Applicable | Transferable: None |
HORT 23  PLANT MATERIALS: CALIFORNIA NATIVE PLANTS  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 15 strongly recommended; not open to students with credit in HORT 51D.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Identification, taxonomy, habits of growth, cultural and environmental requirements of plants native to California landscapes. Emphasis on a wide variety of native species including trees, shrubs, ground covers, and herbaceous plants. Plants are observed via media and physical observation.
FHGE: Non-GE Applicable Transferable: CSU/UC

HORT 24  PLANT MATERIALS: GROUND COVERS & VINES  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 15 strongly recommended; not open to students with credit in HORT 51E.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Identification, taxonomy, habits of growth, cultural and environmental requirements of woody and herbaceous ground covers and vines grown in California. Emphasis on the use and maintenance of evergreen and deciduous plants used as ground covers, vines, or espaliers in ornamental landscapes. Plants are observed in class, on campus, and at off-site locations.
FHGE: Non-GE Applicable Transferable: CSU/UC

HORT 25  PLANT MATERIALS: BAMBOOS & PALMS  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 15 strongly recommended; not open to students with credit in HORT 51F.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Identification, taxonomy, habits of growth, cultural and environmental requirements of bamboos and palms grown in California. Emphasis on the use and maintenance of these two categories of monocots, each with markedly different forms. Plants are observed via media and physical observation.
FHGE: Non-GE Applicable Transferable: CSU/UC

HORT 26  PLANT MATERIALS: PERENNIALS & ANNUALS  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 15 strongly recommended; not open to students with credit in HORT 51H.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Identification, taxonomy, habits of growth, cultural and environmental requirements of herbaceous plants grown in California. Emphasis on the use and maintenance of significant perennial and annual species with significant features such as flower and foliage displays. Plants are observed via media and physical observation.
FHGE: Non-GE Applicable Transferable: CSU/UC

HORT 30  HORTICULTURAL PRACTICES: SOILS  3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 15 recommended; not open to students with credit in HORT 52A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Fundamentals of soil science, including examination of soil formation, physical and chemical properties of soil, relationships between soil, water and plants, and biological factors of soil. Examination of soil samples and interpretation of soil reports and surveys. Basics of plant fertility requirements and soil related topics, such as composting, environmental issues, and soils in construction.
FHGE: Non-GE Applicable Transferable: CSU/UC

HORT 31  HORTICULTURAL PRACTICES: PLANT PROPAGATION  3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 15 strongly recommended.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Principles of plant propagation with an emphasis on techniques that are used in the nursery and greenhouse industries. Seeds, cuttings, grafting techniques, and the separation and division of specialized structures.
FHGE: Non-GE Applicable Transferable: CSU/UC

HORT 40  LANDSCAPE DESIGN: GRAPHIC COMMUNICATION  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in HORT 60A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
An introductory survey of the basic principles of design communication, landscape graphics, and design process. Graphic mediums and tools, graphic vocabulary, graphic skills, reprographic techniques, plan reading, and presentation skill development. The application of lines, symbols, and lettering to create typical landscape drawings.
FHGE: Non-GE Applicable Transferable: CSU/UC

HORT 45  VECTORWORKS FOR LANDSCAPE DESIGNERS  3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: HORT 40 and a basic understanding of the operation of computers is recommended; not open to students with credit in HORT 60E.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Introduction to Vectorworks 2D software for computer aided design and drafting (CADD), specifically for landscape related applications. Focus on development of basic command skills, including 2-D drawing, editing, creation of layers, plant placement tool, and exporting to other programs and as a PDF for printing. 3-D CADD drawing is covered in a different course.
Vectorworks software is utilized in this course.
FHGE: Non-GE Applicable Transferable: CSU/UC
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HORT 54J  HORTICULTURAL PRACTICES: INSECT IDENTIFICATION & DISORDERS
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Identification, morphology, physiology and management of common agricultural and horticultural insects. Review of the disorders caused by plant insects. Review of the impacts of common insects on the plant production and landscape industries and their identification throughout the life cycle of the insect.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 54K  HORTICULTURAL PRACTICES: WEED IDENTIFICATION & ECOLOGY
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Identification, morphology, physiology and management of common agricultural and horticultural weedy plants. Review of the impacts of common weeds on the plant production and landscape industries and their identification throughout the life cycle of the plant. Review of the role of weeds in the landscape.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 54L  HORTICULTURAL PRACTICES: DISEASE IDENTIFICATION & PATHOLOGY
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Identification, morphology, physiology and management of common agricultural and horticultural diseases. Study of the common diseases found in plants. Review of the impacts of common diseases on the plant production and landscape industries and their identification throughout the life cycle of the disease.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 55A  GREEN INDUSTRY MANAGEMENT: BUSINESS PRACTICES
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Introductory survey of green industry management and business practices. Geared to people in such fields as landscape construction, nursery management, and landscape design, this course focuses on helping individuals successfully organize, manage, and/or market their agency or small business. The class utilizes both a theoretical and hands-on approach to the application of common business principles.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 56B  LANDSCAPE DESIGN: THEORY
Degree & Credit Status: Degree-applicable credit course
Advisory: HORT 40 and/or drafting skills strongly recommended.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Principles of landscape design theory. Intermediate studies in and applications of graphic communication, creative problem solving, design theory, and presentation skills. Residential site analysis and landscape design case studies.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 56C  LANDSCAPE DESIGN: IRRIGATION
Degree & Credit Status: Degree-applicable credit course
Advisory: HORT 54C strongly recommended.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2.5 hours lecture, 1.5 hours laboratory. (48 hours total per quarter.)
FHGE: Non-GE Applicable  Transferable: CSU

HORT 56D  LANDSCAPE DESIGN: PLANTING
Degree & Credit Status: Degree-applicable credit course
Advisory: HORT 40 and 60B or equivalent; HORT 21, 22 and 26 strongly recommended.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
The use of ornamental and native plant materials to express basic design principles in the landscape. Planting design theory as it applies to the aesthetic, cultural, ecological, and functional use of plant materials in the landscape. Graphics used for presenting planting designs. Special focus on the use of plants in garden designs.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 56F  LANDSCAPE DESIGN: PROCESS
Degree & Credit Status: Degree-applicable credit course
Advisory: HORT 40 and 60B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Principles of landscape design process. Application of residential site analysis, program development, and landscape design theory to one or more residential scale projects. Project planning and budgeting. Landscape designer, client, and green industry professional interactions.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 56G  LANDSCAPE DESIGN: INTERMEDIATE COMPUTER APPLICATIONS
Degree & Credit Status: Degree-applicable credit course
Advisory: HORT 40 and 45 strongly recommended; CADD experience or training and knowledge of computer operation strongly recommended.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Advanced use of Vectorworks as a landscape design and drafting tool. Topics covered include structuring of drawings using layers, improving drawing skills using tool commands and shortcuts, importing and rescaling PDFs for basemaps, importing images, creating viewport and sheet layers. Also covered will be customizing tool bars, expanding plant database, and importing/exporting/printing drawings. Introduction to three-dimensional drawing using Vectorworks and related programs.
FHGE: Non-GE Applicable  Transferable: CSU
SKETCHUP FOR LANDSCAPE DESIGNERS 3 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: HORT 40.
Grade Type: Letter Grade Only
Not Repeatable.
2.5 hours lecture, 1.5 hours laboratory. (48 hours total per quarter.)
An overview and application of Google Sketchup to three-dimensional rendering for the landscape designer. Emphasizing the basics of drawing setup, creation and editing, this course will show the designers how to turn their 2-D drawings into a presentation drawing that illustrates their ideas in photo-like rendering techniques. Importing and use of the three-dimensional tools available in Sketchup Make and Sketchup Pro will be included. Intended for students seeking a landscape design career or professionals upgrading their skills.
FHGE: Non-GE Applicable Transferable: CSU

HORTICULTURE WINTER 2 Units

HORT 60J  VECTORWORKS 3-D 3 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: HORT 45.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Overview of three-dimensional drawing with Vectorworks related to landscape applications. Topics will include importing and constructing topography, drawing 3-D structures, inserting 3-D plants and amenities. Rendering, editing and presentation of 3-D landscape drawings.
FHGE: Non-GE Applicable Transferable: CSU

HORTICULTURE FALL SKILLS 2 Units

HORT 80A  ENVIRONMENTAL HORTICULTURE FALL SKILLS 2 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in HORT 80.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
Course provides skills development opportunities in environmental horticulture for the Fall season. This is an extension of classroom instruction, covering topics such as mulching, irrigation winterization, late season landscape construction practices, and protection for frost sensitive plantings. This course offers students learning opportunities through a combination of on-site practical field experience, independent research, student internship, community service and industry related educational opportunities in the green industry.
FHGE: Non-GE Applicable Transferable: CSU

HORTICULTURE WINTER SKILLS 2 Units

HORT 80B  ENVIRONMENTAL HORTICULTURE WINTER SKILLS 2 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
Course provides skills development and internship opportunities in environmental horticulture for the Winter season. This is an extension of classroom instruction, covering topics such as woody tree and shrub pruning, drainage practices, winter plant protection, and rainwater harvesting. This course offers students learning opportunities through a combination of on-site practical field experience, independent research, student internship, community service and industry related educational opportunities in the green industry.
FHGE: Non-GE Applicable Transferable: CSU

HORTICULTURE SPRING 2 Units

HORT 80C  ENVIRONMENTAL HORTICULTURE SPRING SKILLS 2 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
Course provides skills development opportunities in environmental horticulture for the Spring season. This is an extension of classroom instruction, covering topics such as the initiation of landscape construction projects, pests and diseases, vegetable crops, composting, and water management. This course offers students learning opportunities through a combination of on-site practical field experience, independent research, student internship, community service and industry related educational opportunities in the green industry.
FHGE: Non-GE Applicable Transferable: CSU

LANDSCAPE CERTIFICATION: COMMON CORE 2 Units

HORT 80E  LANDSCAPE CERTIFICATION: COMMON CORE 2 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
General subjects related to certification with the California Landscape Contractors Association. Includes horticultural math, plant identification, workplace safety, plant reading, plant sensitivity, grading and sodding, irrigation identification, controller programming, lateral repair and head adjustments and truck and trailer operation. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable Transferable: CSU

LANDSCAPE CERTIFICATION: SOFTSCAPE INSTALLATION 1 Unit

HORT 80F  LANDSCAPE CERTIFICATION: SOFTSCAPE INSTALLATION 1 Unit

Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent registration in HORT 80E recommended.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
General subjects related to certification with the California Landscape Contractors Association. Topics to include plan reading, plant layout, horticultural principles, irrigation components, controller programming, lateral repair and head adjustment, plant installation, post-planting care, sod installation, plant identification and rototiller operation. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable Transferable: CSU
HORT 80G  LANDSCAPE CERTIFICATION: TURF MANAGEMENT  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 80E strongly advised.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
General subjects related to certification with the California Landscape Contractors Association. Topics include plan reading, turfgrass math calculations, instrument operation, grading and drainage, equipment operation, and paver installation. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 80I  LANDSCAPE CERTIFICATION: IRRIGATION INSTALLATION  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 80E strongly advised.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
General subjects related to certification with the California Landscape Contractors Association. Topics include irrigation plan reading, advanced irrigation components, basic horticultural principles, lateral repair and head adjustment, advanced program controller, lateral installation, mainline installation, valve repair, valve wiring and pipe installation equipment. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 80J  LANDSCAPE CERTIFICATION: HARDSCAPE INSTALLATION  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 80E strongly advised.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
General subjects related to certification with the California Landscape Contractors Association. Topics include plan reading, hardscape math calculations, instrument operation, grading and drainage, equipment operation, and paver installation. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 80K  LANDSCAPE CERTIFICATION: ORNAMENTAL MAINTENANCE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in HORT 80E strongly advised.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
General subjects related to certification with the California Landscape Contractors Association. Topics include ornamental horticulture maintenance principles, irrigation principles, irrigation components, maintenance calculations, plant identification review, controller programming, lateral repair and head adjustment, tree planting and staking, pruning, safe operation of landscape maintenance equipment. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 90A  CONTAINER PLANTINGS IN THE LANDSCAPE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Utilization of container plantings in both interior environments and exterior landscapes. Design theory, selection of containers, plant selection, and planting methods. Soil preparation and irrigation techniques.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 90C  GARDEN PONDS & WATER FEATURES  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Introduction to the aesthetics of garden water features and the techniques used in their design, construction, and maintenance. Use of fish, plants, and other natural systems in garden ponds and pools.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 90D  HERBS: IDENTIFICATION, USE & FOLKLORE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
An introductory look at the use and folklore of herbs grown for specific cultural purposes. Herbs noted for their culinary, aromatic, or medicinal properties.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 90E  HORTICULTURAL & LANDSCAPE PHOTOGRAPHY  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Introduction to basic photographic equipment and techniques utilized in photographing landscapes and horticulturally related elements. Emphasis on assisting green industry professionals in photographing ornamental plants, landscape construction or business-related projects, and landscape designs.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 90F  LANDSCAPE DESIGN: BASIC PRINCIPLES  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
12 hours lecture total per quarter.
An overview of the basic principles of landscape design. Presents basic graphic communication concepts. Also explores the concept of master planning residential landscapes, and designing with plant material and related landscape elements.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 90G  LANDSCAPE DESIGN FORUM  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Design topics for residential landscapes. Covers current concepts and trends in the landscape design industry through topical presentations, guest speakers, and discussion groups. Explores methods for evaluating successful landscape designs and their implementation.
FHGE: Non-GE Applicable  Transferable: CSU

HORT 90H  LANDSCAPE PHOTOGRAPHY  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Photography principles and techniques of lighting, exposure, composition, and interpretation. Special focus on assisting green industry professionals in photographing landscapes and horticulturally related elements. Emphasis on assisting green industry professionals in photographing ornamental plants, landscape construction or business-related projects, and landscape designs.
FHGE: Non-GE Applicable  Transferable: CSU
HORT 90H LANDSCAPE LIGHTING 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Basic theory, design, and installation techniques for lighting residential landscapes. The effective use of conventional and low-voltage lighting for improving landscape aesthetics and the functional use of outdoor spaces.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90I LANDSCAPE SUSTAINABILITY 1 Unit
PRACTICES
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Principles and practices utilized in the design, implementation, and maintenance of sustainable landscapes and gardens. Reviews ecological principles of sustainability for efficient energy use in the environment.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90J LANDSCAPING WITH EDIBLES 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
The use of edible plants in residential landscapes. Practice and feasibility of integrating edible plants into landscape designs. Identification of ornamental plant materials which produce edible fruit, foliage, flowers or other edible parts.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90K PLANT PROPAGATION: BASIC 1 Unit
SKILLS
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Introduction to propagation of plants by sexual and asexual methods. Seeding, cutting, grafting, division of specialized structures, and micro-propagation discussed and demonstrated. Discussions include growing media, fertilizers, hormones, and other plant supplements.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90L PLANT PROPAGATION: ADVANCED 1 Unit
SKILLS
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Advanced concepts of propagating plants by sexual and asexual methods. Seeding, cutting, grafting, division of specialized structures, and micro-propagation discussed and demonstrated. Discussions include growing media, fertilizers, hormones, and other plant supplements.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90M PLANT NUTRITION & FERTILIZATION 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
12 hours lecture total per quarter.
Introduction to plant nutrient requirements and methods for providing proper plant nutrition. Topics include review of basic nutrient requirements, forms of nutrients used by plants, nutrient deficiency identification, methods for delivering nutrients to plants, manufacture of fertilizers, fertilizer formulations, fertilizer delivery methods, and organic nutrient sources.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90N PLANT MATERIALS: FALL COLOR 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Identification, taxonomy, habits of growth, cultural and environmental requirements of plants which exhibit noticeable fall color. Color characteristics include stems, foliage, flowers, and fruit. Plants are observed in class, on campus, and at off-site locations.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90P PRUNING: BASIC SKILLS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Methods of pruning deciduous and evergreen plant materials. Emphasis on pruning common landscape plants, fruit trees, and roses. Selection of suitable pruning tools, techniques for pruning safely, and use and maintenance of tools and equipment.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90Q RESIDENTIAL IRRIGATION SYSTEMS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Basic design and installation techniques for residential landscapes. Course takes a hands-on approach to understanding the materials and techniques used in installing both drip and spray irrigation systems. Examines methods for evaluating performance of existing irrigation systems.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90S SUSTAINABLE INTEGRATED PEST MANAGEMENT (IPM) 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Advanced topics in sustainability build on core Integrated Pest Management (IPM) practices. Class provides additional techniques for managing specific insects, diseases, and weeds using a multi-faceted approach to pest management. Theoretical and practical aspects of sustainability are presented within the framework of specific landscape situations.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90T LANDSCAPE DESIGN: PERSPECTIVE SKETCHING 2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
24 hours lecture total per quarter.
Basic perspective sketching for landscape design presentations. Setup and rendering of one-point and two-point perspectives, including location of horizon lines and vanishing points, height determination, positioning of objects, and rendering techniques for plants, people, structures, and hardscape. Emphasis is on creating one-point, quick sketch perspectives for presentation to clients.
FHGE: Non-GE Applicable Transferable: CSU

HORT 90V SUSTAINABLE ORGANIC GARDENING 1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours lecture total per quarter.
Principles and practices utilized in the design, implementation, and maintenance of sustainable and organic gardens. Sustainable gardening practices that produce successful, environmentally responsible produce and crops.
FHGE: Non-GE Applicable Transferable: CSU
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Grade Type</th>
<th>FHGE</th>
<th>Transferable</th>
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</thead>
<tbody>
<tr>
<td>HORT 90X</td>
<td>WATER CONSERVATION IN LANDSCAPE DESIGN</td>
<td>1 Unit</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
<td>None</td>
<td>CSU</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
<td>Not Repeatable</td>
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<td>12 hours lecture total per quarter.</td>
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<td>Applies principles of water conservation to landscape design and construction projects. Landscape designs which incorporate water-conserving principles strive to limit the need for water and strike a balance between softscape and hardscape elements.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: CSU</td>
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<td>HORT 90Y</td>
<td>CACTI &amp; SUCCULENTS</td>
<td>1 Unit</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
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<td>Grade Type: Letter Grade Only</td>
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<td>12 hours lecture total per quarter.</td>
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<td>Identification, taxonomy, habits of growth, cultural and environmental requirements of plants grown in California. Emphasis on the use and maintenance of cacti and succulents with significant design features and landscape uses. Plants are observed via media and physical observation.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>HORT 90Z</td>
<td>ORNAMENTAL GRASSES</td>
<td>1 Unit</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
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<td>12 hours lecture total per quarter.</td>
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<td></td>
<td>Identification, taxonomy, habits of growth, cultural and environmental requirements of ornamental grasses grown in California. Emphasis on the use and maintenance of these monocots. Plants are observed via media and physical observation.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: CSU</td>
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<td>HORT 91A</td>
<td>COMPOSTING THEORY &amp; TECHNIQUES</td>
<td>1 Unit</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
<td>None</td>
<td>CSU</td>
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<td>Grade Type: Letter Grade Only</td>
<td>Not Repeatable</td>
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<td>12 hours lecture total per quarter.</td>
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<td>Comprehensive introduction to the theory and practices utilized in composting of organic materials. Course provides a combination of classroom lectures, demonstrations, and activities geared to providing a clear understanding of various composting techniques, including sustainable waste management practices, recycling of organics, backyard composting, and vermicomposting.</td>
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<td>HORT 91B</td>
<td>CONSTRUCTION COST ESTIMATING</td>
<td>1 Unit</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
<td>None</td>
<td>CSU</td>
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<td>Grade Type: Letter Grade Only</td>
<td>Not Repeatable</td>
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<td>12 hours lecture total per quarter.</td>
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<td>Evaluation of project designs for the purpose of measuring material quantities, estimating labor requirements to install, and calculating overhead and related costs. Techniques for measuring, compiling, and interpreting data, and generating project cost estimates will be addressed.</td>
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<td>HORT 91C</td>
<td>FINE GARDENING</td>
<td>1.5 Units</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
<td>None</td>
<td>CSU</td>
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<td>Grade Type: Letter Grade Only</td>
<td>Not Repeatable</td>
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<td>12 hours lecture total per quarter.</td>
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<td>Standards and techniques for developing community-based gardens, including community plots, maintenance of contracted plots and management of garden-oriented non-profit gardens. Topics include site selection, development of planting beds, selection of plant species, cultural management of crops, harvesting and marketing of crops.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: CSU</td>
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<td>HORT 91D</td>
<td>COMMUNITY GARDENING</td>
<td>1 Unit</td>
<td>Degree-applicable credit course</td>
<td>Letter Grade Only</td>
<td>None</td>
<td>CSU</td>
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<td>Grade Type: Letter Grade Only</td>
<td>Not Repeatable</td>
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<td>12 hours lecture total per quarter.</td>
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<td>Standards and techniques for developing community-based gardens, including community plots, maintenance of contracted plots and management of garden-oriented non-profit gardens. Topics include site selection, development of planting beds, selection of plant species, cultural management of crops, harvesting and marketing of crops.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: CSU</td>
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<td>HORT 400A</td>
<td>PEST MANAGEMENT: CULTURAL REQUIREMENTS</td>
<td>0 Units</td>
<td>Non-degree-applicable non-credit course</td>
<td>Non-credit course that receives no grade</td>
<td>Unlimited Repeatability.</td>
<td>None</td>
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<td>Grade Type: Non-credit course</td>
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<td>6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)</td>
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<td>This course will focus on the cultural requirements to reduce pesticide use. The first portion will concentrate on building soil and will discuss the chemicals that are deleterious to building soil. The next portion will discuss the methods used to diagnose problems with plants by determining whether it is caused by an organism (living or biotic) or not (non-living or abiotic). Integrated pest management uses the IPM pyramid or a hierarchical scale to select the right pesticide. New products in the marketplace will show the products that are relatively new in the pesticide realm. Weeds are a plant seemingly without virtue. This course will discuss methods of pesticide use to reduce the incidence of pesticide resistance, review the cultural controls for controlling weeds, and indicate which of these plants have benefits in a cropping system. This course may satisfy requirements for those students seeking continuing education for pesticide applicator licensure.</td>
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<td>FHGE: Non-GE Applicable</td>
<td></td>
<td>Transferable: None</td>
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<td>HORT 400B</td>
<td>PEST MANAGEMENT: PEST CONTROL</td>
<td>0 Units</td>
<td>Non-degree-applicable non-credit course</td>
<td>Non-credit course that receives no grade</td>
<td>Unlimited Repeatability.</td>
<td>None</td>
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<td>Grade Type: Non-credit course</td>
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<td>6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)</td>
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<td>This course will introduce students to the polyphagous shot hole borer as a means to biological control through predators. Additional topics include differentiating insects and exploring alternatives to pesticide use in lawn. This course may satisfy requirements for those students seeking continuing education for pesticide applicator licensure.</td>
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<td>FHGE: Non-GE Applicable</td>
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<td>Transferable: None</td>
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</tbody>
</table>
HORT 400C PEST MANAGEMENT: WORKING WITH PESTICIDES 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)
This course will address current topics in proper pesticide selection and handling. Topics will include reading and understanding a pesticide label, pesticide formulations and pesticide worker safety and use of personal protective equipment. This course may satisfy requirements for those students seeking continuing education for pesticide applicator licensure.
FHGE: Non-GE Applicable  Transferable: None

HORT 401A LANDSCAPE CERTIFICATION: 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
24 hours lecture total per quarter.
General subjects related to certification with the California Landscape Contractors Association. Includes horticultural math, plant identification, workplace safety, plant reading, plant sensitivity, grading and sodding, irrigation identification, controller programming, lateral repair and head adjustments and truck and trailer operation. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: None

HORT 401B LANDSCAPE CERTIFICATION: 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
12 hours lecture total per quarter.
General subjects related to certification with the California Landscape Contractors Association. Topics to include plan reading, plant layout, ornamental horticulture, irrigation components, controller programming, lateral repair and head adjustment, plant installation, post-planting care, sod installation, plant identification and rototiller operation. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: None

HORT 401C LANDSCAPE CERTIFICATION: 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
12 hours lecture total per quarter.
General subjects related to certification with the California Landscape Contractors Association. Topics include plan reading, hardscape math calculations, instrument operation, grading and drainage, equipment operation, and paver installation. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: None

HORT 401D LANDSCAPE CERTIFICATION: 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
24 hours lecture total per quarter.
General subjects related to certification with the California Landscape Contractors Association. Topics include irrigation plan reading, advanced irrigation components, basic horticultural principles, lateral repair and head adjustment, advanced program controller, lateral installation, mainline installation, valve repair, valve wiring and pipe installation equipment. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: None

HORT 401E LANDSCAPE CERTIFICATION: 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
12 hours lecture total per quarter.
General subjects related to certification with the California Landscape Contractors Association. Topics include irrigation principles, irrigation components, turfgrass principles, performing turfgrass calculations, basic controller programming, lateral repair and head adjustment, safe operation of power blower, 21” mower, intermediate walk-behind mower, riding mower, edger and trimmer, aerator, and understanding of turf fertilizer. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: None

HORT 401F LANDSCAPE CERTIFICATION: 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
12 hours lecture total per quarter.
General subjects related to certification with the California Landscape Contractors Association. Topics include ornamental horticulture maintenance principles, irrigation principles, irrigation components, maintenance calculations, plant identification review, controller programming, lateral repair and head adjustment, tree planting and staking, pruning, safe operation of landscape maintenance equipment. This course is intended for students seeking Certified Landscape Technician certification.
FHGE: Non-GE Applicable  Transferable: None

FIRE SCIENCE

Biological and Health Sciences
650.949.7249 foothill.edu

JFS 100 FIRE FIGHTER I ACADEMY 20 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: The student will be required to pass a physical agility test; further information to be provided to the student upon enrollment; not open to students with credit in JFS 307.
Grade Type: Letter Grade Only
Not Repeatable.
480 hours total.
Instruction on basic fire fighting skills, laws and regulations affecting the fire service. It will provide the student with knowledge and skills to safely perform, under minimal supervision, essential and advanced fire ground tasks, basic rescue, basic fire prevention and fire investigation task and to use, inspect, and maintain fire fighting and rescue equipment. Curriculum is intended to provide the minimum training required by the State of California Fire Marshal in the field of Fire technology as it relates to firefighters. Students will receive a Fire Fighter I Academy certificate at the completion of this course.
FHGE: Non-GE Applicable  Transferable: None
JFS 101A  FIRE CONTINUED

PROFESSIONAL TRAINING

(CPT)

1.5 Units

Degree & Credit Status: Degree-applicable credit course

Prerequisite: JFS 100 or equivalent.

Advisory: Not open to students with credit in JFS 308A.

Grade Type: Pass/No Pass Only

Not Repeatable.

44 hours total: 6 hours lecture, 38 hours laboratory.

Provides training which is required by the California State Fire Marshall to keep firefighters current with new equipment, policies, laws, medical training and fire skills needed to be prepared in the line of duty. Curriculum is used by multiple agencies, all requiring different training hour requirements. This course has fewer laboratory hours than JFS 101B.

FHGE: Non-GE Applicable  Transferable: None

JFS 101B  FIRE CONTINUED

PROFESSIONAL TRAINING 2

(CPT)

2 Units

Degree & Credit Status: Degree-applicable credit course

Prerequisite: JFS 100 or equivalent.

Advisory: Not open to students with credit in JFS 308B.

Grade Type: Pass/No Pass Only

Not Repeatable.

54 hours total.

Intended for current fire personnel, and provides training which is required by the California State Fire Marshall to keep firefighters current with new equipment, policies, laws, medical training and fire skills needed to be prepared in the line of duty. Provides advanced hands on training for firefighters.

FHGE: Non-GE Applicable  Transferable: None

GEOGRAPHY

Business and Social Sciences

650.949.7322  foothill.edu/geography/

GEO 1  PHYSICAL GEOGRAPHY

5 Units

Degree & Credit Status: Degree-applicable credit course

Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; MATH 180.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)

Study of the Earth’s surface, including the earth’s dimensions and systems; atmospheric processes; patterns of climate, vegetation and soils; and features, processes and interactions of land, water and various energy sources. Use of maps for interpretation.

FHGE: Natural Sciences  Transferable: CSU/UC

GEO 2  HUMAN GEOGRAPHY

4 Units

Degree & Credit Status: Degree-applicable credit course

Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

4 hours lecture. (48 hours total per quarter.)

The cultural geographic landscape. Study of the human population from origins to the present with an emphasis on the future. Examination of population densities, migrations and settlements; races, languages and religions; patterns of land use and major environmental perceptions and problems. Analysis of energy, mineral, and food resources and how cultures utilize them.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

GEO 5  INTRODUCTION TO ECONOMIC

GEOGRAPHY

4 Units

Degree & Credit Status: Degree-applicable credit course

Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

4 hours lecture. (48 hours total per quarter.)

Introduction to the geography of economic activity; the world wide distribution and characteristics of agriculture, forestry, fishing, mining, manufacturing, transportation, high technology and international trade.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

GEO 10  WORLD REGIONAL GEOGRAPHY

4 Units

Degree & Credit Status: Degree-applicable credit course

Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

4 hours lecture. (48 hours total per quarter.)

Survey of the world’s major culture regions and major nations. Physical, cultural, economic features. Emphasis on historical influences on population growth, transportation networks, natural environment, potential and problems. Location, importance and impact of the foremost features of countries, states, major cities, rivers and landform regions.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

GEO 11  INTRODUCTION TO MAPPING

& SPATIAL REASONING

4 Units

Degree & Credit Status: Degree-applicable credit course

Advisory: Elementary Algebra or equivalent; not open to students with credit in GIST 11.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

4 hours lecture. (48 hours total per quarter.)

Introduction to the fundamental concepts of GeoSpatial Technology, including Geographic Information Systems (GIS), Remote Sensing (RS) and Global Positioning Systems (GPS), map reading, and cartography. Exploration of how geospatial technologies are used in addressing human and environmental issues and can promote sustainability.

FHGE: Communication & Analytical Thinking  Transferable: CSU/UC

GEO 12  INTRODUCTION TO

GEOSPATIAL TECHNOLOGY

4 Units

Degree & Credit Status: Degree-applicable credit course

Advisory: GEOG 11 or GIST 11; not open to students with credit in GIST 12.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)

Study of Geospatial Technology, including Geographic Information Systems (GIS), Global Positioning Systems (GPS), cartography, remote sensing, and spatial analysis. Application of Geographic Information Systems (GIS) science to spatial data management. Assessment of vector and raster systems, scale, resolution, map projection, coordinate systems and georeferencing. Identification and acquisition of spatial data.

FHGE: Non-GE Applicable  Transferable: CSU/UC
GEOG 20  INTRODUCTION TO EARTH SCIENCE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An introduction to the essentials of Earth science, including the structure of the earth and its internal processes, the atmosphere, the hydrosphere, and solar system. This course focuses on the interactions between physical and chemical systems of the Earth, such as the plate tectonics, the rock cycle, the hydrologic cycle, weather and climate. Topics are aligned with the California State Science Standards for K-12 and will prepare pre-service teachers to teach these subjects.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GEOG 70R  INDEPENDENT STUDY IN GEOGRAPHY  1 Unit
GEOG 71R  2 Units
GEOG 72R  3 Units
GEOG 73R  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Geography beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU

GEOGRAPHY

GIST 12  INTRODUCTION TO GEOSPATIAL TECHNOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: GEOG 11 or GIST 11; GEOG 12 or GIST 12; GIST 52.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Study of Geospatial Technology, including Geographic Information Systems (GIS), Global Positioning Systems (GPS), cartography, remote sensing, and spatial analysis. Application of Geographic Information Systems (GIS) science to spatial data management, Assessment of vector and raster systems, scale, resolution, map projection, coordinate systems and georeferencing. Identification and acquisition of spatial data.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GIST 52  GEOSPATIAL DATA ACQUISITION & MANAGEMENT  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Successful completion of GEOG 11 or GIST 11 and GEOG 12 or GIST 12; not open to students with credit in GEOG 52.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
FHGE: Non-GE Applicable  Transferable: CSU

GIST 53  ADVANCED GEOSPATIAL TECHNOLOGY & SPATIAL ANALYSIS  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: GEOG 11 or GIST 11; GEOG 12 or GIST 12; GIST 52.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 6 hours laboratory. (96 hours total per quarter.)
Introduction to problem-solving and decision-making using geospatial analysis techniques, applicable to a range of disciplines.
FHGE: Non-GE Applicable  Transferable: CSU

GIST 54A  SEMINAR IN SPECIALIZED APPLICATIONS OF GEOGRAPHIC INFORMATION SYSTEMS I  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GEOG 54A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Seminar on the diverse applications of Geographic Information Systems (GIS). Weekly presentations by guest speakers.
FHGE: Non-GE Applicable  Transferable: CSU

GIST 58  REMOTE SENSING & DIGITAL IMAGE PROCESSING  3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GEOG 58.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Physical basis of remote sensing. Aerial photography and high resolution multi-band imaging. Satellite multi-band optical remote sensing. Other forms of remote sensing (RADAR, SAR, LIDAR). Applications of remote sensing.
FHGE: Non-GE Applicable  Transferable: CSU
GLOBAL STUDIES

Business and Social Sciences
650.949.7322  foothill.edu/globalstudies/

GLST 1  INTRODUCTION TO GLOBAL STUDIES  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; not open to students with credit in SOSC 1.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course provides students with an introduction to Global Studies. Students are offered an interdisciplinary view of globalization and its impacts through an examination of social, cultural, political, economic, and environmental contexts. The course emphasizes the interdependence and connections between global institutions, populations, and individuals.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GLST 2  GLOBAL ISSUES  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; not open to students with credit in SOSC 2.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course offers an introduction to the origins, current dilemmas, and future trends of major issues confronting the global community such as energy and resource depletion, food and population, war and terrorism, nuclear arms, human rights, economic interdependence, and international inequality. The role of global institutions and global citizenship will be considered as they relate to global issues.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GRAPHICS & INTERACTIVE DESIGN

Fine Arts and Communication
650.949.7571  foothill.edu/gid/

Foothill offers art activity courses in six different family categories. No single course may be repeated. Enrollment is limited to six courses per family within the Foothill-De Anza Community College District. Please refer to the De Anza College Catalog for the corresponding families and courses.

Printmaking Family: GID 46

GID 1  HISTORY OF GRAPHIC DESIGN  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in ART 36 or GRDS 36.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
A study of the development of visual communication in art, graphic design, illustration and popular culture. Emphasis on the role, impact and interpretation of images, symbols, and typography used in informative and persuasive media.
FHGE: Humanities  Transferable: CSU/UC

GID 31  GRAPHIC DESIGN DRAWING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GID 70 or GRDS 60.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Developing drawing skills for communicating ideas. Learning to simplify complex realistic images to express design concepts rapidly and effectively.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 33  GRAPHIC DESIGN STUDIO I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GID 50 or GRDS 53.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to graphic design and visual communication. Projects include composition, typography, image editing and logo design. Design principles are explored through creative projects. Students practice fundamental software skills using Adobe Photoshop, Illustrator, and InDesign to complete the graphic design activities in this course.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 34  GRAPHIC DESIGN STUDIO II  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GID 51.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Continuation of GID 33. Students engage in problem solving with real-world graphic design projects. Focus on creative solutions that effectively use type, image, and layout. Projects include brochure, advertisement, interface, and package design. Creative ideas are explored in sketches, rough layouts, and finished comps. Students learn software skills using Adobe InDesign, Illustrator, and Photoshop to complete the graphic design activities in this course.
FHGE: Non-GE Applicable  Transferable: CSU/UC
GID 35  GRAPHIC DESIGN STUDIO III  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GID 52.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Continuation of GID 34. Students design and produce a real-world graphic design campaign. Focus on creative solutions that effectively use type, image, and layout. Projects include branding, identity, newsletter, website, and package design. Creative ideas are explored in sketches, rough layouts, comps, and final presentations. Students learn Adobe CC software and industry standard software to complete the graphic design activities in this course.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 36  TYPOGRAPHY  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: GID 33 and 41, or proficiency using Illustrator software; not open to students with credit in GID 54 or GRDS 62.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to using computers and software for painting, drawing, image, and layout. Projects include creating images for limited-edition and one-of-a-kind fine art prints.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 37  CARTOON & COMIC ILLUSTRATION I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GID 72 or GRDS 73A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Exploration and experimentation with letter forms and page layout for expressive communication. Fundamental typographic principles, font recognition, and analysis of both historical and post modern design theory. Emphasis on content, form, and technique for effective use of typography in ads, posters, newsletters and other visual communications.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 41  DIGITAL ART & GRAPHICS  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Familiarity with computer operating systems; ART 4A or GID 31; ART 5A; not open to students with credit in ART 14D, GID 74, or GRDS 56.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to using computers and software for painting, drawing, image processing, photo composites, typography and time-based works. Emphasis on image making and creative problem solving.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 43  ILLUSTRATION & DIGITAL IMAGING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: ART 4A or GID 31; GID 41 or familiarity with painting and drawing software; not open to students with credit in GID 76 or GRDS 90.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Creation of images to communicate ideas. Traditional and digital media. Emphasis on concept development and communication effectiveness. Development of personal visual vocabulary while learning art making techniques and media, reproduction processes and illustration business practice.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 44A  FUNDAMENTALS OF 3-D ANIMATION  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction on how to create believable movement by applying the traditional principles of animation to the 3-D digital environment, and using the computer as a tool to animate characters, creatures, and simple props related to live-action and animation film. A wide variety of current industry standard software, and traditional principles of animation will be used to animate simple 3-D animation art assets and characters. Topics include an overview of the traditional principles of animation, and how to apply them to basic 3-D digital animation. Emphasis on body mechanics, with attention on the building blocks of an animated scene, and the workflow from planning phase to final animation for live-action and animation film, will also be explored.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 45  DIGITAL SOUND, VIDEO & ANIMATION  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in ART 88, DRAM 86, GID 80, GRDS 86, MUS 12 or VART 86.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Basic instruction using the computer for emerging media technologies; digital sound, video editing, and animation. Emphasis on time based media and creative problem solving.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 46  SCREENPRINTING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Printmaking family of activity courses; not open to students with credit in ART 39.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 47  MOTION GRAPHICS  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GID 84, GRDS 87, MDIA 32 or VART 87.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Basic instruction using the computer for motion graphic design, animation, and composite digital video production. Emphasis on time based media and its application to creative problem solving and communication solutions.
FHGE: Non-GE Applicable  Transferable: CSU/UC

GID 49  GAME ART & DESIGN  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
This course introduces the creative and technical aspects of computer and video game art and design. Students will learn conceptual and practical skills for bringing a comprehensive artistic vision to the creation of computer and video games, including concept art, character design, interface design, storytelling, and gameplay. Projects will emphasize creative design processes and digital prototyping of art for 2-D and 3-D computer and video games.
FHGE: Non-GE Applicable  Transferable: CSU/UC
GID 53A  BEGINNING T-SHIRT DESIGN & GARMENT PRINTING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GID 53.
Grade Type: Letter Grade or Pass/No Pass
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Basic instruction in design and printing for wearable art. Students learn techniques for image creation and preparation of artwork for screen-printing on t-shirts. Development of personal visual style while learning workflow of a professional printing studio.
FHGE: Non-GE Applicable Transferable: CSU

GID 53B  INTERMEDIATE T-SHIRT DESIGN & GARMENT PRINTING  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Continuation of GID 53A. Intermediate instruction in design and printing for wearable art. Students learn digital skills for image creation and preparation of multi-color artwork for screenprinting on t-shirts, fabrics and wearable substrates. Focused development of personal visual style with emphasis on portfolio quality work. Basic business procedures of the garment printing industry are put into practice.
FHGE: Non-GE Applicable Transferable: CSU

GID 53C  ADVANCED T-SHIRT DESIGN & GARMENT PRINTING  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Continuation of GID 53B. Advanced instruction in design, printing, management and business operations of a full-service garment printing business.
FHGE: Non-GE Applicable Transferable: CSU

GID 55  USER EXPERIENCE (UI/UX) DESIGN  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Design and develop successful user experiences (UI/UX) for mobile devices. Identify users and analyze their needs and behaviors. Organize content, create pathways, design media, and produce reusable elements. Appreciate the significance of branding. Conduct usability testing and collect data. Design iterations based on data findings. Explore issues in mobile design for multiple devices. Develop proficiency with professional software for mobile development.
FHGE: Non-GE Applicable Transferable: CSU

GID 56  WEBSITE DESIGN  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: not open to students with credit in GID 94.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Basic instruction using the computer for website and interface design. Emphasis on interactive media and creative problem solving.
FHGE: Non-GE Applicable Transferable: CSU

GID 57  WEBSITE DESIGN & DEVELOPMENT II  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: GID 56.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to HTML/XHTML for coding fully functional Web pages and websites. Emphasis on writing well-formed markup using current Web standards and coding technologies, design concepts, usability, accessibility, and browser compatibility. Brief introduction to JavaScript, HTML5, and XML.
FHGE: Non-GE Applicable Transferable: CSU

GID 58  WEB DESIGN & DEVELOPMENT III  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: GID 56 and 57.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Website design and production using an HTML editor software, with an emphasis on application of current HTML/CSS coding technologies, design concepts, usability and accessibility, organizing page content, producing dynamic pages, incorporating rich media, and reusable elements. Large scale website development with emphasis on site management, and web page delivery to multiple platforms. Develop proficiency with web production software Adobe Dreamweaver.
FHGE: Non-GE Applicable Transferable: CSU

GID 60  CAREERS IN THE VISUAL ARTS  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GID 53.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Exploring the field of visual arts including commercial arts, graphic design, photography, video arts, website design, and illustration. Survey of career paths including art studios, company art departments, advertising agencies, freelance, and other job opportunities for creative services professionals.
FHGE: Non-GE Applicable Transferable: CSU

GID 61  PORTFOLIO  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in GID 77.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Design and creation of portfolios for designers, illustrators, and photographers. Planning and implementation of individual professional portfolios.
FHGE: Non-GE Applicable Transferable: CSU

GID 67  MOBILE GAME DESIGN  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Learn how to design games for smart phones and mobile devices. This course explores the design and development processes for mobile games. The course introduces the concepts of character design, scene design, and asset creation for mobile games. Students will use mobile game design tools and techniques, including animation, game mechanics, scalable vector graphics, and sound effects, to build interactive game experiences. Professional techniques for game design planning and rapid prototyping, distribution and promotion of mobile games will be presented. Students will develop proficiency with professional software for mobile game design.
FHGE: Non-GE Applicable Transferable: CSU
COURSE CATALOG 2020–2021

GID 68A  INTRODUCTION TO VIRTUAL REALITY DESIGN  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to the core principles and foundations of design for virtual reality (VR) and immersive experiences. Students will learn theory, techniques and processes for design and development of successful VR and immersive experiences. Hands-on projects provide opportunities for creating VR animation, 3-D objects, environments and interfaces while exploring issues in design and development for VR and immersive devices. Students will develop proficiency with professional software for VR design and development.
FHGE: Non-GE Applicable Transferable: CSU

GID 68B  VIRTUAL REALITY GAME DESIGN  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Learn how to design virtual reality (VR) games and immersive experiences. Students will be introduced to conceptual theory, design techniques, and project management skills for building successful VR games and immersive experiences. Topics include ideation, concept development, character design, environment design, 3-D animation, and sound and lighting design for VR games and immersive experiences. Students will complete hands-on projects that progress through the phases of designing VR games and immersive experiences, from ideation through to final production while developing proficiency with professional software for VR game and immersive experience design.
FHGE: Non-GE Applicable Transferable: CSU

GID 71  STORYBOARDING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: GID 31; not open to students with credit in GRDS 76.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Fundamentals of creating storyboards and flowcharts for media projects. Emphasis on technique, concept development and design of storyboards. Exploration of storyboard applications for new media content.
FHGE: Non-GE Applicable Transferable: CSU

GID 77  ADVANCED WEBSITE DESIGN & DEVELOPMENT  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: GID 56 and 57.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to HTML5 and CSS3 for advanced Web development and design. Prepares students and working professionals to use advanced tags and layout. Emphasis on writing well-formed markup using current Web standards and coding technology, design concepts, usability, accessibility, and browser compatibility. Includes minor elements of JavaScript. Intended for students with a basic working knowledge of HTML/CSS and Web design.
FHGE: Non-GE Applicable Transferable: CSU

GID 78  RAPID WEBSITE DEVELOPMENT  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: GID 56, 57 and 58.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to Drupal and WordPress for rapid website development. Prepares students and working professionals to use rapid development tools to create and customize websites for small and large applications, from blogs to commercial development. Emphasis on authoring, modules and architecture, CMS (Content Management System), and administrative tools.
FHGE: Non-GE Applicable Transferable: CSU

HEALTH

Biological and Health Sciences
650.949.7249  foothill.edu/bhs/

HLTH 20  INTRODUCTION TO PUBLIC HEALTH  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to and an overview of public health. It covers: identifying and addressing population health challenges; determinants of health; and an overview of the health system. The basic concepts and terminologies of public health along with the history and accomplishments of public health officials and agencies will be reviewed. An overview of the functions of various public health professions and institutions, and an in-depth examination of the core public health disciplines is covered. Key topics include the epidemiology of infectious and chronic disease; prevention and control of diseases in the community including the analysis of the social determinants of health and strategies for eliminating disease, illness and health disparities among various populations; community organizing and health promotion programming; environmental health and safety; global health; and health care policy and management.
FHGE: Lifelong Understanding Transferable: CSU/UC

HLTH 21  CONTEMPORARY HEALTH CONCERNS  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course focuses on the exploration of major health issues and behaviors in the various dimensions of health. Emphasis is placed on individual responsibility for personal health and the promotion of informed, positive health behaviors. Topics include nutrition, exercise, weight control, mental health, stress management, violence, substance abuse, reproductive health, disease prevention, aging, health care, and environmental hazards and safety.
FHGE: Lifelong Understanding Transferable: CSU/UC
HLTH 22  HEALTH & SOCIAL JUSTICE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH or 1S & 1T.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course provides an introduction to the health inequities in the United States that stem from unequal living conditions. Students will explore how education, socioeconomic status, racism and gender shape health epidemics and policy development. The basic skills necessary for advocating for health and social justice will be theoretically demonstrated.
FHGE: Lifelong Understanding  Transferable: CSU/UC

HLTH 23  DRUGS, HEALTH & SOCIETY  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH or 1S & 1T.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course explores the world-wide crisis and challenge of substance abuse, including its historical effects on various societies and cultures. In addition to examining this from a social perspective, students will receive an overview of the epidemiology and toxicology of substance abuse and its relevance to personal and public health. Students will be introduced to the concept of substance abuse and dependence, the definition of licit and illicit drugs, and the pharmacologic, neurologic and physiologic effects of selected substances on the human brain. Political, social and economic factors involved in the supply and demand for drugs will be discussed. Epidemiologic data on the prevalence, incidence, and trends of smoking, alcohol, prescription and other drug dependencies globally will be covered, as well as risk factors associated with the use and abuse of these substances. Current options for recovery will be reviewed.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

HLTH 300  HEALTH ACROSS THE LIFESPAN  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Examines the basic principles that guide growth, development and the health of individuals across the lifespan, from the prenatal period through senescence. Presents methodological, conceptual and substantive issues necessary for understanding and evaluating empirically based information about growth, development and health at different stages of life and from a public health perspective. Course covers several themes, including contributions of biological and environmental factors to health and human development, measuring the health of individuals in communities, understanding determinants and consequences of health and development across the lifespan, measuring population health and assessing the implications of health disparities. This is an upper division General Education course, intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.
FHGE: Upper Division  Transferable: CSU

HIST 3A  WORLD HISTORY FROM PREHISTORY TO 750 CE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey of the world's ancient peoples, cultures and civilizations from Africa, Asia, Europe and the Americas and Oceania. Focus on the interactions between peoples and cultures in broad regions and the similarities and differences among civilizations.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

HIST 3B  WORLD HISTORY FROM 750 CE TO 1750 CE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey of world civilizations focusing on the increasing encounters between the world's peoples, cultures, and civilizations. Focus on the constructive and destructive impacts of interactions of civilizations in Europe, Africa, Asia, the Americas and Oceania.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

HIST 3C  WORLD HISTORY FROM 1750 CE TO THE PRESENT  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey of world civilizations as they transition from colonial to modern times. Focus on the increasing interdependency of human societies through revolution, war, globalization, and global environmental changes.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

HIST 4A  HISTORY OF WESTERN CIVILIZATION TO 800 CE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey of the development of Western culture and civilization in the ancient world. From the Neolithic period to the early Middle Ages.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC
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<td>HISTORY OF THE UNITED STATES FROM 1812 TO 1914</td>
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<td>Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 &amp; ESLL 249; not open to students with credit in HIST 17CH.</td>
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FHGE: Social & Behavioral Sciences  
Transferable: CSU/UC
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<td>HIST 20</td>
<td>HISTORY OF RUSSIA &amp; THE SOVIET UNION</td>
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<td>HIST 54H</td>
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**HUMANITIES**

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<td>HUMN 1: CULTURES, CIVILIZATIONS &amp; IDEAS: THE ANCIENT WORLD</td>
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<td>HUMN 1H</td>
<td>HUMN 1H: HONORS CULTURES, CIVILIZATIONS &amp; IDEAS: THE ANCIENT WORLD</td>
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**Business and Social Sciences**

650.949.7322  foothill.edu/humanities/
HUMN 2  CULTURES, CIVILIZATIONS & IDEAS: OF EMPIRES & CONFLICT  4 Units  
Degree & Credit Status: Degree-applicable credit course  
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in HUMN 1B.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture. (48 hours total per quarter.)  
An interdisciplinary and thematic approach to the history of human culture and ideas. Major eras include India's Pala Empire, China's Song and Ming Dynasty, the Mongol Empire, Japan's Muromachi Period, Culture, the people and empires of North, Central and South America, the Islamic Golden Age and the European Middle Ages. Class discussions, projects and lectures address the development of worldviews, moral and ethical values and the arts in civilizations across the globe and throughout time.  
FHGE: Humanities  Transferable: CSU/UC

HUMN 3  WORLD MYTHS IN LITERATURE ARTS & FILM  4 Units  
Degree & Credit Status: Degree-applicable credit course  
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T strongly recommended; not open to students with credit in HUMN 3H.  
Grade Type: Letter Grade Only  
Not Repeatable.  
4 hours lecture. (48 hours total per quarter.)  
An in-depth study of myths and legends, including, but not limited to, those from ancient Mesopotamia, classical Greece and Rome, Asia, India, Africa, Europe, and the indigenous Americas, and their adaptation in literature, art and film. The course traces both the function and influence of myths from diverse cultural contexts on our understanding of the past and our experience of modern/popular culture.  
FHGE: Humanities  Transferable: CSU/UC

HUMN 3H  HONORS WORLD MYTHS IN LITERATURE ARTS & FILM  4 Units  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Honors Institute participant.  
Advisory: Not open to students with credit in HUMN 3.  
Grade Type: Letter Grade Only  
Not Repeatable.  
4 hours lecture. (48 hours total per quarter.)  
An in-depth study of myths and legends, including, but not limited to, those from ancient Mesopotamia, classical Greece and Rome, Asia, India, Africa, Europe, and the indigenous Americas, and their adaptation in literature, art and film. The course traces both the function and influence of myths from diverse cultural contexts on our understanding of the past and our experience of modern/popular culture. As an honors course, it is a full seminar with advanced teaching methods focusing on major writing, reading and research assignments, student class presentations, group discussions and interactions.  
FHGE: Humanities  Transferable: CSU/UC

HUMN 4  TRAUMA & THE ARTS  4 Units  
Degree & Credit Status: Degree-applicable credit course  
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T strongly recommended; not open to students with credit in HUMN 4H.  
Grade Type: Letter Grade Only  
Not Repeatable.  
4 hours lecture. (48 hours total per quarter.)  
This course applies theories of trauma to representations of trauma and violence in the visual arts, literature, film and music with an emphasis on the transformative potential of the creative process. Topics include the representation of war, genocide and racism. Students will gain acuity to identify, understand, empathize, and respond to traumatic subjectivity, its images and artistic as well as social intent.  
FHGE: Humanities  Transferable: CSU/UC

HUMN 4H  HONORS TRAUMA & THE ARTS  4 Units  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Honors Institute participant.  
Advisory: Not open to students with credit in HUMN 4.  
Grade Type: Letter Grade Only  
Not Repeatable.  
4 hours lecture. (48 hours total per quarter.)  
This course applies theories of trauma to representations of trauma and violence in the visual arts, literature, film and music with an emphasis on the transformative potential of the creative process. Topics include the representation of war, genocide and racism. Students will gain acuity to identify, understand, empathize, and respond to traumatic subjectivity, its images and artistic as well as social intent. As an honors course, it is a full seminar with advanced teaching methods focusing on major writing, reading and research assignments, student class presentations, group discussions and interactions.  
FHGE: Humanities  Transferable: CSU/UC

HUMN 5  CULTURES, CIVILIZATIONS & IDEAS: THE MODERN WORLD  4 Units  
Degree & Credit Status: Degree-applicable credit course  
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in HUMN 5H.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture. (48 hours total per quarter.)  
An interdisciplinary and thematic approach to the history of human culture and ideas. Major eras covered include the Renaissance, the Age of Encounters, the Enlightenment, the Romantic Period, the Industrial Revolution and the dark legacy of Colonialism. Class discussions, projects and lectures address the development of worldviews, moral and ethical values and the arts in civilizations across the globe and throughout time.  
FHGE: Humanities  Transferable: CSU/UC

HUMN 5H  HONORS CULTURES, CIVILIZATIONS & IDEAS: THE MODERN WORLD  4 Units  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Honors Institute participant.  
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in HUMN 5H.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture. (48 hours total per quarter.)  
An interdisciplinary and thematic approach to the history of human culture and ideas. Major eras covered include the Renaissance, the Age of Encounters, the Enlightenment, the Romantic Period, the Industrial Revolution and the dark legacy of Colonialism. Class discussions, projects and lectures address the development of worldviews, moral and ethical values and the arts in civilizations across the globe and throughout time. As an honors course, this is a full seminar with advanced teaching methods focusing on major writing, reading and research assignments, student class presentations, group discussions and interactions.  
FHGE: Humanities  Transferable: CSU/UC
HUMN 54H

HONORS INSTITUTE SEMINAR
1 Unit

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
A seminar in directed readings, discussions, and projects in humanities. Specific topics to be determined by the instructor.

FHGE: Humanities Transferable: CSU/UC

HUMN 58

ONCE UPON A TIME? THE IMMORTAL LURE OF FAIRY TALES
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T strongly recommended.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An interdisciplinary exploration of the origins, structure and function of fairy tales and their enduring influence on contemporary art, film, and gaming. Examines how the fairy tale and its multi-cultural variants dynamically give voice to the universally shared human experience. Interdisciplinary strategies are employed to trace the impact of fairy tales on science fiction, fantasy, dystopia, and horror.

FHGE: Humanities Transferable: CSU/UC

HUMN 6

THE SHOCK OF THE NEW: FROM THE MODERN TO THE CONTEMPORARY
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in HUMN 34 or 34H.
Grade Type: Letter Grade Only
Advisory: Not open to students with credit in HUMN 34 or 34H.
Prerequisite: Honors Institute participant.
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in HUMN 34 or 34H.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An interdisciplinary and thematic approach to the history of human culture and ideas. Major eras covered include: Modernity (from cubism and expressionism to jazz and film), the Soviet Union and Nazi Germany, the Atomic Age, Post-Colonialism (India, Africa, Latin America, the Middle East), Post Modernity, and the Digital Age. Class discussions, projects and lectures address the development of worldviews, moral and ethical values and the arts in Asia, Europe, the Americas and Africa throughout the 20th Century and beyond.

FHGE: Humanities Transferable: CSU/UC

HUMN 7

GLOBAL RELIGIONS: CONTEMPORARY PRACTICES & PERSPECTIVES
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in HUMN 7H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An interdisciplinary course that explores how religions shape our understanding of diverse topics such as human rights, war, peace, globalization and science as well as music, sport, humor, film and the visual arts. Course eschews a focus on a specific tradition (i.e. Western or Eastern religions), and instead examines the inter-relationship between religion and human meaning creation through the specific lenses of ethics, aesthetics and politics.

FHGE: Humanities Transferable: CSU/UC

HUMN 8

EX MACHINA: THE PARADOX OF BEING HUMAN IN THE DIGITAL AGE
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in HUMN 58.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An inquiry into reality and human culture as a co-construct between technology and art. Through the study of film, video games and other cultural products, the course traces how social media and artificial intelligence challenge our understanding of what it means to be human and how social engagement in the digital age is altered by the acceleration of time and the collapse of space.

FHGE: Humanities Transferable: CSU/UC

HUMN 9

IMMORTAL LURE OF FAIRY TALES
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in HUMN 7H.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An interdisciplinary exploration of the origins, structure and function of fairy tales and their enduring influence on contemporary art, film, and gaming. Examines how the fairy tale and its multi-cultural variants dynamically give voice to the universally shared human experience. Interdisciplinary strategies are employed to trace the impact of fairy tales on science fiction, fantasy, dystopia, and horror.

FHGE: Humanities Transferable: CSU/UC

HUMN 44H

HONORS ART & TRANSGRESSION: THE HOLOCAUST IN THE LITERARY IMAGINATION
2 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
When Theodor Adorno claimed that “Writing Poetry after Auschwitz is barbaric,” he challenged us to reflect upon the dangers that come with artistic representation. This course traces how art mediates our encounters with history by examining the role of art in shaping our understanding of the Holocaust. Specifically the course examines art’s complicity in utilizing the Holocaust for national and political interests and art’s ability to provide a space that affords us to behold a realm beyond reason.

FHGE: Non-GE Applicable Transferable: CSU/UC

HUMN 10

THE FOUNDATIONS OF RELIGION
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in HUMN 7H.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An interdisciplinary course that explores how religions shape our understanding of diverse topics such as human rights, war, peace, globalization and science as well as music, sport, humor, film and the visual arts. Course eschews a focus on a specific tradition (i.e. Western or Eastern religions), and instead examines the inter-relationship between religion and human meaning creation through the specific lenses of ethics, aesthetics and politics.

FHGE: Humanities Transferable: CSU/UC
ITSC 101  STRUCTURED CABLELING ESSENTIALS  .5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Completion of recognized sound and communication apparatus or equivalent and recent employment as an installer/technician in the sound and communication industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
15 hours total: 9 hours lecture, 6 hours laboratory.
Covers the essentials in structured cabling, including telephony, industry standards, performance, and wiring.
FHGE: Non-GE Applicable  Transferable: None

ITSC 105  FIBER 1  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Completion of recognized sound and communication apparatus or equivalent and recent employment as an installer/technician in the sound and communication industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
15 hours lecture total.
Covers safety involved with optical cable, optical cable terms, communications over optical cable, fiber optic cable types, bandwidth performance, the effects of attenuation, fiber optic termination, splices, and types of connectors.
FHGE: Non-GE Applicable  Transferable: None

ITSC 106  FIBER 2  .5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Completion of recognized sound and communication apparatus or equivalent and recent employment as an installer/technician in the sound and communication industry.
Advisory: ITSC 105.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
17 hours total: 8 hours lecture, 9 hours laboratory.
Covers fiber optic transmission, testing, networks, installation and testing practices.
FHGE: Non-GE Applicable  Transferable: None

ITSC 110  ELECTRICAL THEORY ESSENTIALS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Completion of recognized sound and communication apparatus or equivalent and recent employment as an installer/technician in the sound and communication industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
26 hours total: 12 hours lecture, 14 hours laboratory.
Covers the basics of electrical circuits, how electricity works, how to calculate and measure voltage, current, resistance and power in a series and/or parallel circuit.
FHGE: Non-GE Applicable  Transferable: None

ITSC 113  MASTER CLOCKS  .5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Completion of recognized sound and communication apparatus or equivalent and recent employment as an installer/technician in the sound and communication industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
9 hours total: 6 hours lecture, 3 hours laboratory.
Covers the theory and installation of a master clock system. Lessons include: types of clocks, wired clocks, wireless clocks, clock syncing, and advanced clocks.
FHGE: Non-GE Applicable  Transferable: None

ITSC 114  NURSE CALL SYSTEMS  .5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Completion of recognized sound and communication apparatus or equivalent and recent employment as an installer/technician in the sound and communication industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours total: 6 hours lecture, 6 hours laboratory.
Covers the theory and installation of a nurse call system. Lessons include: components, ancillary systems, and working in a healthcare environment.
FHGE: Non-GE Applicable  Transferable: None

ITSC 115  COMPUTER LITERACY 1 (MICROSOFT WORD & EXCEL)  .5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Completion of recognized sound and communication apparatus or equivalent and recent employment as an installer/technician in the sound and communication industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
12 hours total: 6 hours lecture, 6 hours laboratory.
Covers the fundamentals of Microsoft Word and Excel; how to navigate the software, write, edit, format, create spreadsheets and use formulas.
FHGE: Non-GE Applicable  Transferable: None

ITSC 117  FIRE ALARM ESSENTIALS  .5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Completion of recognized sound and communication apparatus or equivalent and recent employment as an installer/technician in the sound and communication industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
21 hours total: 6 hours lecture, 15 hours laboratory.
Covers the essentials of fire alarm systems, including fundamentals, general requirements, fire alarm circuits, and wiring.
FHGE: Non-GE Applicable  Transferable: None

ITSC 125  PAGING SYSTEMS  .5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Completion of recognized sound and communication apparatus or equivalent and recent employment as an installer/technician in the sound and communication industry.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
9 hours total: 6 hours lecture, 3 hours laboratory.
Covers the essentials of paging systems, including functionality, components and how to wire/install.
FHGE: Non-GE Applicable  Transferable: None
**ITSC 127**  
**CATV/DAS**  
0.5 Units  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Completion of recognized sound and communication apprenticeship or equivalent and recent employment as an installer/technician in the sound and communication industry.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
12 hours total: 7 hours lecture, 5 hours laboratory.  
Covers the basic structure, cabling, tools, connectors and terminations, hardware, headend equipment and testing of a Closed Antenna Television and Distributed Antenna Systems (CATV/DAS) system.  
FHGE: Non-GE Applicable  Transferable: None

**ITSC 128**  
**NETWORK VIDEO**  
1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Completion of recognized sound and communication apprenticeship or equivalent and recent employment as an installer/technician in the sound and communication industry.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
21 hours total: 14 hours lecture, 7 hours laboratory.  
Covers basic networking, components, and installation of network video systems.  
FHGE: Non-GE Applicable  Transferable: None

**ITSC 130**  
**INTRUSION SYSTEMS**  
0.5 Units  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Completion of recognized sound and communication apprenticeship or equivalent and recent employment as an installer/technician in the sound and communication industry.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
12 hours total: 8 hours lecture, 4 hours laboratory.  
Covers the applicable standards, preventing false alarms, components, wiring and installation of intrusion systems.  
FHGE: Non-GE Applicable  Transferable: None

**ITSC 131**  
**ACCESS CONTROL SYSTEMS**  
0.5 Units  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Completion of recognized sound and communication apprenticeship or equivalent and recent employment as an installer/technician in the sound and communication industry.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
9 hours total: 6 hours lecture, 3 hours laboratory.  
Covers the categories, components, credentials, types of locks, wiring and installation of access control systems.  
FHGE: Non-GE Applicable  Transferable: None

**ITSC 132**  
**AUDIO VISUAL ESSENTIALS**  
1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Completion of recognized sound and communication apprenticeship or equivalent and recent employment as an installer/technician in the sound and communication industry.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
18 hours total: 12 hours lecture, 5 hours laboratory.  
Covers analog and digital signals, basics of sound, microphones, amplifiers, speakers, video signals, and projection technology.  
FHGE: Non-GE Applicable  Transferable: None

**ITSC 134**  
**BLUEPRINTS, LEED, TITLE 24**  
0.5 Units  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Completion of recognized sound and communication apprenticeship or equivalent and recent employment as an installer/technician in the sound and communication industry.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
9 hours total: 6 hours lecture, 3 hours laboratory.  
Covers reading blueprints, Leadership in Energy and Environmental Design (LEED), and energy efficiency standards.  
FHGE: Non-GE Applicable  Transferable: None

**INTERDISCIPLINARY STUDIES**

**Biological and Health Sciences**

**IDS 300**  
**RESEARCH METHODOLOGY FOR HEALTH PROFESSIONALS**  
5 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade Only  
Not Repeatable.  
5 hours lecture. (60 hours total per quarter.)  
This course is designed to introduce students to the research process and how it applies to evidence-based patient care. Emphasis on research design and methods, scientific databases and evidence-based resources. Application of research methods and statistical techniques to the critical evaluation of current scientific literature. Evidence-based decision making and development of critical thinking skills will be discussed. This is an upper division General Education course, intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.  
FHGE: Upper Division  Transferable: CSU

**INTERNSHIP**

**Business and Social Sciences**

**ITRN 50**  
**INTERNSHIP**  
1 Unit  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
3 hours laboratory. (36 hours total per quarter.)  
The internship is a structured worked experience with an organization or company external to the classroom. This activity primarily involves the student and faculty working with a third party. The primary management of the student’s activities and the majority of the evaluation score is done by the third party offsite supervisor. The internship will address professional workplace skills in addition to targeted technical skills as appropriate. Faculty works with the offsite supervisor to create an internship that is targeted at the student’s skill level. The student will meet with their faculty supervisor 2-3 times per quarter to discuss 21st century skills, issues of discipline, professionalism, application of technical skills and professional code of ethics. The student is required to contract with Faculty to determine the type and scope of the assignment.  
FHGE: Non-GE Applicable  Transferable: CSU
### ITRN 51 INTERNSHIP 2 Units

Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
6 hours laboratory. (72 hours total per quarter.)  
The internship is a structured worked experience with an organization or company external to the classroom. This activity primarily involves the student and faculty working with a third party. The primary management of the student's activities and the majority of the evaluation score is done by the third party offsite supervisor. The internship will address professional workplace skills in addition to targeted technical skills as appropriate. Faculty works with the offsite supervisor to create an internship that is targeted at the student's skill level. The student will meet with their faculty supervisor 2-3 times per quarter to discuss 21st century skills, issues of discipline, professionalism, application of technical skills and professional code of ethics. The student is required to contract with faculty to determine the type and scope of the assignment.  
FHGE: Non-GE Applicable  Transferable: CSU

### ITRN 52 INTERNSHIP 3 Units

Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
9 hours laboratory. (108 hours total per quarter.)  
The internship is a structured worked experience with an organization or company external to the classroom. This activity primarily involves the student and faculty working with a third party. The primary management of the student's activities and the majority of the evaluation score is done by the third party offsite supervisor. The internship will address professional workplace skills in addition to targeted technical skills as appropriate. Faculty works with the offsite supervisor to create an internship that is targeted at the student's skill level. The student will meet with their faculty supervisor 2-3 times per quarter to discuss 21st century skills, issues of discipline, professionalism, application of technical skills and professional code of ethics. The student is required to contract with faculty to determine the type and scope of the assignment.  
FHGE: Non-GE Applicable  Transferable: CSU

### ITRN 53 INTERNSHIP 4 Units

Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
12 hours laboratory. (144 hours total per quarter.)  
The internship is a structured worked experience with an organization or company external to the classroom. This activity primarily involves the student and faculty working with a third party. The primary management of the student's activities and the majority of the evaluation score is done by the third party offsite supervisor. The internship will address professional workplace skills in addition to targeted technical skills as appropriate. Faculty works with the offsite supervisor to create an internship that is targeted at the student's skill level. The student will meet with their faculty supervisor 2-3 times per quarter to discuss 21st century skills, issues of discipline, professionalism, application of technical skills and professional code of ethics. The student is required to contract with faculty to determine the type and scope of the assignment.  
FHGE: Non-GE Applicable  Transferable: CSU

### ITRN 54 INTERNSHIP 5 Units

Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
15 hours laboratory. (180 hours total per quarter.)  
The internship is a structured worked experience with an organization or company external to the classroom. This activity primarily involves the student and faculty working with a third party. The primary management of the student's activities and the majority of the evaluation score is done by the third party offsite supervisor. The internship will address professional workplace skills in addition to targeted technical skills as appropriate. Faculty works with the offsite supervisor to create an internship that is targeted at the student's skill level. The student will meet with their faculty supervisor 2-3 times per quarter to discuss 21st century skills, issues of discipline, professionalism, application of technical skills and professional code of ethics. The student is required to contract with faculty to determine the type and scope of the assignment.  
FHGE: Non-GE Applicable  Transferable: CSU

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### JAPANESE

**Language Arts**  
650.949.7043  foothill.edu/japanese/

For information on clearing a foreign language prerequisite, please contact the Student & Faculty Support center at FHGetHelp@fhda.edu.

**JAPN 1 ELEMENTARY JAPANESE I** 5 Units  
Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
5 hours lecture. (60 hours total per quarter.)  
Oral and written practice in the minimum competencies in language functions: vocabulary essential to basic communicative situations; grammar necessary for carrying out functions, signals for carrying out communicative tasks, and cultural skills in specific situations. Introduction to Hiragana, Katakana and about 80 Kanji.  
FHGE: Non-GE Applicable  Transferable: CSU/UC

**JAPN 2 ELEMENTARY JAPANESE II** 5 Units  
Degree & Credit Status: Degree-applicable credit course  
Prerequisite: JAPN 1 or equivalent.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
5 hours lecture. (60 hours total per quarter.)  
Further development of material presented in JAPN 1. Oral and written practice in competencies in language functions; vocabulary essential to daily communicative situations; grammar necessary for carrying out functions, signals for carrying out communicative tasks, and cultural skills in specific situations. Distinguishing formal and informal styles. Additional 120 Kanji pronunciation and recognition.  
FHGE: Non-GE Applicable  Transferable: CSU/UC
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Prerequisite(s)</th>
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<tr>
<td>JAPN 3</td>
<td>ELEMENTARY JAPANESE III</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>JAPN 2 or equivalent</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Degree-applicable credit course</td>
<td>Not Repeatable</td>
<td>5 (60 hours total per quarter.)</td>
<td>Further development of material presented in JAPN 1 &amp; 2. Oral and written practice in competencies in language functions: vocabulary essential to daily communicative situations, grammar necessary for carrying out various functions, signals for carrying out communicative tasks, and cultural skills in specific situations. Distinguishing formal and informal styles, and using honorifics. Making suppositions. Additional 120 Kanji pronunciation and recognition. FHGE: Non-GE Applicable Transferable: CSU/UC</td>
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<tr>
<td>JAPN 4</td>
<td>INTERMEDIATE JAPANESE I</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>JAPN 3 or equivalent</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Degree-applicable credit course</td>
<td>Not Repeatable</td>
<td>5 (60 hours total per quarter.)</td>
<td>Continuation of JAPN 3. Review of grammar and discussion of grammatical features beyond the elementary level. Introduction to intermediate-level grammar and communicative tasks. Intensive oral and written drills, including additional 110 Kanji, in idiomatic constructions. Composition, conversation and selected readings. FHGE: Non-GE Applicable Transferable: CSU/UC</td>
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<tr>
<td>JAPN 5</td>
<td>INTERMEDIATE JAPANESE II</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>JAPN 4 or equivalent</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Degree-applicable credit course</td>
<td>Not Repeatable</td>
<td>5 (60 hours total per quarter.)</td>
<td>Continuation of JAPN 4. Development of intermediate-level grammatical structures and communicative tasks. Further practice in intensive oral and written drills, including additional 150 Kanji, in idiomatic constructions. Composition, conversation and selected readings. Differentiating socio-linguistic features, such as honorifics, feminine and masculine styles. Cultural skills to carry out tasks. FHGE: Non-GE Applicable Transferable: CSU/UC</td>
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<tr>
<td>JAPN 6</td>
<td>INTERMEDIATE JAPANESE III</td>
<td>5</td>
<td>Degree-applicable credit course</td>
<td>JAPN 5.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Degree-applicable credit course</td>
<td>Not Repeatable</td>
<td>5 (60 hours total per quarter.)</td>
<td>Continuation of JAPN 5. Further development of intermediate-level grammatical structures and communicative tasks. Intensive and extensive oral and written drills, including 230 more Kanji, in idiomatic constructions. Composition, conversation and selected readings. Further competency in correct language usage in different socio-linguistic features of speech. Stating and supporting opinions on both concrete and abstract topics. Cultural skills to carry out tasks. FHGE: Non-GE Applicable Transferable: CSU/UC</td>
</tr>
<tr>
<td>JAPN 13A</td>
<td>INTERMEDIATE CONVERSATION I</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>JAPN 3.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Degree-applicable credit course</td>
<td>Not Repeatable</td>
<td>4 (48 hours total per quarter.)</td>
<td>Speaking and listening experience in culturally appropriate ways. Special emphasis on correct perception and speaking, and familiarity with oral idioms and grammar as they differ from more formal written and literary uses. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, formal and informal conversations. Understanding ambiguities, vagaries, and value inherent in the target language. FHGE: Non-GE Applicable Transferable: CSU/UC</td>
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<tr>
<td>JAPN 13B</td>
<td>INTERMEDIATE CONVERSATION II</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>JAPN 13A.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Degree-applicable credit course</td>
<td>Not Repeatable</td>
<td>4 (48 hours total per quarter.)</td>
<td>Continuation of JAPN 13A. Speaking and listening experience in an environment of increasingly challenging language situation in culturally appropriate ways. Special emphasis on rapidity of correct perception and speaking, acquaintance with a variety of native dialects, and familiarity with oral idioms and grammar as they differ from more formal written and literary uses. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, political speech, and debates. Stating and supporting opinions on various topics. Understanding ambiguities, vagaries, and value inherent in the target language. FHGE: Non-GE Applicable Transferable: CSU/UC</td>
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<tr>
<td>JAPN 14A</td>
<td>ADVANCED CONVERSATION I</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>JAPN 13B.</td>
<td>Letter Grade or Pass/No Pass</td>
<td>Degree-applicable credit course</td>
<td>Not Repeatable</td>
<td>4 (48 hours total per quarter.)</td>
<td>Development of fluency in the oral/aural language, and cultural skills required in socio-linguistic functions, e.g., honorifics, in-group/out-group, male/female, and formal/informal expressions. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, political speech, debates, and drama. Stating and supporting opinions on various topics, including abstract concepts. Understanding and appreciating ambiguities, vagaries, and value inherent in the target language. FHGE: Humanities Transferable: CSU/UC</td>
</tr>
</tbody>
</table>
JAPN 14B ADVANCED CONVERSATION II 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: May be taken concurrently with JAPN 14A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Continuation of JAPN 14A. Development of advanced level of oral/aural fluency in the language, and cultural skills required in socio-linguistic functions. Stating and supporting opinions on complex, abstract topics. Analyzing and hypothesizing. Understanding cultural differences, persuading, negotiating, and giving speech in formal settings. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, debates on various issues, and drama.
FHGE: Humanities Transferable: CSU/UC

JAPN 101A JAPANESE LANGUAGE PROFICIENCY TEST PREPARATION I 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: JAPN 3 or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
This course is designed to help prepare students for the Japanese Language Proficiency Test (JLPT) N4 level and aims at enabling students to pass the JLPT N4 level. Students will comprehensively expand their proficiency in Japanese and increase ability to use the knowledge in actual communication. Covers vocabulary, Kanji, grammar, reading comprehension and listening comprehension related to the JLPT N4 level. Special emphasis is placed on reading and listening comprehension. Students will also learn a strategy to pass the JLPT N4 level.
FHGE: Non-GE Applicable Transferable: None

JAPN 101B JAPANESE LANGUAGE PROFICIENCY TEST PREPARATION II 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: JAPN 101A or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Continuation of JAPN 101A, this course aims at enabling students to pass the Japanese Language Proficiency Test (JLPT) N4 level. Development of intermediate level of reading and listening skills by understanding a more complex range of information. Reading and listening skills and ability to use the knowledge in actual communication are to be developed through classroom activities and homework assignments. Special emphasis is placed on rapidity of correct perception and acquaintance with a variety of native dialects, and familiarity with oral idioms and grammar. Students will also learn a strategy to pass the JLPT N4 level.
FHGE: Non-GE Applicable Transferable: None

JAPN 101C JAPANESE LANGUAGE PROFICIENCY TEST PREPARATION III 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: JAPN 101B or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Continuation of JAPN 101B, this course aims at enabling students to pass the Japanese Language Proficiency Test (JLPT) N4 level. Further development of intermediate level of reading and listening by increasing vocabulary and by understanding socio-linguistic features, such as honorific verbs and extra-modest expressions. Repeating and listening experience in an environment of increasingly challenging language situations. Students will gain a high level of communicative competence and continue to learn Kanji. Students will also learn a strategy to pass the JLPT N4 level.
FHGE: Non-GE Applicable Transferable: None

JAPN 101D JAPANESE LANGUAGE PROFICIENCY TEST PREPARATION IV 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: JAPN 101C or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Continuation of JAPN 101C, this course aims at enabling students to pass the Japanese Language Proficiency Test (JLPT) N4 level, as well as helps prepare students for the JLPT N3 level. Development of advanced level of reading and listening skills by understanding a more abstract range of information relating to high-frequency situations and by exploring various forms of authentic materials, such as current news media and drama. Students will gain a high level of communicative competence and continue to learn Kanji. Students will also learn a strategy to pass the JLPT N4 level and N4 level.
FHGE: Non-GE Applicable Transferable: None

JAPN 192 COMMUNITY SERVICE LEARNING FOR JAPANESE 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of JAPN 6 or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
For students who desire training in experiential learning as community volunteers in Japanese language courses. The students enrolled in this course will assist the instructor as in-class Japanese language tutors.
FHGE: Non-GE Applicable Transferable: None
JOURNALISM
Fine Arts and Communication
650.949.7262 foothill.edu

JRNL 22A INTRODUCTION TO REPORTING 5 Units
& NEWSWRITING
Degree & Credit Status: Degree-applicable credit course
Advisory: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in JRNL 52A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
An introduction to gathering, synthesizing/organizing and writing news in journalistic style across multiple platforms. Includes role of the journalist and related legal and ethical issues, including instruction and practice in reporting and the fundamentals of news writing for media, with analysis of typical news stories. Concentration on the language and style of news writing; organization and structure of news stories; the lead and the basic story types. Students will report and write based on their original interviews and research to produce news content. Experiences may include covering speeches, meetings, and other events, writing under deadline and use of AP Style.
FHGE: Non-GE Applicable Transferable: CSU

JRNL 22B INTERMEDIATE REPORTING/NEWSWRITING 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in JRNL 52A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
This course is a continuation of the introductory newswriting/reporting course (JRNL 22A) and focuses on coverage of public affairs beats, including local and regional government, police, courts, and school and city boards. Fundamentals in feature writing for newspapers, magazines and other media with instruction and practice in profile, human interest, consumer and interpretive news features. It includes both on- and off-campus reporting and writing/news presentation for a variety of news purposes and through multiple platforms with practical experience in interviewing, writing special story types and revising.
FHGE: Non-GE Applicable Transferable: CSU

JRNL 53A STUDENT MEDIA PRACTICUM I 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in JRNL 49.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 6 hours laboratory. (108 hours total per quarter.)
Provides practical experience in creating basic news and feature content as members of the college newspaper, magazine or online media staff, which includes a lab that regularly produces a news or feature non-fiction product with a journalism emphasis by and for students and distributed to a campus or community audience. Must include weekly news assignments. May include a variety of student media across multiple platforms, including print, broadcast, and online. Includes practical experience in design/layout, visual, online, multimedia journalism, and emerging technologies. Must be student-produced with student leadership.
FHGE: Non-GE Applicable Transferable: CSU

JRNL 53B STUDENT MEDIA PRACTICUM II 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in JRNL 25.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 9 hours laboratory. (132 hours total per quarter.)
This course provides practical experience in creating longer and complex news, feature and visual content as a member of the college newspaper, magazine or online media staff, requiring higher skill level and/or leadership/management involvement than JRNL 53A. Intermediate student media practicum includes a lab that regularly produces a news or feature non-fiction product with a journalism emphasis by and for students and distributed to a campus or community audience. Must include weekly news assignments. May include a variety of student media across multiple platforms, including print, broadcast, and online. Includes practical experience in design/layout, visual, online, multimedia journalism, emerging technologies and leadership/management. Must be student-produced with student leadership.
FHGE: Non-GE Applicable Transferable: CSU

JRNL 60 EDITORIAL LEADERSHIP FOR STUDENT NEWS MEDIA 2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
Practical experience in planning, assigning, editing and placing print, video and/or web content as members of the college newspaper, magazine or media staff.
FHGE: Non-GE Applicable Transferable: CSU

JRNL 61 REPORTING FOR STUDENT NEWS MEDIA 2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
Practical experience contributing as a reporter to the college newspaper and/or digital media as a reporter.
FHGE: Non-GE Applicable Transferable: CSU

JRNL 62 DIGITAL PRODUCTION FOR STUDENT MEDIA 2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
Practical experience contributing as a digital content producer to the college news media.
FHGE: Non-GE Applicable Transferable: CSU

JRNL 64 PHOTOGRAPHY FOR STUDENT MEDIA 2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
Practical experience contributing as a photographer to the college newspaper and/or digital media as a reporter.
FHGE: Non-GE Applicable Transferable: CSU
JRNL 70R           INDEPENDENT STUDY IN JOURNALISM  1 Unit
JRNL 71R           2 Units
JRNL 72R           3 Units
JRNL 73R           4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Journalism beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU

JOURNEYPERSONS

Apprenticeship
650.949.7142  foothill.edu/apprenticeships/

JRYM 100           BUILDING TRADES TEACHER DEVELOPMENT  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
60 hours lecture total.
Basic principles and techniques of how to become a teacher in the local labor union trade. Actively develop communication, leadership, and presentation skills. The community learning environment will foster individuals to work individually, in partners, and groups, to comprehensively design and facilitate lecture instruction. Instruction provided to create a course syllabus, lesson plan, evaluation tools, and integrate multi-mode learning methods. Develop and demonstrate public speaking skills in an individual and group environment.
FHGE: Non-GE Applicable  Transferable: None

JRYM 105           PROJECT MANAGEMENT DEVELOPMENT FOR COMMERCIAL CONSTRUCTION LEVEL 1  2.5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
54 hours total: 18 hours lecture, 36 hours laboratory.
In this course students will learn the roles and responsibilities of a commercial construction project manager. Students will learn topics that cover the entire life cycle of a construction project. Lecture and exercises will entail pre-construction planning, estimating, project monitoring, and project closeout.
FHGE: Non-GE Applicable  Transferable: None
KINESIOLOGY

Kinesiology and Athletics
650.949.7742  foothill.edu/kinesiology/

KINS 1  INTRODUCTION TO KINESIOLOGY 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in PHED 1.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to the interdisciplinary approach to the study of human movement. An overview of the importance of the sub-disciplines in kinesiology will be discussed along with career opportunities in the areas of teaching, coaching, allied health, and fitness professions.
FHGE: Non-GE Applicable  Transferable: CSU/UC

KINS 2  SPORT IN SOCIETY 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Maximum UC credit awarded for any or all of the following courses combined is 12 units: KINS 2, 3, 8A, 8B; not open to students with credit in H P 1B or PHED 2.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Students examine the history of sports and its significance in economics and politics, and the role of race, ethnicity, culture and gender in sport and society. Students also examine specific issues, such as the emergence of professional and collegiate sports in the United States, questions of ethics, commercialization, the relationship between sports and media, the internationalization of sports, and the Olympic movement. Students will also examine youth sport and the current status of youth sport in the United States.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

KINS 3  THEORIES & TECHNIQUES OF COACHING SPORTS 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Maximum UC credit awarded for any or all of the following courses combined is 12 units: KINS 2, 3, 8A, 8B; not open to students with credit in H P 37 or PHED 3.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Instruction to the theories and techniques of coaching sport and its variables which contribute to team performance and success. Addresses developing a coaching philosophy, sport psychology, sport pedagogy, sport physiology and sport management.
FHGE: Non-GE Applicable  Transferable: CSU/UC

KINS 4  CONCEPTS OF PHYSICAL FITNESS & WELLNESS 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in PHED 4.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Study of physical fitness, training principles, nutrition and body composition, stress management, appropriate exercise and health practices with application to lifelong fitness and wellness habits.
FHGE: Lifelong Understanding  Transferable: CSU/UC

KINS 8A  THEORY & CONCEPTS OF EXERCISE PHYSIOLOGY I 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Maximum UC credit awarded for any or all of the following courses combined is 12 units: KINS 2, 3, 8A, 8B; not open to students with credit in PHED 8.
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Basic concepts and principles of exercise physiology and how the human body responds to the demands of physical activity. Emphasis on anatomy and physiology of human organ systems; cardiorespiratory function; neural and hormonal control; energy systems, expenditure, and fatigue; adaptations to resistance, aerobic and anaerobic training; body composition and nutrition; and principles of training for sport.
FHGE: Non-GE Applicable  Transferable: CSU/UC

KINS 8B  THEORY & CONCEPTS OF EXERCISE PHYSIOLOGY II 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Maximum UC credit awarded for any or all of the following courses combined is 12 units: KINS 2, 3, 8A, 8B.
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Applied concepts and principles of exercise physiology and how the human body responds to the demands of physical activity. Emphasis on the impact of environmental influences, including physiological responses to exercise in the heat, cold, and at altitude; optimizing performance in sport, over-training and detraining; body composition and nutrition; use of ergogenic aids; age and sex considerations in sport and exercise; and the implications of physical activity for health and fitness.
FHGE: Non-GE Applicable  Transferable: CSU/UC

KINS 9  BASIC NUTRITION FOR SPORTS & FITNESS 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in PHED 9.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Practical application of the basic principles of nutrition and how food choices affect health and fitness. This course will provide the student with a basic understanding of how nutrition can be optimized to enhance physical performance potential and sport. "Dietary Guidelines for Americans" will be utilized to inform selection of foods that would maximize individual health.
FHGE: Non-GE Applicable  Transferable: CSU/UC

KINS 10  WOMEN IN SPORTS 5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
This course provides students with a chronological history, analysis and interpretation of people, events, and issues that affect women in sport, in past and present day society. Physiological, sociological and psychological aspects of female athletes as related to sports, history, and education will be covered. Students will gain an understanding of the significant events of women in athletics from the past to the present and how their significance will determine the future of women in sports.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC
KINS 15  FIRST AID & CPR/AED 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC transfer credit is limited for some KINS courses—please see ASSIST.org for details; not open to students with credit in PHED 15 or 66.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 1 hour laboratory. (24 hours total per quarter.)
Provides the layperson with the knowledge and skills to respond to an emergency. Certification opportunity in First Aid and CPR/AED, CPR/AED for the Professional Rescuer, or Basic Life Support for the Healthcare Provider.
FHGE: Non-GE Applicable  Transferable: CSU/UC

KINS 16A  PREVENTION OF ATHLETIC INJURIES 3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Internet access to complete quizzes, discussions and assignments; not open to students with credit in H P 67A, PHED 16A or 67A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Practical hands-on skills are emphasized in laboratories. Basic injury recognition and emergency response to acute trauma. Practical hands-on skills are emphasized in laboratories.
FHGE: Lifelong Understanding  Transferable: CSU/UC

KINS 16B  EMERGENCY ATHLETIC INJURY CARE 3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Internet access to complete quizzes, discussions and assignments; not open to students with credit in H P 67B, PHED 16B or 67B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
American Red Cross Standard First Aid/CPR certificates are available upon completion of the course. Basic injury recognition and emergency response to acute trauma. Practical hands-on skills are emphasized in laboratories.
FHGE: Lifelong Understanding  Transferable: CSU/UC

KINS 16C  TREATMENT & REHABILITATION OF ATHLETIC INJURIES 3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Internet access to complete quizzes, discussions and assignments; not open to students with credit in H P 67C, PHED 16C or 67C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
Follow-up injury treatment, phases of tissue healing, and stages of rehabilitation, including therapeutic modalities.
FHGE: Lifelong Understanding  Transferable: CSU/UC

KINS 48  FITNESS ASSESSMENT TECHNIQUES FOR THE PERSONAL TRAINER 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This is a Physical Education activity course, so UC transfer credit is limited—please visit a counselor for details; not open to students with credit in KINS 52.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
The mechanics of fitness training, including strength, endurance and flexibility; provides students the necessary knowledge base to select appropriate fitness assessments. Discussion regarding training techniques, optimal workout environments, safety, contraindications, equipment and existing certification programs will prepare the student to work in the fitness industry. Students will evaluate existing standardized assessment batteries for cardiorespiratory endurance, muscular strength, muscular endurance, flexibility and body composition, blood pressure and cholesterol.
FHGE: Non-GE Applicable  Transferable: CSU/UC

KINS 51  PERFORMANCE ENHANCING SUBSTANCES IN SPORT & EXERCISE 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in PHED 51.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Current and historical issues, as well as general social, biochemical, pharmacological and behavioral information related to performance enhancing substances in sport and exercise. Areas to be addressed include, but are not limited to: theories of addiction, populations, social implications, anabolics, blood doping, diuretics, nutritional ergogenic aids, social and recreational drugs, stimulants, emerging science and technologies, and drug testing.
FHGE: Social & Behavioral Sciences  Transferable: CSU

KINS 53  CURRENT TOPICS IN PERSONAL TRAINING 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: KINS 8A and 9.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Discussion of current issues in the fitness field, insurance, liability, standard business practices and national certifications. Emphasis is placed on client assessment, program design, teaching strategies and professional responsibility. Students apply knowledge of basic anatomy, exercise physiology, kinesiology, personal information gathering and exercise testing.
FHGE: Non-GE Applicable  Transferable: CSU

KINS 54  INTRODUCTION TO SPORTS MANAGEMENT 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to the field of sports management. Career opportunities, human resources management, leadership, strategic planning, teamwork, ethics and values, marketing and advertising, finance, managing facilities, sports and the law, economics of sport and community impact.
FHGE: Non-GE Applicable  Transferable: CSU
### SPORTS MEDICINE I
**KINS 62A**  CLINICAL EXPERIENCES IN SPORTS MEDICINE I  3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in H P 52A or PHED 62A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
9 hours laboratory. (108 hours total per quarter.)
Hands-on experience in athletic emergency care, athletic injury prevention, therapeutic treatment, and rehabilitation of athletic injuries in the on-campus Athletic Treatment Center. Observation of orthopedic surgical procedures with the permission of the team physician is available.
FHGE: Non-GE Applicable  Transferable: CSU

### SPORTS MEDICINE II
**KINS 62B**  CLINICAL EXPERIENCES IN SPORTS MEDICINE II  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: KINS 62A.
Advisory: Not open to students with credit in H P 52A or PHED 62B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
9 hours laboratory. (108 hours total per quarter.)
Hands-on experience in athletic emergency care, athletic injury prevention, therapeutic treatment, and rehabilitation of athletic injuries in the on-campus Athletic Treatment Center. Observation of orthopedic surgical procedures with the permission of the team physician is available.
FHGE: Non-GE Applicable  Transferable: CSU

### SPORTS MEDICINE III
**KINS 62C**  CLINICAL EXPERIENCES IN SPORTS MEDICINE III  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: KINS 62B.
Advisory: Not open to students with credit in H P 52B or PHED 62C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
9 hours laboratory. (108 hours total per quarter.)
Hands-on experience in emergency care, injury prevention, treatment and rehabilitation of athletic injuries in the on-campus Athletic Treatment Center. Off-campus athletic training facilities and outpatient physical therapy clinics may also be utilized for the internship. Observation of orthopedic surgical procedures with the permission of the team physician is available.
FHGE: Non-GE Applicable  Transferable: CSU

### SPORTS MEDICINE IV
**KINS 62D**  CLINICAL EXPERIENCES IN SPORTS MEDICINE IV  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: KINS 62C.
Advisory: Not open to students with credit in PHED 62D.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
9 hours laboratory. (108 hours total per quarter.)
Hands-on experience in emergency care, injury prevention, treatment and rehabilitation of athletic injuries in the on-campus Athletic Treatment Center. Off-campus athletic training facilities and outpatient physical therapy clinics may be utilized for the internship. Observation of orthopedic surgical procedures with the permission of the team physician is available.
FHGE: Non-GE Applicable  Transferable: CSU

### SPORTS MEDICINE V
**KINS 62E**  CLINICAL EXPERIENCES IN SPORTS MEDICINE V  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: KINS 62D.
Advisory: Not open to students with credit in PHED 62E.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
9 hours laboratory. (108 hours total per quarter.)
Advanced experience in athletic emergency care, athletic injury prevention, therapeutic treatment, and rehabilitation of athletic injuries. Observation of orthopedic surgeries, assisting in physical therapy clinics or other related allied health settings complement the on-campus Athletic Treatment Center.
FHGE: Non-GE Applicable  Transferable: CSU

### KINESIOLOGY
**KINS 70R**  INDEPENDENT STUDY IN KINESIOLOGY  1 Unit
**KINS 71R**  2 Units
**KINS 72R**  3 Units
**KINS 73R**  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: KINS 62C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Kinesiology beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU
FHGE: Non-GE Applicable  Transferable: CSU

TUTOR TRAINING I 1 Unit

Degree & Credit Status: Degree-applicable credit course
Advisory: An earned "A" or "B+" grade with instructor recommendation in one of the following courses: ENGL 1A, 1AH, 1B, 1BH, 1C, 1CH, 1S & 1T, ESSL 125; not open to students with credit in L A 111A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)

Training in team leading skills necessary for tutoring, including study skills, college policies, professionalism, ethics, and role modeling of successful student behavior. Techniques of subject-specific tutoring skills. Practice of these skills through sample student work and, when applicable, content-specific suggestions from the tutee's instructor. Ideal for students intending to tutor the first time in English, ESSL, or other reading and/or composition based courses.

FHGE: Non-GE Applicable  Transferable: CSU

TUTOR TRAINING II 1 Unit

Degree & Credit Status: Degree-applicable credit course
Prerequisite: L A 61A.
Advisory: An earned "A" or "B+" grade with instructor recommendation in one of the following courses: ENGL 1A, 1AH, 1B, 1BH, 1C, 1CH, 1S & 1T, ESSL 125; not open to students with credit in L A 111B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)

Advanced training in team leading skills necessary for tutoring. Students will be asked to engage in advanced reflections on tutoring and advanced level critique of one’s own and other tutoring processes. Techniques of subject specific tutoring skills with attention given to diverse learning styles. Practice of these skills through sample student work and instructor assignments and, when applicable, content-specific suggestions from the tutee’s instructor. Ideal for students intending to tutor for the second time.

FHGE: Non-GE Applicable  Transferable: CSU

LEARNING IN NEW MEDIA CLASSROOMS

Business and Social Sciences
650.949.7498 krauseinnovationcenter.org/

LINC 50 TECHNOLOGY IN THE K-12 1 Unit
CLASSROOM I

Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 255S; students may enroll in LINC 50 or 50B, but not both, for credit.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)

Intended for educators, this hands-on overview course addresses the effective integration of technologies for teaching and learning within any standards based curriculum. Students explore the cycle of technology learning; review the issues of technology in schools; discuss the role of technology savvy teachers; analyze online resources, tools, and applications; use online collaboration tools for class communication; evaluate audio-visual and multimedia hardware for classrooms; investigate mobile devices and software; and explore interactive whiteboards. Emphasis is given to creating student-centered projects or activities using appropriate educational technologies.

FHGE: Non-GE Applicable  Transferable: CSU

LINC 50A TECHNOLOGY IN THE K-12 .5 Units
CLASSROOM II

Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 255S.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)

An introductory course about educational hardware technology in the classroom. Intended for educators, this hands-on course demonstrates integration of hardware technologies such as document cameras, interactive white boards, student response systems, iPads, mobile phones, etc., for teaching and learning with any standards based curriculum. Emphasis is given to creating student-centered activities using appropriate educational hardware technologies.

FHGE: Non-GE Applicable  Transferable: CSU

LINC 50B TECHNOLOGY IN THE K-12 .5 Units
CLASSROOM III

Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; fundamental understanding of content topics in LINC 50A; not open to students with credit in LINC 255T; students may enroll in LINC 50 or 50B, but not both, for credit.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)

Deepens the student’s knowledge of topics covered in LINC 50A focusing on computer and online-based software technology in the classroom. Intended for educators, this course examines the effective integration of software technologies such as word processing, presentation, spreadsheet, online resources, online collaboration tools, etc., used for teaching and learning. Emphasis is given to creating student-centered activities using appropriate educational software technologies.

FHGE: Non-GE Applicable  Transferable: CSU
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Description</th>
<th>Degree &amp; Credit Status</th>
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<tr>
<td>LINC 50F</td>
<td>INTEGRATING TECHNOLOGY</td>
<td>2</td>
<td>This intermediate course for middle grades (6th - 8th) mathematics educators promotes and encourages the use of technology in mathematics instruction to support and enhance mathematics teaching and learning and increases the use of technology for visualization and multiple representations of math concepts. Other topics include the assessment of technology enhanced math projects, California Mathematics Content Standards, state-approved mathematics textbooks, ISTE Technology Standards, California Technology Standards, and the emerging Common Core Standards.</td>
<td>Degree-applicable credit course</td>
<td>Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 225.</td>
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<tr>
<td>LINC 53</td>
<td>INTEGRATING TECHNOLOGY</td>
<td>1</td>
<td>Overview course for mathematics educators to promote and encourage the use of technology in mathematics instruction at any level to support and enhance mathematics teaching and learning and to increase the use of technology for visualization and multiple representations of math concepts. Other topics include the assessment of technology enhanced math projects, California Mathematics Content Standards, state-approved mathematics textbooks, ISTE Technology Standards, California Technology Standards, and the emerging Common Core Standards.</td>
<td>Degree-applicable credit course</td>
<td>Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 263.</td>
</tr>
<tr>
<td>LINC 53B</td>
<td>INTEGRATING TECHNOLOGY</td>
<td>.5</td>
<td>This intermediate course for middle grades (6th - 8th) mathematics educators promotes and encourages the use of technology in mathematics instruction to support and enhance mathematics teaching and learning and increases the use of technology for visualization and multiple representations of math concepts. Other topics include the assessment of technology enhanced math projects, California Mathematics Content Standards, state-approved mathematics textbooks, ISTE Technology Standards, California Technology Standards, and the emerging Common Core Standards.</td>
<td>Degree-applicable credit course</td>
<td>Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 263T.</td>
</tr>
<tr>
<td>LINC 57</td>
<td>DESIGNING LEARNER-CENTERED INSTRUCTION</td>
<td>1</td>
<td>Educators examine the learner-centered approach to teaching in order to create transformative experiences for students. Educators develop the skills and conceptual knowledge for instructional design and creating student-centered learning activities that meet Common Core and content standards. Topics addressed include how learning happens, the role of educational technologies in student engagement, and effective modifications to existing instructional material. Following the learner-centered classroom guidelines, educators will create a multidisciplinary unit of instruction that is aligned to teaching standards and include both formative and summative assessments.</td>
<td>Degree-applicable credit course</td>
<td>Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 224.</td>
</tr>
<tr>
<td>LINC 58</td>
<td>GLOBAL PROJECT-BASED LEARNING</td>
<td>2</td>
<td>This course demonstrates how to build an e-portfolio as an authentic assessment tool. Electronic portfolios can be used for student work as well as for teacher professional development. Reflective practice that deepens learning will be presented. Student e-portfolios will be examined and analyzed.</td>
<td>Degree-applicable credit course</td>
<td>Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 223.</td>
</tr>
</tbody>
</table>
LINC 59 INTEGRATING 21ST CENTURY SKILLS INTO INSTRUCTION 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Intended for educators at all levels (K-12, college) and trainers of any discipline to develop the knowledge, skills, and attitude necessary to create instructional experiences integrated with 21st Century skills, such as critical thinking, creativity and problem solving, collaboration, and communication. Participants will examine the skills that business and industry determine important for new employees to know in order to succeed in a 21st Century global economy. Participants determine the importance of integrating 21st Century skills into their courses, analyze their curriculum content and instructional strategies to determine which 21st Century skills they currently teach and which additional skills can be integrated. The final course project is a lesson, unit, or project that requires the participants’ students or trainees to use 21st Century skills.
FHGE: Non-GE Applicable Transferable: CSU

LINC 60K GAME-BASED LEARNING 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 243.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Intended for educators who want to explore computer-based and internet games that engage students in science, engineering, and other content learning. Participants will analyze existing games for their educational value, create their own simple educational game and determine how students learn when they create a game. Participants will use a systematic method of game design to identify goals, develop a game, and evaluate the learning outcomes.
FHGE: Non-GE Applicable Transferable: CSU

LINC 62 CLOUD-BASED WORD PROCESSING TOOLS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 270.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Provides hands-on experience using cloud-based word processing programs like Microsoft Word, Google Docs and Apple Pages. Topics include: formatting techniques for reports, letters, or creative projects (e.g., flyers, brochures, information graphics); editing tools; using styles; creating section breaks; inserting text boxes, graphic objects, and multimedia; creating tables; working with headers and footers; and merging documents; using Track Changes for collaboration and other advanced features.
FHGE: Non-GE Applicable Transferable: CSU

LINC 63 CLOUD-BASED DATA ANALYSIS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems and basic skills and knowledge of internet technologies, such as using web browsing, email, bookmarking, searching and downloading; not open to students with credit in LINC 269.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
This course covers a variety of powerful cloud-based data analysis tools (e.g., Microsoft Excel, Google Sheets, and Apple Numbers) that can support educators, students, and business professionals in myriad tasks, including analyzing performance data, tracking expenditures, budget development, meeting planning, workflow processes, and database management.
FHGE: Non-GE Applicable Transferable: CSU

LINC 64 SLIDE PRESENTATION DESIGN 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 246.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Develop the knowledge and skills to create effective and visually appealing slide presentations. This hands-on course uses software such as Keynote, PowerPoint, Prezi, or Google Presentations; however, primary emphasis is placed on applying visual literacy concepts. Additional topics include typography, inserting audio, applying animation/transition effects, and applying good presentation design.
FHGE: Non-GE Applicable Transferable: CSU

LINC 66 INTRODUCTION TO THE INTERNET 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 206; students may enroll in LINC 66 or 66B, but not both, for credit.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
This overview course explores the educational, personal, professional, and social benefits of the Internet. Participants will develop information literacy skills by examining current Internet trends, tools, and technologies for information, communication, and collaboration.
FHGE: Non-GE Applicable Transferable: CSU

LINC 66C SEARCHING & RESEARCHING THE INTERNET 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 208.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Intermediate course for those who use the Internet for personal research and in their work. Emphasizes using advanced search techniques that incorporate logical reasoning, critical thinking, essential questions, and inquiry-based learning to refine searches, maximize the advantages of different search engines, evaluate websites for credibility, understand the legitimacy of search results, and use search findings ethically.
FHGE: Non-GE Applicable Transferable: CSU
LINC 66E  CLOUD-BASED PUBLISHING TOOLS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 283S.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
This introductory, hands-on learning class will compare the relative advantages and disadvantages of using a variety of cloud-based publishing tools for the purpose of group collaboration, an e-portfolio, a social networking space, or information sharing. Emphasis is given to creating a basic collaboration space for education, business, or personal applications.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 67  DESIGNED WEB-BASED LEARNING PROJECTS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Creation of online projects that promote inquiry-based student learning and effective use of Web 2.0 tools for research. Participants will generate ideas for projects, like Webquests or virtual tours, and develop their own project with focus and purpose. Participants will align their project with the Common Core State Standards requiring students to synthesize information by completing a challenge task.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 68B  GOOGLE DOCS .5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 270S.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)
An introduction to Google Docs, the free online word processing application in the Google office suite, which allows people to collaborate on a single version of a document. Google Docs is a powerful, easy to use application for teachers, students, groups, and organizations that want to share and collaborate with documents online. Participants will have hands-on experience creating, formatting, editing, saving, sharing, printing documents, inserting graphics, composing tables, and working collaboratively on a single document.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 70  WEB PAGE DESIGN OVERVIEW 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 200; students may enroll in LINC 70 or 70B, but not both, for credit.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Hands-on overview of how to design and create web pages using current online authoring tools, such as Google Sites, Wix, Weebly, or others. Advantages of different online web authoring tools will be analyzed. Techniques covered include building multiple pages; adding images, widgets, videos, banners, social media, calendars, and other features to create a neat, professional looking website. No knowledge of HTML is required.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 70B  WEB PAGE DESIGN II 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 211; students may enroll in LINC 70 or 70B, but not both, for credit.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Covers more advanced topics of online web authoring tools or services, such as good vs poor website design, building tables, using styles and addressing accessibility. Appropriate for application in educational, social, or business environments.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 72B  ADOBE INDESIGN OVERVIEW 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; students may enroll in LINC 72B or 72D, but not both, for credit; not open to students with credit in LINC 234.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
For anyone interested in print or Web-based publishing. Adobe InDesign creates page layouts for multi-page brochures, tri-folds, flyers, newsletters, books, websites, and Web-based publications with a professional quality. In this hands-on, overview course, students work with images; use guides and grids; set up master sheets and styles.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 73  ADOBE PHOTOSHOP OVERVIEW 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; students may enroll in LINC 73 or 73B, but not both, for credit; not open to students with credit in LINC 230.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Explore digital imaging with hands-on experiences that integrate image media with teaching and learning. Emphasis is given to creating student-centered projects or activities using Photoshop. Learn to enhance image color and contrast, touch-up photos, create collages that tell stories, paint with the paint tools, create layouts with text, apply filters and special effects, automate work-flow. Learn to communicate with compelling layouts.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 73H  ADOBE ILLUSTRATOR OVERVIEW 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; students may enroll in LINC 73H or 73J, but not both, for credit; not open to students with credit in LINC 233.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Adobe Illustrator creates drawings, illustrations, and images for print or Web. Use vector graphics; draw objects, stroke outlines and pattern fills; work with brushes, gradients, color blends; design type; and develop graphs. Learn basic procedures of vector drawing to create moderately complex illustrations that can be transferred to collateral design.
FHGE: Non-GE Applicable  Transferable: CSU
This course provides hands-on experience with the basic elements and tools of Adobe Illustrator, a software drawing tool, to produce simple vector illustrations. Includes methods of illustration that contribute to digital storytelling.

FHGE: Non-GE Applicable  Transferable: CSU

Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 233S.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)

This introductory course in instructional design and technology is for students, teachers, educators, and trainers who want to know how to create technology-based educational or training materials and resources for school, college, or business settings. Students will develop foundational knowledge and skills in systematic design processes that guide writing learning objectives, developing learning activities, applying best practices for using technology in instructional settings, and assessing learning outcomes. This is the first course in the Instructional Design & Technology program sequence.

FHGE: Non-GE Applicable  Transferable: CSU

Degree & Credit Status: Degree-applicable credit course
Advisory: Basic skills using standard computer systems and internet-based technologies.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)

This instructional design and technology course builds on the coursework of LINC 75A and focuses on the specific strategies for using technology in the education or training environment. Students develop instructional plans that use technology to meet the needs of a variety of learners; plan for effective use and management of technology for teaching and learning (i.e., laptop carts, mobile devices, Bring Your Own Device [BYOD], classroom audio-visual, online technologies and learning systems); and learn to manage instructional design projects. This course is part of the Instructional Design & Technology program sequence.

FHGE: Non-GE Applicable  Transferable: CSU

Degree & Credit Status: Degree-applicable credit course
Advisory: Basic skills using standard computer systems and internet-based technologies.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)

This course advances the knowledge of instructional design and technology taught in LINC 75A and LINC 75B while focusing on the unique design challenges and delivery options of online education or training. Students apply the methods of instruction with web-based technologies to design online learning courses, lessons, activities, and resources. Special emphasis is provided for creating multimedia resources (e.g., screen casting and instructional videos) and for designing online learning with video conferencing, threaded discussions, shared documents and online collaboration used in learning management systems. This course is part of the Instructional Design & Technology program sequence.

FHGE: Non-GE Applicable  Transferable: CSU

Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)

Students learn an overview of the design thinking methodology and its applications in education, business, industry and government. Focus is on introducing all aspects of the design cycle through inquiry-based facilitation and engaging immersive activities to develop understanding of the design thinking process.

FHGE: Non-GE Applicable  Transferable: CSU

Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)

Students delve deeper into design thinking to hone skills in facilitating the design thinking methodology when working in groups. Special attention is given to using the design thinking process for exploring how to bring positive disruptions and shifts in mindsets in order to arrive at innovative solutions.

FHGE: Non-GE Applicable  Transferable: CSU

Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)

Student participants from community, business, and education practice design thinking, a process that innovators, designers, policy makers, and educators are using to develop innovative and collaborative solutions to real world challenges. Participants will use the design thinking process as they build low resolution prototype models using both physical materials and a 3-D rendering program. Focus is on working individually and in teams, to hone skills of defining problems, collecting information, brainstorming and developing solutions.

FHGE: Non-GE Applicable  Transferable: CSU
FHGE: Non-GE Applicable  Transferable: CSU

LINC 77C  DESIGN THINKING FOR TEACHERS  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Student-participants who are familiar with the design thinking process, originally created by the d.school at Stanford University, will develop innovative and collaborative solutions to real world challenges in education. Focus is on developing a project that would be easy to implement in a school environment and allow for immediate engagement in the design process by making and doing.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 77D  DESIGN THINKING FOR CHALLENGES  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Student-participants who are familiar with the design thinking process, originally created by the d.school at Stanford University, will work in groups to select a real world challenge project and create solutions. Focus is on working through the design thinking principles to develop and present prototype solutions for challenges that emerge from a wide variety of areas.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 78A  COMPUTATIONAL THINKING FOR EDUCATORS  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Computational thinking is an essential problem solving skill in the digital age. This course, which is designed for educators, provides instruction in components of computational thinking, including: data analysis, abstraction, and algorithms. A variety of tools will be used to demonstrate coding and debugging experiences. Students will learn how to add computational thinking concepts into many content areas with a special emphasis on related NGSS and Common Core Math computational thinking practices, including opportunities to integrate these concepts into instructional practices in multiple and interdisciplinary areas within education.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 78B  BLOCK BASED CODING CONCEPTS  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
This course, designed for educators, provides the foundational computer science concepts using block based computer programming languages, such as Scratch, Blockly, Logo and others. These concepts illustrate the use of scripts, loops, and arrays in computer science, without the need to type or master the syntax of higher level programming languages.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 78C  PROJECT BASED TECHNOLOGY PROJECTS  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Intended for educators and others, this course will provide opportunities to integrate technology into project based learning. Use of Arduinos, Raspberry Pi, Microbit or other micro-controllers, and control of these devices using code in text based languages, such as C or Python, to enhance project based learning will be covered.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 79  MULTIMEDIA PROJECT PRODUCTION  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; familiarity with multimedia software.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
This hands-on, project production course demonstrates how to integrate online multimedia production tools and resources (music, audio, images, video, animation) to produce a variety of artistic or communicative media for use in education, business and personal applications.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 80  MULTIMEDIA OVERVIEW  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 251.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
An overview of multimedia software and hardware and the multimedia production process. Designed for trainers, educators, and anyone interested in multimedia, the course features hands-on learning with computer-based or internet software authoring tools to design and produce a multimedia project or presentation that integrates text, graphics, animation, sound, and digital video for educational, business, or entertainment purposes.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 80A  MULTIMEDIA IN THE CLASSROOM I  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 252.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Explores the pedagogy and computer-based software tools used to effectively design and manage multimedia in the learning process. Best design practices and hands-on experience with computer-based multimedia authoring tools will be used to produce a student-centered project, such as an audio book, animation, musical slideshow, video composition, or interactive presentation. Course content is appropriate for students, entrepreneurs, media designers, and educators.
FHGE: Non-GE Applicable  Transferable: CSU
LINC 80B  MULTIMEDIA IN THE CLASSROOM II .5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 257S.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)
Explores pedagogy and online multimedia tools for educators who want to use multimedia production for student-centered learning. Features hands-on experience with internet multimedia authoring tools and resources for audio, video, music, animation, and images, to design and produce a student-centered project.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 81  USING DIGITAL IMAGES 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 257.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
An introduction to digital image acquisition, manipulation, use, and storage. Students will learn to find, edit, and use images in any software application for educational, business, or social purposes. Online image storage and sharing services will be evaluated. Students produce a gallery of images based on themes or categories.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 81A  USING DIGITAL IMAGES I .5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 257S.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)
Effectively use digital images for teaching and learning or training with emphasis on free, online image resources and editing tools. Topics include finding images, criteria for choosing images, editing tools and techniques, and importing into any application. Students will design and develop a project using images such as collatorial materials, presentations, print publications, photo galleries, web pages, video, slideshow, or animation.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 82A  INTRODUCTION TO DESIGNING INSTRUCTIONAL TECHNOLOGY PROJECTS 3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic skills using standard computer systems and internet-based technologies.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
This introductory course in designing and developing instructional projects is for students, educators, and trainers interested in the planning of instructional design and technology projects. Students will acquire the knowledge and technology skills needed to lead the design, creation, and iteration of instructional materials, specifically, basic project management, applying instructional technology principles, and using rapid prototyping models to efficiently design, make, and evaluate instructional projects for education or business learning contexts. This course is part of the Instructional Design & Technology program sequence.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 82B  DEVELOPING INSTRUCTIONAL MATERIALS 3 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: It is advised, but not required that students have the background knowledge and skill taught in LINC 82A; basic skills using standard computer systems and internet-based technologies.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
This instructional design and development course builds on the coursework of LINC 82A and focuses on refining the skills needed for making digital media for education or business learning contexts. Students interested in the study of instructional design will rapidly design, develop, and evaluate presentations, infographics, posters, digital resources, multimedia, and web sites for particular learning styles. Special emphasis is given for using collaborative tools to facilitate and manage group projects. This course is part of the Instructional Design & Technology program sequence.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 82C  CREATING INTERACTIVE MEDIA FOR INSTRUCTION 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: LINC 82A or 82B.
Advisory: Basic skills using standard computer systems and internet-based technologies.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
This advanced course in creating interactive media for instruction continues the coursework of LINC 82A and LINC 82B and provides the depth of skills and knowledge needed for making online learning media that includes interactive components, such as instructional video, multimedia, game-based learning, graphical user interface design, interactive tutorials, embedding collaborative elements in web sites or learning management systems. Students interested in the study of instructional design and technology will develop a project for either education or business learning contexts. This course is part of the Instructional Design & Technology program sequence.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 83A  ADOBE PREMIERE 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Familiarity with PC or Mac; scanning photos; using a digital still and digital video camera; not open to students with credit in LINC 81CS.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Adobe Premiere provides students with skills necessary to create digital movies. Projects are standards-based and appropriate for classroom use. Students will include text, sound and the "Ken Burns Effect" as well as other special effects in their movies.
FHGE: Non-GE Applicable  Transferable: CSU

LINC 83C  IMOVIE 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Familiarity with Macintosh computers or iOS devices (iPhone/iPad); not open to students with credit in LINC 241.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
This course, which is designed for educators and others, will provide the basics of video production using the software application imovie, which is available on both Macintosh computers and iOS (iPad/iPhone) devices. Students will produce a finished/edited video using video and audio content recorded from a variety of digital devices: tablets, camcorders, smart phones, etc. The finished video should contain all or some of the following video production/editing techniques: background audio, "Ken Burns Effect," voice-over narrations, sound effects, transitions and titles.
FHGE: Non-GE Applicable  Transferable: CSU
LINC 83F  INTRODUCTION TO DIGITAL VIDEO EDITING
1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 244.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Introductory course covers the skills to create short, digital movies for the Web or computer playback using low-cost, internet-based, or free software. Course topics including finding existing video, creating video slideshows, making titles, adding voiceover or music, and creating animation effects. Class projects are designed for use in education, business, and personal applications.
FHGE: Non-GE Applicable Transferable: CSU

LINC 84A  3-D DESIGN CONCEPTS
2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Intended for educators and others, this course will provide the basics to move designs from concepts to finished learning projects. Throughout the course, there will be a focus on application of finished products to meet a specific need or learning outcome. Within the course, troubleshooting and basic maintenance concepts will be covered to allow educators to operate and manage 3-D printers in their schools.
FHGE: Non-GE Applicable Transferable: CSU

LINC 84B  3-D DESIGN & FABRICATION
2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Experience with internet software tools, browsers, hyperlinks, online media resources, and basic skills using a computer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Intended for educators and others, this course will provide the fundamentals of 3-D design and fabrication concepts. The use of basic design software and online libraries will be used to assist in developing and designing 3-D projects for learning projects by students in grades K-12, business, industry, and/or governmental. An emphasis will be placed on design concepts to meet a specific educational/instructional/project need.
FHGE: Non-GE Applicable Transferable: CSU

LINC 86A  VIDEO PODCASTING I
.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)
Introductory course on video podcast production. Using free online or industry-standard editing software, participants will create a basic video podcast or screencast that is for instructional, informative, or persuasive purposes in education, professional, or personal contexts.
FHGE: Non-GE Applicable Transferable: CSU

LINC 86B  SCREENCASTING II
.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; fundamental understanding of content topics in LINC 86A; students may enroll in LINC 86 or 86B, but not both, for credit.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)
Continuation of LINC 86A, introducing more advanced skills and techniques for creating screencast tutorials that explain and demonstrate "how-to" topics. Uses free (e.g., Screencast-o-Matic or Screencastify) or industry-standard (e.g., Garageband) software. Students will create a "how-to" tutorial-style podcast of an instructional or training challenge.
FHGE: Non-GE Applicable Transferable: CSU

LINC 87  SEMINAR IN TEACHING WITH EDUCATIONAL TECHNOLOGY
5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
This seminar is for educators at all levels to develop student-centered learning projects and teaching practices; apply practical educational technology tools and resources; and participate in a collaborative professional development experience. Participants learn to use innovative technologies in their own curriculum content area and best practices for teaching and learning that positively impacts student achievement. Topics include 21st Century skills for teaching and learning, visual literacy, media literacy, free online tools and resources for education, educational software training, open education resources, professional learning networks, integrating technology into the curriculum, integrating science and mathematics into any curriculum, assessment strategies for complex learning outcomes, and student-centered learning.
FHGE: Non-GE Applicable Transferable: CSU

LINC 88  INTRODUCTION TO COMPUTER OPERATING SYSTEMS
4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems and basic skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching, and downloading.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introductory course covers computer operating systems such as Microsoft Windows 7, Windows 10 and Linux. Students learn to install, configure, and administer a desktop operating system, automate operating system installation, set up and manage user accounts, and configure local file systems. Configure and troubleshoot both local and network printers, manage and troubleshoot access to shared folders, and recover from system failures.
FHGE: Non-GE Applicable Transferable: CSU
LINC 89 INTRODUCTION TO MICROSOFT WINDOWS SERVERS
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introductory course covers the fundamentals of Microsoft Windows server infrastructure, setup and administration. Topics include managing file systems (including Active Directory Domain Services [AD DS]), networking services, Hyper-V configuration, devices, user accounts, backups, and basic security.
FHGE: Non-GE Applicable Transferable: CSU

LINC 90A WEBINARS
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems and basic skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 290.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
For educators and trainers to develop basic skills in creating synchronous or asynchronous "webinars," web-based seminars. This course will use software tools and systems, such as CCC Confer, Adobe Connect, WebEx, or others. Students will incorporate video, media, slide presentations and Internet resources to create short webinar content for educational or training applications.
FHGE: Non-GE Applicable Transferable: CSU

LINC 90B OPEN EDUCATION RESOURCES
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems and basic skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 215.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Overview of Open Educational Resources (OER) and the use of free public domain materials for teaching and learning. Aims to build participant’s knowledge and skills to find, adapt, repurpose and create accessible OER for use in education and training environments. Course topics include OER terminology, OER quality, copyright and fair use issues, sources and repositories of public domain materials in various disciplines, technical issues regarding accessibility, and uses of Creative Commons. Participants will explore and analyze: OER tools and standards available to develop, organize and disseminate content; public domain learning materials; searching techniques for identifying public domain learning materials; professional collaboration strategies; and criteria for assessing the suitability of public domain learning materials for use various disciplines. Participants will either create a lesson, activity, or training module that incorporates OER or create an OER for an identified purpose.
FHGE: Non-GE Applicable Transferable: CSU

LINC 90C ONLINE COLLABORATION TOOLS
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 214.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Features online collaboration tools for educational, business, or personal use. Explore different collaborative technologies and shared documents using the Internet with emphasis on how these tools can be integrated with curriculum and student projects; on more effective communication and collaboration for all participants; and on how these tools can be used for planning and evaluating projects.
FHGE: Non-GE Applicable Transferable: CSU

LINC 91A INTRODUCTION TO ASSESSING INSTRUCTIONAL TECHNOLOGY
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic skills using standard computer systems and internet-based technologies.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
This introductory course in assessing instructional technologies is for students, educators, and trainers interested in instructional design and technology. Students develop critical thinking skills and use evaluation processes, resources, and instruments to select and evaluate instructional materials, technologies, resources, and programs that meet specific learning outcomes for educational and training contexts. Coursework includes using technology to conduct survey research and basic data analysis. This course is part of the Instructional Design & Technology program sequence.
FHGE: Non-GE Applicable Transferable: CSU

LINC 91B EVALUATING TECHNOLOGY-BASED LEARNING OUTCOMES
Degree & Credit Status: Degree-applicable credit course
Advisory: It is advised, but not required that students have the background knowledge and skill taught in LINC 91A; basic skills using standard computer systems and internet-based technologies.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
This instructional design and technology course builds on the coursework of LINC 91A and focuses on evaluating learning outcomes in educational and business training contexts. Students will design and develop technology-based authentic and performance-based assessments, rubrics, needs assessment plans, learner analysis instruments, adaptive testing, and surveys. Coursework includes managing data collection, analyzing results, and reporting findings. This course is part of the Instructional Design & Technology program sequence.
FHGE: Non-GE Applicable Transferable: CSU
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Prerequisites</th>
<th>Advisory</th>
<th>Grade Type</th>
<th>Transferable:</th>
<th>FHGE: Non-GE Applicable</th>
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<tr>
<td>LINC 91C</td>
<td>EVALUATING INSTRUCTIONAL PROGRAMS</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Prerequisite: LINC 91A or 91B.</td>
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<td>Letter Grade or Pass/No Pass</td>
<td>CSU</td>
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<tr>
<td>LINC 92</td>
<td>SEMINAR IN INSTRUCTIONAL DESIGN &amp; TECHNOLOGY</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>Prerequisites: Completion of LINC 75A and (LINC 75B or 75C); LINC 82A and (LINC 82B or 82C); and LINC 91A and (LINC 91B or 91C).</td>
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<td>Letter Grade or Pass/No Pass</td>
<td>CSU</td>
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<tr>
<td>LINC 93B</td>
<td>ASSISTIVE TECHNOLOGY &amp; UNIVERSAL ACCESS</td>
<td>1</td>
<td>Degree-applicable credit course</td>
<td>Advisory: Familiarity with PC or Mac; basic internet skills; not open to students with credit in LINC 221.</td>
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<td>Letter Grade or Pass/No Pass</td>
<td>CSU</td>
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<td>LINC 94</td>
<td>INTRODUCTION TO COMPUTER NETWORKS</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems and basic skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching and downloading.</td>
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<td>Letter Grade or Pass/No Pass</td>
<td>CSU</td>
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<tr>
<td>LINC 95B</td>
<td>TECHNOLOGY ETHICS &amp; EDUCATIONAL LAW</td>
<td>1</td>
<td>Degree-applicable credit course</td>
<td>Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 220.</td>
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<td>Letter Grade or Pass/No Pass</td>
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<tr>
<td>LINC 95C</td>
<td>ASSESSMENT STRATEGIES FOR TECHNOLOGY INTEGRATION</td>
<td>1</td>
<td>Degree-applicable credit course</td>
<td>Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 260.</td>
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<td>Letter Grade or Pass/No Pass</td>
<td>CSU</td>
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<tr>
<td>LINC 96B</td>
<td>HANDHELD DIGITAL MEDIA DEVICES I</td>
<td>.5</td>
<td>Degree-applicable credit course</td>
<td>Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 292A.</td>
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<td>Letter Grade or Pass/No Pass</td>
<td>CSU</td>
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FHGE: Non-GE Applicable Transferable: CSU
LINC 97          IPADS IN EDUCATION         .5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Appropriate skills and abilities with mobile computer systems and internet technologies.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)
Tablet computer technology is having greater influence in education and impacting student learning with mobile, rich media applications. Explore using the Apple iPad in every level of education; analyze changes mobile computing brings to the teaching and learning environment; evaluate applications relevant for academic disciplines and that reflect the Common Core State Standards. Provides practice in using iPads in a classroom setting and for developing instructional resources and learning aids.
FHGE: Non-GE Applicable Transferable: CSU

LINC 97A         IPADS FOR TEACHING & LEARNING 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic technology skills and knowledge of iPad and Mac IOS systems; familiarity using web browsers, email, bookmarking, searching, and downloading.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Participants who are familiar with basic iPad use will integrate iPads into the teaching and learning process. Find, review and select applications and resources to create learning experiences aligned with Common Core State Standards. Use iPads for evaluation and assessment of student mastery. Develop course materials for student-centered activities. Build a virtual library of online resources, tips, and tricks.
FHGE: Non-GE Applicable Transferable: CSU

LINC 97B         TABLET COMPUTERS & MEDIA CREATION 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic skills in using tablet computers, such as iPads or Android devices, to manage applications, system resources, and connect to the internet.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Participants create and publish a wide variety of media using tablet computers (iPads or Android devices) and compatible hardware accessories. Focus on free or low-cost software for video, audio, animation, screen capture, and multimedia creation. Participants explore digital resources and create a media project.
FHGE: Non-GE Applicable Transferable: CSU

LINC 98          TEACHING & LEARNING IN THE DIGITAL AGE 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 228; students may enroll in LINC 98 or 98B, but not both, for credit.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Overview course for those interested in developing and integrating educational technology into the classroom or training environment. Students will analyze learner characteristics; analyze the role of technology in student-centered learning environments; create a design plan for a technology-enhanced learning lesson, project or activity; use collaborative online technologies to support group work and peer feedback; and develop evaluation methods for the course project.
FHGE: Non-GE Applicable Transferable: CSU

LINC 98A         TEACHING & LEARNING IN THE DIGITAL AGE I .5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 228.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)
Introduction to integrating educational technology in the classroom for those interested in using technology to effectively deliver curriculum content, engage in professional development, and efficiently manage the classroom or training environment (e.g., online grading, storage, communication with parents, etc.). Participants will examine and set up appropriate technology tools.
FHGE: Non-GE Applicable Transferable: CSU

LINC 98B         TEACHING & LEARNING IN THE DIGITAL AGE II .5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching and downloading; fundamental understanding of content topics in LINC 98A; not open to students with credit in LINC 228T; students may enroll in LINC 98 or 98B, but not both, for credit.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours lecture. This course meets 1 time per quarter. (6 hours total per quarter.)
An intermediate course in educational technology in the classroom, this course extends the topics in LINC 98A for educators, trainers, and instructional designers who want to develop student-centered lessons for the classroom or training environment. Focuses on collaborative software technologies that can be used for student group work and project sharing.
FHGE: Non-GE Applicable Transferable: CSU

LINC 401         BASIC MAKERSPACE SKILLS I 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Advisory: Basic computer skills and knowledge of operating systems; familiarity using web browsers, email, bookmarking, searching and downloading.
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
12 hours lecture total per quarter.
Introduces students and other individuals to the tools and skills used in Makerspaces. These skills include, but are not limited to: basic Makerspace safety, basic tool safety, basic prototyping. Students will be able to learn independently and in groups to enhance their personal skills in using tools safely and effectively to create and build items for personal and educational uses. After completing the two-course sequence of LINC 401 and 402, students will receive training and badges to safely use each tool at a beginning level. Students will be more prepared for entering STEM and Maker career paths in education, community centers, and libraries. This course cannot be taken for credit.
FHGE: Non-GE Applicable Transferable: None
LINC 402 BASIC MAKERSPACE SKILLS II 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Advisory: Basic computer skills and knowledge of operating systems; familiarity using web browsers, email, bookmarking, searching and downloading.
Grade Type: Non-credit course that receives no grade
12 hours lecture total per quarter.
Introduces students and other individuals to the tools and skills used in Makerspaces. These skills include, but are not limited to: basic machine safety, basic computing concepts, basic electronics. Students will be able to learn independently and in groups to enhance their personal skills in using tools safely and effectively to create and build items for personal and educational uses. After completing the two-course sequence of LINC 401 and 402, students will receive badges for each machine/tool in safety and basic use. Students will be more prepared for entering STEM and Maker career paths in education, community centers, and libraries. This course cannot be taken for credit.
FHGE: Non-GE Applicable  Transferable: None

LINC 405 BEGINNING TECHNOLOGY SKILLS 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
12 hours lecture total per quarter.
This noncredit course introduces students and other individuals to basic technology skills. These skills include, but are not limited to: basic word processing skills; basic spreadsheet skills; basic management and organization of files; saving, downloading, and uploading files; basic email use; mouse/navigation skills; internet search skills. Students will be able to learn independently or in small groups to enhance their personal skills in using a computer for basic digital tasks needed to begin Foothill College coursework.
FHGE: Non-GE Applicable  Transferable: None

LIBRARY SCIENCE

Language Arts
650.949.7608  foothill.edu/la/

LIBR 10  INTRODUCTION TO COLLEGE RESEARCH 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Familiarity with Macs or PCs; not open to students with credit in LIBR 10H or 71.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Intended for students writing a research paper in another class. Strategies and methods to identify a research topic and then find, evaluate, and use information in an ethical way. Interdisciplinary application of concepts, often covering multicultural topics.
FHGE: Lifelong Understanding  Transferable: CSU/UC

LIBR 10H HONORS INTRODUCTION TO COLLEGE RESEARCH 1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Familiarity with Macs or PCs; not open to students with credit in LIBR 10 or 71.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
This honors-enhanced course is designed to introduce students to college level research. Students will develop critical thinking to identify a research topic and then find, evaluate, and use information in an ethical way. Interdisciplinary application of concepts, often covering multicultural topics. This course is of special value to those students intending to transfer to a four-year institution (CSU/UC).
FHGE: Lifelong Understanding  Transferable: CSU/UC

MATHEMATICS

Physical Sciences, Mathematics & Engineering
650.949.7259  foothill.edu/math/

MATH 1A CALCUULS 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 48C or equivalent.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in MATH 1AH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to differential calculus, including limits, derivatives and their applications to curve-sketching, families of functions, and optimization.
FHGE: Communication & Analytical Thinking  Transferable: CSU/UC

MATH 1AH HONORS CALCULUS I 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: MATH 48C or equivalent; Honors Institute participant.
Corequisite: MATH 1AHP.
Advisory: Not open to students with credit in MATH 1A.
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to differential calculus, including limits, derivatives and their applications to curve-sketching, families of functions, and optimization. Honors work emphasizes a deeper study of differential calculus via the study of proofs using analytic techniques, real-world problems, and special applied projects.
FHGE: Communication & Analytical Thinking  Transferable: CSU/UC
MATH 1AH  HONORS CALCULUS I SEMINAR  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Corequisite: MATH IAH.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
An honors seminar linked to MATH 1AH. In this course, students will explore a multitude of advanced problems from the calculus I honors course, including proofs of limit laws, differentiation rules, and corresponding theorems concerning the behavior of differentiable functions. As the calculus I honors course will require students to submit typed technical solutions to applied problems, this seminar will support students in learning how to use mathematical typesetting software. Best practices for mathematical writing will also be discussed.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MATH 1B  CALCULUS  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 1A or IAH.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESSL 125 & ESSL 249; not open to students with credit in MATH 1B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to integral calculus including definite and indefinite integrals, the first and second Fundamental Theorems and their applications to geometry, physics, and the solution of elementary differential equations.
FHGE: Communication & Analytical Thinking  Transferable: CSU/UC

MATH 1BH  HONORS CALCULUS II  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: MATH 1A or IAH; Honors Institute participant.
Corequisite: MATH 1BHP.
Advisory: Not open to students with credit in MATH 1B.
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to integral calculus, including definite and indefinite integrals, the first and second Fundamental Theorems of Calculus and their applications to geometry, physics, and solutions to elementary differential equations. Honors work emphasizes more in-depth analysis of real-world problems and the theory through proofs using analysis techniques.
FHGE: Communication & Analytical Thinking  Transferable: CSU/UC

MATH 1BHP  HONORS CALCULUS II SEMINAR  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Corequisite: MATH 1BH.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
An honors seminar for MATH 1BH. In this course, students will explore a multitude of advanced problems from the calculus II honors course, including proofs of the fundamental theorems, properties of integrals, integration techniques, and various other theorems and propositions concerning the behavior of integrable functions. As the calculus II honors course will require students to submit typed technical solutions to applied problems, this lab will support students in learning how to use mathematical typesetting software. Best practices for mathematical writing will also be discussed.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MATH 1C  CALCULUS  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 1B or 1BH.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESSL 125 & ESSL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to functions of more than one variable, including vectors, partial differentiation, the gradient, contour diagrams and optimization. Additional topics include infinite series, convergence and Taylor series.
FHGE: Communication & Analytical Thinking  Transferable: CSU/UC

MATH 1D  CALCULUS  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 1C.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESSL 125 & ESSL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to integration of functions of more than one variable, including double, triple, flux and line integrals. Additional topics include polar, cylindrical and spherical coordinates, parameterization, vector fields, path-independence, divergence and curl.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MATH 2A  DIFFERENTIAL EQUATIONS  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 1C.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESSL 125 & ESSL 249; not open to students with credit in MATH 12A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Differential equations and selected topics of mathematical analysis.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MATH 2B  LINEAR ALGEBRA  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 1C.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESSL 125 & ESSL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
A first course in Linear Algebra, including systems of linear equations, matrices, linear transformations, determinants, abstract vector spaces and subspaces, eigenvalues and eigenvectors, inner product spaces and orthogonality, and selected applications of these topics.
FHGE: Non-GE Applicable  Transferable: CSU/UC
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>MATH 10</td>
<td>ELEMENTARY STATISTICS</td>
<td>5</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
<td>Prerequisite: MATH 105 or equivalent.</td>
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<td>Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process or completion of ESLL 125 &amp; ESLL 249; UC will grant transfer credit for a maximum of one course from the following: PSYC 7, SOC 7, MATH 10 or 17; students are strongly encouraged to meet with a counselor for appropriate course selection.</td>
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<td>An introduction to modern methods of descriptive statistics, including collection and presentation of data; measures of central tendency and dispersion; probability; sampling distributions; hypothesis testing and statistical inference; linear regression and correlation; analysis of variance; use of microcomputers for statistical calculations. Illustrations taken from the fields of business, economics, medicine, engineering, education, psychology, sociology, social sciences, life science, and health science.</td>
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<td>FHGE: Communication &amp; Analytical Thinking</td>
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<td>Transferable: CSU/UC</td>
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<td>MATH 12</td>
<td>CALCULUS FOR BUSINESS &amp; ECONOMICS</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Prerequisite: MATH 48A or equivalent.</td>
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<td>Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process or completion of ESLL 125 &amp; ESLL 249.</td>
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<td>Not Repeatable.</td>
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<td>5 hours lecture. (60 hours total per quarter.)</td>
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<td>A study of the techniques of differential and integral calculus, with an emphasis on the application of these techniques to problems in business and economics.</td>
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<td>Transferable: CSU/UC</td>
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<td>MATH 17</td>
<td>INTEGRATED STATISTICS II</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
<td>Prerequisite: MATH 217.</td>
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<td>Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process or completion of ESLL 125 &amp; ESLL 249; UC will grant transfer credit for a maximum of one course from the following: PSYC 7, SOC 7, MATH 10 or 17; students are strongly encouraged to meet with a counselor for appropriate course selection; not open to students with credit in MATH 57.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<td>5 hours lecture. (60 hours total per quarter.)</td>
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<td>The second of two in the Statway sequence. Covers concepts and methods of statistics with an emphasis on data analysis. Topics include methods for collecting data, graphical and numerical descriptive statistics, correlation, simple linear regression, basic concepts of probability, confidence intervals and hypothesis tests for means and proportions, chi-squared tests, and ANOVA. Application problems will be taken from the fields of business, economics, medicine, engineering, education, psychology, sociology and from culturally diverse situations. This sequence is recommended for students with majors that require no mathematics beyond freshman-level statistics.</td>
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<td>FHGE: Communication &amp; Analytical Thinking</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>MATH 22</td>
<td>DISCRETE MATHEMATICS</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
<td>Prerequisite: MATH 105 or equivalent.</td>
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<td>Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process or completion of ESLL 125 &amp; ESLL 249; not open to students with credit in CIS 18 or C S 18.</td>
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<td>Not Repeatable.</td>
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<td>5 hours lecture. (60 hours total per quarter.)</td>
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<td>Discrete mathematics: set theory, logic, Boolean algebra, methods of proof, mathematical induction, number theory, discrete probability, combinatorics, functions, relations, recursion, algorithm efficiencies, graphs, trees.</td>
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<tr>
<td>MATH 42</td>
<td>MATH FOR ELEMENTARY SCHOOL TEACHERS</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
<td>Prerequisite: MATH 105 or equivalent.</td>
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<td>Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process or completion of ESLL 125 &amp; ESLL 249.</td>
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<td>Not Repeatable.</td>
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<td>5 hours lecture. (60 hours total per quarter.)</td>
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<td>Focuses on the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including real numbers systems and subsystems. Emphasis is on comprehension and analysis of mathematical concepts and applications of logical reasoning.</td>
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<td>MATH 44</td>
<td>MATH FOR THE LIBERAL ARTS</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
<td>Prerequisite: MATH 105 or equivalent.</td>
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<td>Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process or completion of ESLL 125 &amp; ESLL 249.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>Not Repeatable.</td>
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<td></td>
<td>5 hours lecture. (60 hours total per quarter.)</td>
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<td>A survey of mathematical models and other tools to introduce the non-specialist to the methods of quantitative reasoning. Problem solving by Polya’s method with analytic, numeric, graphical, and verbal investigation. Selecting, constructing, and using mathematical models. Interpreting quantitative results in qualitative context. Emphasis on deductive reasoning and formal logic; algebraic, exponential, logarithmic, and trigonometric models; probability and the normal distribution; data analysis; and selected topics from discrete math, finite math, and statistics.</td>
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<td>FHGE: Communication &amp; Analytical Thinking</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>MATH 48A</td>
<td>PRECALCULUS I</td>
<td>5</td>
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<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
<td>Prerequisite: MATH 105 or equivalent.</td>
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<td>Corequisite: For students who do not meet the prerequisite requirement, concurrent enrollment in MATH 248A is required.</td>
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<td>Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process or completion of ESLL 125 &amp; ESLL 249; UC credit for MATH 48A, 48B and 48C is limited to a maximum of 7.5 units for the combination or any portion of the series completed.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>5 hours lecture. (60 hours total per quarter.)</td>
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<td></td>
<td>Introduction to functions and families of functions, including linear functions, quadratics, power and radical functions, absolute value functions, piece-wise defined functions, transformations of these functions, composition of these functions and their use in solving application problems.</td>
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<td>FHGE: Communication &amp; Analytical Thinking</td>
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<tr>
<td>MATH 48A</td>
<td>PRECALCULUS I</td>
<td>3 Units</td>
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<tr>
<td>MATH 48B</td>
<td>PRECALCULUS II</td>
<td>5 Units</td>
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<tr>
<td>MATH 48C</td>
<td>PRECALCULUS III</td>
<td>5 Units</td>
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<tr>
<td>MATH 67</td>
<td>ENHANCED MATHEMATICS LEARNING WITH MATHEMATICA</td>
<td>3 Units</td>
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<tr>
<td>MATH 70R</td>
<td>INDEPENDENT STUDY IN MATHEMATICS</td>
<td>1 Unit</td>
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<tr>
<td>MATH 71R</td>
<td></td>
<td>2 Units</td>
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<tr>
<td>MATH 72R</td>
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<td>3 Units</td>
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<tr>
<td>MATH 73R</td>
<td></td>
<td>4 Units</td>
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<tr>
<td>MATH 105</td>
<td>INTERMEDIATE ALGEBRA</td>
<td>5 Units</td>
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<tr>
<td>MATH 180</td>
<td>QUANTITATIVE REASONING</td>
<td>5 Units</td>
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<tr>
<td>MATH 217</td>
<td>INTEGRATED STATISTICS I</td>
<td>5 Units</td>
</tr>
<tr>
<td>MATH 248A</td>
<td>JUST-IN-TIME SUPPORT FOR</td>
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**MATH 48A**: Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 48A or equivalent.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; UC credit for MATH 48A, 48B and 48C is limited to a maximum of 7.5 units for the combination or any portion of the series completed.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)

This course is a continuation of topics from MATH 48A. Topics include polynomial, rational, exponential and logarithmic functions, transformations of these functions and their use in solving application problems.
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC

**MATH 48B**: Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 48B.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; UC credit for MATH 48A, 48B and 48C is limited to a maximum of 7.5 units for the combination or any portion of the series completed.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)

This course is a continuation of topics from MATH 48B. Topics include the six trigonometric functions, trigonometric identities, inverse trigonometric functions, trigonometric equations, right triangles, oblique triangles, vectors, parametric equations, and applications with various functions.
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC

**MATH 48C**: Degree & Credit Status: Degree-applicable credit course
Prerequisite: MATH 48B.
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; UC credit for MATH 48A, 48B and 48C is limited to a maximum of 7.5 units for the combination or any portion of the series completed.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)

This course is a continuation of topics from MATH 48B. Topics include polynomial, rational, exponential and logarithmic functions, transformations of these functions and their use in solving application problems.
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC

**MATH 67**: Degree & Credit Status: Degree-applicable credit course
Advisory: MATH 48A or equivalent; ability to download software and work with basic programs like Word or Excel.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)

FHGE: Non-GE Applicable
Transferable: None

**MATH 70R**: Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)

Provides an opportunity for the student to expand their studies in Mathematics beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable
Transferable: CSU
**MEDIA STUDIES**

Fine Arts and Communication
650.949.7562 foothill.edu/fa/

**MDIA 1**  INTRODUCTION TO FILM  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in F TV 1, MDIA 1H or VART 1.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
A survey of the language, technology, theory and aesthetics of the moving image as an art form. Emphasizes an introduction to the critical analysis of the film and video.
FHGE: Humanities  Transferable: CSU/UC

**MDIA 1H**  HONORS INTRODUCTION TO FILM STUDIES  4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in F TV 1, MDIA 1 or VART 1.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
A survey of the language, technology, theory and aesthetics of the moving image as an art form with an emphasis on the critical analysis of film and media. The honors section offers an enriched and rigorous study in film analysis and introductory film theory. Completion of the honors section requires in-depth analytic readings and completion of two critical analysis essays. Assessment of exams and essays is rigorous. Strongly suggested for students planning to transfer to a four-year college or university in film and media studies.
FHGE: Humanities  Transferable: CSU/UC

**MDIA 2A**  HISTORY OF FILM 1895-1945  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in F TV 2A or VART 2A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Survey of the development of motion pictures from beginning to the 1940s. Emphasis on understanding evolution of international filmmaking.
FHGE: Humanities  Transferable: CSU/UC

**MDIA 2B**  HISTORY OF FILM 1945-CURRENT  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in F TV 2B or VART 2B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
A survey of the advancement of cinematic art from 1945 to the present. Investigation and critical analysis of influential films, prominent filmmakers, and technological developments. Study of the economic, regulatory, cultural, and artistic forces at work in the evolution of film.
FHGE: Humanities  Transferable: CSU/UC

**MDIA 2C**  CURRENT TRENDS IN FILM, TV & THE INTERNET  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in F TV 2C or VART 2C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
FHGE: Humanities  Transferable: CSU/UC

**MDIA 3**  INTRODUCTION TO FILM & MEDIA CRITICISM  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: ENGL 110.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
An introduction to the critical analysis of film, television, and internet media. Explore and apply the core concepts and language of media theory, including approaches through semiotics, post-structuralism, psychoanalysis, multicultural analysis, gender and sexuality.
FHGE: Communication & Analytical Thinking  Transferable: CSU/UC

**MDIA 4**  EXPERIMENTAL FILM & VIDEO  4 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
A survey of experimental film from the early 20th century to the present, as well as video art from the 1960s on. Investigation and critical analysis of influential films/videos, prominent filmmakers, and technological developments. Study of the political, cultural, and artistic forces at work in the development of experimental film and video practices.
FHGE: Humanities  Transferable: CSU/UC

**MDIA 5**  AMERICAN CINEMA  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in F TV 3 or VART 3.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Introduction to American film as a component of art, history, culture and business. How Hollywood has shaped an industry that has come to reflect many aspects of the American experience. American cinematic history, terminology, economic structure and cultural importance. Development of analysis and writing skills.
FHGE: Non-GE Applicable  Transferable: CSU/UC

**MDIA 6**  FILM & NEW MEDIA GENRES  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: UC course transferability will be determined by the university after student transfer.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Analysis of specific genres within film and new media and their evolution. Specific genres will be explored, considering their historic, aesthetic, structural, and cultural dimensions, as well as their mode of screening and distribution. Genres include film noir, horror, science fiction, disaster, war, action-adventure, musical, romance, comedy.
FHGE: Non-GE Applicable  Transferable: CSU/UC
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MDIA 7</td>
<td>DOCUMENTARY FILM</td>
<td>4</td>
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<tr>
<td>MDIA 8A</td>
<td>RACE &amp; GENDER IN AMERICAN MEDIA</td>
<td>4</td>
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<tr>
<td>MDIA 11</td>
<td>INTRODUCTION TO POPULAR CULTURE</td>
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<td>MDIA 11H</td>
<td>HONORS INTRODUCTION TO POPULAR CULTURE</td>
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<tr>
<td>MDIA 12</td>
<td>POPULAR CULTURE &amp; UNITED STATES HISTORY</td>
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<tr>
<td>MDIA 13</td>
<td>VIDEO GAMES &amp; POPULAR CULTURE</td>
<td>4</td>
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<tr>
<td>MDIA 20</td>
<td>FUNDAMENTALS OF MEDIA PRODUCTION</td>
<td>4</td>
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<tr>
<td>MDIA 30</td>
<td>DIGITAL VIDEO EDITING I</td>
<td>4</td>
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**MDIA 7: DOCUMENTARY FILM**

Degree & Credit Status: Degree-applicable credit course  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)  
A survey of the development and practice of documentary film from the early 1900s to the present. Investigation and critical analysis of influential films, prominent filmmakers, and technological developments. Study of the economic, cultural, and artistic forces at work in the evolution of documentary film.  
FHGE: Humanities Transferable: CSU/UC

**MDIA 8A: RACE & GENDER IN AMERICAN MEDIA**

Degree & Credit Status: Degree-applicable credit course  
Advisory: ENGL 110.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)  
This course examines the complexities of race and gender representation in U.S. film and media. Students study the history of media representation, applying theory as a tool for analysis. Examine the means by which the media define and promote cultural stereotypes. In addition, students examine how media images and institutions influence and shape racial and gender identities. Contributions to the field of important filmmakers and media artists will be examined.  
FHGE: American Cultures & Communities Transferable: CSU/UC

**MDIA 11: INTRODUCTION TO POPULAR CULTURE**

Degree & Credit Status: Degree-applicable credit course  
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; not open to students with credit in F A 1 or MDIA 11H.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)  
Overview, history and critical analysis of popular culture as a window for understanding American society. Theories and methods of analyzing artifacts of popular culture. Overarching themes: history/social theories of popular culture; popular culture as a product of American multiculturalism; the relationship between a commodity culture and intellect/artistry; philosophical/ethical issues surrounding popular culture.  
FHGE: Humanities Transferable: CSU/UC

**MDIA 11H: HONORS INTRODUCTION TO POPULAR CULTURE**

Degree & Credit Status: Degree-applicable credit course  
Prerequisite: Honors Institute participant.  
Advisory: Not open to students with credit in F A 1 or MDIA 11.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)  
Overview, history and critical analysis of popular culture as a window for understanding American society. Theories and methods of analyzing artifacts of popular culture. Overarching themes: history/social theories of popular culture; popular culture as a product of American multiculturalism; the relationship between a commodity culture and intellect/artistry; philosophical/ethical issues surrounding popular culture. The honors section offers deeper theoretical content, assignments that require more sophisticated cognition/critical thinking, more rigorous assessment, and an additional summative project.  
FHGE: Humanities Transferable: CSU/UC

**MDIA 12: POPULAR CULTURE & UNITED STATES HISTORY**

Degree & Credit Status: Degree-applicable credit course  
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249; not open to students with credit in F A 2.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)  
Interdisciplinary overview of popular culture as a window for understanding American history and society. Theories and methods of analyzing the artifacts of popular culture. Overarching themes: 1) the interpretation of American history via popular culture media; 2) interaction between American historical events and trends, and popular culture.  
FHGE: American Cultures & Communities Transferable: CSU/UC

**MDIA 13: VIDEO GAMES & POPULAR CULTURE**

Degree & Credit Status: Degree-applicable credit course  
Advisory: Not open to students with credit in MUS 11F.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)  
The impact of game design and game technology on popular culture. Topics will include early history including the early hardware and software designers that emerged after World War II, the rise of the video game entrepreneurs and the resulting multi-billion dollar arcade industry, eight generations of home video game console inventors from the Magnavox Odyssey through the present day, the impact of the home computer on video games, the evolution of the handheld game console from early LCD games through the smart phone, online gaming from the first text-based games built by hobbyists through the current massively-multi-player online role-playing games, and the validation of video games as an art form as evidenced by their addition to the collections of prominent institutions such as the Smithsonian and MoMA. For each historical era, the influence of video games on popular culture will be demonstrated through film, television, print, and music.  
FHGE: Humanities Transferable: CSU/UC

**MDIA 20: FUNDAMENTALS OF MEDIA PRODUCTION**

Degree & Credit Status: Degree-applicable credit course  
Advisory: Not open to students with credit in F TV 20, GID 20 or VART 20.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)  
Basic instruction in concepts, techniques, and strategies of digital media production. Basic camera, lighting and sound recording will be covered through technical assignments. Emphasis on story telling, creative problem solving, video production and distribution techniques.  
FHGE: Non-GE Applicable Transferable: CSU/UC

**MDIA 30: DIGITAL VIDEO EDITING I**

Degree & Credit Status: Degree-applicable credit course  
Advisory: Not open to students with credit in F TV 84, VART 30 or 84.  
Grade Type: Letter Grade or Pass/No Pass  
Not Repeatable.  
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)  
Basic instruction on the use of the computer for video and film editing. Theory and practice of cinematic editing which is explored through projects, screenings, class exercises, and demonstration. Topics include montage, pace and rhythm, openings, cutting dialogue, use of sound.  
FHGE: Non-GE Applicable Transferable: CSU/UC
MDIA 31  DIGITAL VIDEO EDITING II  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MDIA 30; not open to students with credit in F TV 85, VART 31 or 85.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Continuation of MDIA 30. Further exploration of technical and aesthetic considerations in film and video editing. Address advanced topics in digital post-production. Software topics include sync, audio mixing, color correction, and compositing.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MDIA 52  SCRIPTWRITING FOR FILM  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
An introductory course in scriptwriting for film and video which covers the basic skills needed in scripting for the media. Emphasis will be on the development of visual sensitivity, the examination of sample scripts and experience in progressing from concept to finished script. The role of the script in media production and the appropriate formats for fiction and non-fiction scripts will also be examined.
FHGE: Non-GE Applicable  Transferable: CSU

MUSIC

Fine Arts and Communication
650.949.7016  foothill.edu/music/

Foothill offers music activity courses in three different family categories, as well as theatre arts activity courses in four different family categories. No single course may be repeated. Enrollment is limited to six courses per family within the Foothill-De Anza Community College District. Please refer to the De Anza College Catalog for the corresponding families and courses.

Piano Class Applied Performance Family: MUS 12A, 12B & 12C
Voice Class Applied Performance Family: MUS 13A, 13B & 13C
Theatre Voice Family: MUS 47A or THTR 47A, MUS 47B or THTR 47B, MUS 47C or THTR 47C, MUS 47D or THTR 47D, THTR 48A, MUS 48B or THTR 48B & MUS 48C or THTR 48C

MUS 1  INTRODUCTION TO MUSIC  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
A study of Western music and its place in civilization. Selected listening and readings from the masterpieces of music of Europe and the Western Hemisphere with an emphasis on methods of comprehension, listening techniques, the elements of music, primary musical forms, and a wide range of concert repertoire. Includes a study of how social, political, philosophical, and other artistic developments outside of music influenced compositional thinking and how these were integrated into the different periods of Western musical history. A variety of media consisting of slides, videos, recordings, and lecture will be used. Live performance used when possible.
FHGE: Humanities  Transferable: CSU/UC

MDIA 2A  GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 2AH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
An introduction to the great composers and music masterpieces of Western culture, including composer biographies with emphasis on how composers synthesize or transform the aesthetic ideals of their time. Examines how composers’ music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical periods include the ancient world and the Medieval, Renaissance, and Baroque eras. Composers include Josquin, Lassus, Palestrina, Monteverdi, Purcell, Vivaldi, Handel and Bach.
FHGE: Humanities  Transferable: CSU/UC

MDIA 2AH  HONORS GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in MUS 2A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
An introduction to the great composers and music masterpieces of Western culture, including composer biographies with emphasis on how composers synthesize or transform the aesthetic ideals of their time. Examines how composers’ music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical periods include the ancient world and the Medieval, Renaissance, and Baroque eras. Composers include Josquin, Lassus, Palestrina, Monteverdi, Purcell, Vivaldi, Handel and Bach. The honors section offers deeper theoretical content, assignments that require more sophisticated cognition/critical thinking, more rigorous assessment, and additional creative and summative projects.
FHGE: Humanities  Transferable: CSU/UC

MUS 2B  GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 2BH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Introduction to the great composers and music masterpieces of Western culture. Includes composer biographies with emphasis on how composers synthesize or transform the aesthetic ideals of their time. Examines how composers’ music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical periods include the Classical period up through early Romanticism. Composers include Gluck, Haydn, Mozart, Beethoven, Schubert and Weber.
FHGE: Humanities  Transferable: CSU/UC
MUS 2BH  HONORS GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION  5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in MUS 2B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Introduction to the great composers and music masterpieces of Western culture. Includes composer biographies with emphasis on how composers synthesize or transform the aesthetic ideals of their time. Examines how composers' music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical periods include the Classical period up through early Romanticism. Composers include Gluck, Haydn, Mozart, Beethoven, Schubert and Weber. The honors section offers deeper theoretical content, assignments that require more sophisticated cognition/critical thinking, more rigorous assessment, and additional creative and summative projects.
FHGE: Humanities  Transferable: CSU/UC

MUS 2C  GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION  5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 2CH.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Introduction to the great composers and music masterpieces of Western culture. Includes composer biographies with emphasis on how composers synthesize or transform the aesthetic ideals of their time. Examines how their music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical periods are mid-19th century Romanticism through the present. Composers include Schumann, Chopin, Mendelssohn, Brahms, Berlioz, Liszt, Tchaikovsky, Mussorgsky, Strauss, Verdi, Wagner, Bizet, Debussy, Ravel, Ives, Cowell, Bartok, Berg, Webern, Stravinsky, Copland, Varese, Babbitt, Cage, Crumb, Ligeti, Penderecki, Reich, Glass and Adams.
FHGE: Humanities  Transferable: CSU/UC

MUS 2CH  HONORS GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION  5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in MUS 2C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Introduction to the great composers and music masterpieces of Western culture. Includes composer biographies with emphasis on how composers synthesize or transform the aesthetic ideals of their time. Examines how their music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical periods are mid-19th century Romanticism through the present. Composers include Schumann, Chopin, Mendelssohn, Brahms, Berlioz, Liszt, Tchaikovsky, Mussorgsky, Strauss, Verdi, Wagner, Bizet, Debussy, Ravel, Ives, Cowell, Bartok, Berg, Webern, Stravinsky, Copland, Varese, Babbitt, Cage, Crumb, Ligeti, Penderecki, Reich, Glass and Adams. The honors section offers deeper theoretical content, assignments that require more sophisticated cognition/critical thinking, more rigorous assessment, and additional creative and summative projects.
FHGE: Humanities  Transferable: CSU/UC

MUS 2D  WORLD MUSIC: ROOTS TO CONTEMPORARY GLOBAL FUSION  5 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
A survey of world music styles from their roots in the ethnic traditions of a specific culture through their evolution into new forms that retain vitality and relevance in contemporary society. Traces the elements that make each style distinctive from a purely musical perspective, as well as the social, historical, and cultural context that shaped each style's development. Styles include salsa, reggae, Rai, Celtic, fado, flamenco, South African township, Bollywood filmi, and more.
FHGE: Humanities  Transferable: CSU/UC

MUS 2F  HISTORY OF AMERICAN MUSICAL THEATRE  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in THTR 2F.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
An introductory survey of the history of the American musical theatre genre. Includes roots in British music halls, Viennese operetta and African American jazz through the golden age of the musical and up to the contemporary Broadway stage. Emphasis will be placed on genres and styles, as well as the key composers, lyricists, librettists, directors, producers, designers, choreographers and performers. Examines how the musical mirrors contemporary social and political events.
FHGE: Humanities  Transferable: CSU/UC

MUS 3A  THEORY & MUSICIANSHIP I  5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 12A strongly recommended.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Introduction to the fundamentals of music and their application to composition and music literature. Notation, scales, intervals, triads, essential cadential formulas and phrase structure and their use in basic composition. Musicianship skills to include melodic dictation with leaps within the triad, rhythmic dictation in different meters, ear recognition of intervals, triad qualities including inversions, and dominant seventh chords, sight-singing simple step-wise melodies.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 3B  THEORY & MUSICIANSHIP II  5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 3A proficiency or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Continuation of common practice procedures in music and their application to composition and music literature. Seventh chords, an introduction to two-part counterpoint, secondary dominants and leading tone chords, modulation, and voice-leading techniques in four-part chorale writing. Musicianship skills to include melodic dictation with leaps from the I, IV, and V7 chords, rhythmic dictation in both simple and compound meters, harmonic dictation of typical chord progressions including notation of outer voices and Roman numerals, and sight-singing melodies with leaps from the I, IV, and V7 chords.
FHGE: Non-GE Applicable  Transferable: CSU/UC
MUS 3C THEORY & MUSICIANSHIP III 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 3B proficiency or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Continuation of concepts from MUS 3B, including guided analysis and composition using beginning chromatic harmony, secondary dominants and leading tone chords, modulation, borrowed chords, the Neapolitan sixth chord, and all forms of the augmented sixth chord. Musicianship skills to include melodic dictation in major and minor keys with triplets, syncopation, and pivot chord modulations, rhythmic dictation in simple and compound meters with syncopation and triplets, aural identification of four part harmonic progressions that use secondary dominants and pivot chord modulation, sight-singing melodies that modulate.
FHGE: Non-GE Applicable Transferable: CSU/UC

MUS 3D THEORY & MUSICIANSHIP IV 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 3C proficiency or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Continuation of concepts from MUS 3C, including late 19th century chromatic harmony. Through guided analysis and composition, course includes: application of augmented 6th chords, borrowed chords, medieval modes, 9th, 11th, and 13th chords, altered dominants, chromatic mediant, and impressionism. Analysis and writing on atonality, 12-tone method, pandiatonicism, set theory, and polytonality. Musicianship skills to include sight-singing modes, melodic dictation with modes and chromatic melodies, rhythmic dictation of irregular or asymmetrical meters, aural identification of harmonic progressions using chromatic chords and modulations to non-closely related keys.
FHGE: Non-GE Applicable Transferable: CSU/UC

MUS 7 CONTEMPORARY MUSICAL STYLES: ROCK, POP & JAZZ 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Continuation of jazz, popular, and rock music with a focus on the Beatles. Analyzes the sociological impact the Beatles' statements had on non-musical matters, such as politics, drugs, religion, etc. Examines the influences of pop music on the Beatles' early style as well as the group's own influence on music and pop culture in general. A variety of media consisting of videos, recordings, lecture, and live performance will be used.
FHGE: Humanities Transferable: CSU/UC

MUS 7D CONTEMPORARY MUSICAL STYLES: THE BEATLES IN THE CULTURE OF POPULAR MUSIC 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Continuation of jazz, popular, and rock music with a focus on the Beatles. Examines the influences of pop music on the Beatles' early style as well as the group's own influence on music and pop culture in general. A variety of media consisting of videos, recordings, lecture, and live performance will be used.
FHGE: Humanities Transferable: CSU/UC

MUS 8 MUSIC OF AMERICAN CULTURES 5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 8H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
A comparative and integrative study of American music, this course explores the music traditions and styles of Native Americans, European Americans, African Americans, Chicano/Latino Americans, and Asian Americans, from their historical roots to the present. It includes a wide variety of genres, such as folk, spirituals, gospel, soul, blues, jazz, Cajun, zydeco, salsa, Tejano, hip-hop and rap. Students will look at these musical traditions from a technical and a cultural perspective as they develop listening and descriptive skills.
FHGE: American Cultures & Communities, Humanities Transferable: CSU/UC

MUS 7F MUSIC IN FILM 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
A cross cultural study of how music propels the story line in motion pictures from symphonic scores to pop soundtracks comparing imagery, emotions, characterizations, rhythm, intervals, melody, and chords. A 'music-in-film' history course that blends the study of film music composers with an analysis of musical techniques from the earliest examples of film sound to film noir, westerns to James Bond, Hitchcock to musicals, and the Golden Era of Hollywood to Star Wars. Students will differentiate between parallel, contrapuntal, and associative types of music in film. The goal of the class is to identify how music and culture function in film to highlight dialogue, reflect thoughts, create tension, and establish a sense of time and place. Previous musical knowledge is helpful, but not necessary.
FHGE: Humanities Transferable: CSU/UC

MUS 8H MUSIC OF AMERICAN CULTURES 5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
A comparative and integrative study of American music, this course explores the music traditions and styles of Native Americans, European Americans, African Americans, Chicano/Latino Americans, and Asian Americans, from their historical roots to the present. It includes a wide variety of genres, such as folk, spirituals, gospel, soul, blues, jazz, Cajun, zydeco, salsa, Tejano, hip-hop and rap. Students will look at these musical traditions from a technical and a cultural perspective as they develop listening and descriptive skills.
FHGE: American Cultures & Communities, Humanities Transferable: CSU/UC
MUS 8H  HONORS MUSIC OF AMERICAN CULTURES  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in MUS 8.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
A comparative and integrative study of American music, this course explores the music traditions and styles of Native Americans, European Americans, African Americans, Chicano/Latino Americans, and Asian Americans, from their historical roots to the present. It includes a wide variety of genres, such as folk, spirituals, gospel, soul, blues, jazz, Cajun, zydeco, salsa, Tejano, hip-hop and rap. Students will look at these musical traditions from a technical and a cultural perspective as they develop listening and descriptive skills. The honors course offers an enriched and challenging experience for the more talented student, including deeper content, more rigorous grading, and more demanding and creative assignments requiring application of higher-level thinking, writing, and communication skills.
FHGE: American Cultures & Communities, Humanities
Transferable: CSU/UC

MUS 9A  MUSIC & MEDIA: EDISON TO HENDRIX  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 85 or 85A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Introductory study of the history and development of popular music from the inception of recording through the first televised performances of the Beatles in the U.S. Development of media delivery, including recording, radio, television, and how those delivery systems changed both the content of music and its use by the public. The influence of media on the development of styles such as jazz, swing, country, rockabilly and rock and roll, including societal changes brought about by media delivery of music and how it became associated with graphic imagery such as television and cinema.
FHGE: Non-GE Applicable
Transferable: CSU/UC

MUS 9B  MUSIC & MEDIA: HENDRIX TO HIP-HOP  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 85B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Introductory study of the history and development of popular music from 1964 through the present in the U.S. The class will examine the development of media delivery systems after the Beatles' first appearances on television through the growth of rock and alternative styles. Styles to be studied include punk, ska, the rebirth of country music and the rise of hip-hop culture, examining artists such as Jimi Hendrix, Pink Floyd, David Bowie, Frank Zappa, Prince, The Police, Chuck D. and others. The class will study the development and growth of music videos as an art form and the delivery/promotional systems developed for them, such as MTV.
FHGE: Non-GE Applicable
Transferable: CSU/UC

MUS 10  MUSIC FUNDAMENTALS  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Beginning theory course where the basic elements of musicianship and harmony are explored through lecture, listening, and written assignments. Rudiments of music like pitch, rhythm, harmony, style, and form will be examined as rock and roll is analyzed through classical music theory.
FHGE: Non-GE Applicable
Transferable: CSU/UC

MUS 11A  JAZZ & SWING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 64A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
History and analysis of jazz styles and trends from the development of Ragtime to 1969. An introduction to the instruments, performers, composers, compositions and recordings that defined/funke jazz, fusion and hip-hop.
Presentations of recordings, videos and print resources. Major artists include Louis Armstrong, Duke Ellington, Benny Goodman, Glenn Miller, Lionel Hampton, Count Basie, Charlie Parker, Dizzy Gillespie, Miles Davis, Sonny Rollins, Charles Mingus and John Coltrane. Style periods include Early (“Dixieland”), Big Band, Jump, Swing, Bebop, Hard Bop, Cool, Modal, and Avant-Garde Jazz.
FHGE: Non-GE Applicable
Transferable: CSU/UC

MUS 11B  FUNK, FUSION & HIP-HOP  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 64B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
History and analysis of funk, fusion and hip-hop styles from 1969 to the present. An introduction to the instruments, performers, composers, compositions and recordings that defined/funke funk, fusion and hip-hop.
Presentations of recordings, videos and print resources. Major artists include Miles Davis, Herbie Hancock, James Brown, Sly Stone, Weather Report, Wayne Shorter, George Clinton and P-Funk, Jaco Pastorius, Pat Metheny, Grandmaster Flash, Africa Bambaataa, Chuck D. and Dr. Dre. Style periods include early jazz fusion, early funk, East Bay funk, groove and smooth jazz, modern fusion, early hip hop and commercial rap.
FHGE: Non-GE Applicable
Transferable: CSU/UC

MUS 11D  HISTORY OF ELECTRONIC MUSIC: ORIGINS-1970  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
The impact of electronic musical instruments and electronic musical technology on the creation of music. Origins in the late 19th and early 20th century and the subsequent development of the first electronic instruments. Emergence of new musical styles including electroacoustic music, music concrete, and elektronische musik. The first use of computers in music. Performance with live electronics. The introduction of the synthesizer and the rise of mainstream electronic music. In addition, students will analyze historically significant works from the experimental art music of the mid-20th century through the popular forms of the 1960s.
FHGE: Humanities
Transferable: CSU/UC
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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MUS 11E</td>
<td>HISTORY OF ELECTRONIC MUSIC: 1970-PRESENT</td>
<td>4</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)</td>
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<td>The impact of emerging electronic music styles on instrument development, recording technology and popular culture in the late 20th and early 21st centuries. Incorporation of electronic music and instruments in new music, television &amp; film soundtracks and live performance, creating a market for the development and sales of portable music synthesizers. Analysis of the impact of emerging musical styles including ambient, techno and trance on the composition of contemporary music and youth culture. Comparison of analog and digital music synthesis techniques in the recording and performance of electronic music, Advances in computer technology in relation to the compositional needs of the emerging electronic musical styles. Students will analyze historically significant electronic works from experimental academic compositions to popular music from the era.</td>
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<td>FHGE:</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>MUS 11F</td>
<td>VIDEO GAMES &amp; POPULAR CULTURE</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: Not open to students with credit in MDIA 13.</td>
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<td>4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)</td>
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<td>The impact of game design and game technology on popular culture. Topics will include early history including the early hardware and software designers that emerged after World War II, the rise of the video game entrepreneurs and the resulting multi-billion dollar arcade industry, eight generations of home video game console inventors from the Magnavox Odyssey through the present day, the impact of the home computer on video games, the evolution of the handheld game console from early LCD games through the smart phone, online gaming from the first text-based games built by hobbyists through the current massively multi-player online role-playing games, and the validation of video games as an art form as evidenced by their addition to the collections of prominent institutions such as the Smithsonian and MoMA. For each historical era, the influence of video games on popular culture will be demonstrated through film, television, print, and music.</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>MUS 12A</td>
<td>BEGINNING CLASS PIANO</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: Concurrent enrollment in MUS 10; this course is included in the Piano Class Applied Performance family of activity courses.</td>
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<td>2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)</td>
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<td></td>
<td>Group instruction in piano for those with no previous training. Emphasis is on finger technique, note reading, and performance of simple piano literature. For music majors as well as the general student.</td>
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<td>Transferable: CSU/UC</td>
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<tr>
<td>MUS 12B</td>
<td>INTERMEDIATE CLASS PIANO</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: MUS 12A or equivalent skills; this course is included in the Piano Class Applied Performance family of activity courses.</td>
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<td>2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)</td>
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<td>Continuation of MUS 12A with increased emphasis on independence of hands, proper hand position, building repertoire in different genres, variety in rhythmic figurations and articulation.</td>
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<td>MUS 12C</td>
<td>ADVANCED CLASS PIANO</td>
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<td>Advisory: MUS 12B or equivalent skills; this course is included in the Piano Class Applied Performance family of activity courses.</td>
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<td>2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)</td>
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<td>Continuation of MUS 12B with greater emphasis on building a repertoire, varied styles of performance, and ensemble playing.</td>
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<td>Transferable: CSU/UC</td>
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<td>MUS 13A</td>
<td>CLASS VOICE I</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: Concurrent enrollment in MUS 12A; this course is included in the Voice Class Applied Performance family of activity courses.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)</td>
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<td>An introduction to the fundamental techniques of vocal production and performance. Group vocal instruction with the potential to sing in a variety of musical styles. Emphasis on understanding the basic foundation of a healthy vocal technique and integrating that technique into songs. Topics include warm-up techniques, breath support, tone production, musical phrasing, diction and text communication, as well as an introduction to standard vocal repertoire and associated performance practices.</td>
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<tr>
<td>MUS 13B</td>
<td>CLASS VOICE II</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: MUS 13A or equivalent skills; concurrent enrollment in MUS 12A or equivalent skills; this course is included in the Voice Class Applied Performance family of activity courses.</td>
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<td>2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)</td>
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<td>A continuation of MUS 13A at the intermediate level, with increased emphasis on tone production and support, expansion of vocal range, differentiation between the various styles of singing studied: classical, legitimate, mix and belt, develop more complex repertoire in a variety of languages, attention to communication of text, simple duet harmonies, and rehearsal practices with an accompanist.</td>
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<td>MUS 13C</td>
<td>CLASS VOICE III</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td>Advisory: MUS 13B or equivalent skills; concurrent enrollment in MUS 12A or equivalent skills; this course is included in the Voice Class Applied Performance family of activity courses.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<td>2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)</td>
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<td>A continuation of MUS 13B, with emphasis on more refinement of vocal production. Emphasis on understanding and managing vocal passagios, expansion of vocal styles to include classical and/or musical theatre repertoire. Small ensembles of duets with independent vocal lines. Learning to create and communicate character will be introduced. Emphasis on ensemble building and collaboration with accompanist.</td>
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</table>
MUS 14A | BEGINNING CLASSICAL GUITAR | 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Guitar Class Applied Performance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
A performance based course in beginning guitar (nylon, steel, or electric guitar) with a concentration on folk and contemporary music. Students will be expected to demonstrate the development of right and left hand techniques. Standard music notation, tablature, and chord symbols will be presented and students can choose instrumental or popular vocal selections to play.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 14B | INTERMEDIATE CLASSICAL GUITAR | 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 14A; this course is included in the Guitar Class Applied Performance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Continuation of MUS 14A. Emphasis is placed on reading standard notation in the first position, including the development of right and left hands. Includes reading standard notation up to the 9th position. No public performances are required.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 14C | ADVANCED CLASSICAL GUITAR | 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 14B; this course is included in the Guitar Class Applied Performance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Continuation of MUS 14B. Emphasis is placed on solo guitar literature in addition to ensemble literature. No public performances are required.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 15A | BEGINNING ACOUSTIC GUITAR TECHNIQUES | 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Guitar Class Applied Performance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
A performance based course in beginning guitar (nylon, steel, or electric guitar) with a concentration on folk music. Fundamental exercises and pieces will be played by the student in class as the instructor provides accompaniment. Includes an overview of the literature and the major performers of the classical guitar. No public performances are required.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 15B | INTERMEDIATE ACOUSTIC GUITAR TECHNIQUES | 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 15A or equivalent; this course is included in the Guitar Class Applied Performance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Developmental course focusing on intermediate finger-picking style playing and picking techniques. Solo and ensemble performance on an intermediate level. Emphasis is placed on reading standard notation, chord symbols and tablature. This course is a continuation of the study of the guitar in the popular and folk idioms. Through analysis, playing, and ensemble performance, various songs and styles will be studied. This is a performance based course with the broad range of folk music as its subject matter.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 15C | ADVANCED ACOUSTIC GUITAR TECHNIQUES | 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 15B or equivalent; this course is included in the Guitar Class Applied Performance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Continuation of MUS 38A, focusing on the study, rehearsal, and public performance of guitar repertoire (both guitar-only ensembles and guitars with other instruments), with emphasis on the development of the skills needed to perform within an ensemble. Students will learn to perform musically, rhythmically and with accurate intonation. Repertoire is contingent upon instrument availability and will include simple duets, trios, quartets from the Renaissance through Contemporary. Students must know how to read notation and possess a basic mastery of the instrument. Students learn to critique both their own and others’ performances. Instructor will coach throughout.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 38A | GUITAR ENSEMBLE I | 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 14C or ability to read notation.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
The study, rehearsal, and public performance of guitar repertoire (both guitar-only ensembles and guitars with other instruments), with emphasis on the development of the skills needed to perform within an ensemble. Students will learn to perform musically, rhythmically and with accurate intonation. Repertoire is contingent upon instrument availability and will include simple duets, trios, quartets from the Renaissance through Contemporary. Students must know how to read notation and possess a basic mastery of the instrument. Students learn to critique both their own and others’ performances. Instructor will coach throughout.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 38B | GUITAR ENSEMBLE II | 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Continuation of MUS 38A, focusing on the study, rehearsal, and public performance of guitar repertoire (both guitar-only ensembles and guitars with other instruments), with emphasis on the development of the skills needed to perform within an ensemble. Students concentrate on their musical skill development and will learn to perform musically, rhythmically and with accurate intonation at a second quarter level. Greater emphasis is placed on unity of attack, timbre, and communication. Students are expected to know how to read notation, possess an intermediate grasp of technique and have ensemble experience. Repertoire from the Renaissance through Contemporary, including Bach, Biberian, Handel, de Visee, Diabelli (contingent upon instrument availability). Students learn to critique both their own and others’ performances. Instructor will coach throughout.
FHGE: Non-GE Applicable  Transferable: CSU/UC
MUS 38C  GUITAR ENSEMBLE III  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 1 hour laboratory. (36 hours total per quarter.)
Continuation of MUS 38B, focusing on the study, rehearsal, and public performance of guitar repertoire (both guitar-only ensembles and guitars with other instruments), with emphasis on the development of the skills needed to perform within an ensemble. Students continue to develop ensemble abilities and will learn to perform musically, rhythmically and with accurate intonation with greater emphasis on dynamics, facility, and performance. Students learn to switch between melodic and accompaniment parts quickly and appropriately. Repertoire includes more intricate pieces with Bach, Pachelbel, Villa-Lobos, and Paganini (based upon instrument availability). Students learn to critique both their own and others’ performances. Instructor will coach throughout.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 47A  INTRODUCTION TO MUSICAL THEATRE PRODUCTION  6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Theatre Voice family of activity courses; not open to students with credit in THTR 47A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
18 hours laboratory. (216 hours total per quarter.)
This course will introduce the fundamentals of musical theatre performance through the rehearsal and performance of a fully staged musical theatre production. Students are required to attend rehearsals and performances.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 47B  INTERMEDIATE MUSIC THEATRE PRODUCTION WORKSHOP  6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Theatre Voice family of activity courses; not open to students with credit in THTR 47B or 47X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
18 hours laboratory. (216 hours total per quarter.)
This course will develop technical skills required at the intermediate level of musical theatre performance through the rehearsal and performance of a fully staged musical theatre production. Students are required to attend rehearsals and performances.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 47C  ADVANCED MUSIC THEATRE PRODUCTION WORKSHOP  6 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MUS 47B or THTR 47B.
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Theatre Voice family of activity courses; not open to students with credit in THTR 47C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
18 hours laboratory. (216 hours total per quarter.)
Assists the student to develop technical skills required at the advanced level of musical theatre performance through the rehearsal and performance of a fully staged musical theatre production.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 47D  ADVANCED MUSIC THEATRE PRODUCTION WORKSHOP II  6 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MUS 47C or THTR 47C.
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Theatre Voice family of activity courses; not open to students with credit in THTR 47D.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
18 hours laboratory. (216 hours total per quarter.)
This course will assist the student to develop technical skills required at the advanced level of musical theatre in the areas of stage direction or choreography through the rehearsal and performance of a fully staged musical theatre production.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 48B  SINGING TECHNIQUE FOR MUSICAL THEATRE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 13A, 13B and 13C; this course is included in the Theatre Voice family of activity courses; not open to students with credit in THTR 48B.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Practical introduction to the fundamentals of singing for musical theatre repertoire. Students will explore the principals of healthy vocal production in solo and/or ensemble singing to develop the singing voice through exercises and repertoire from the Standard American Musical Theatre. Songs will be developed with strong emphasis on character development and communication.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 48C  MUSICAL THEATRE REPERTOIRE FOR SINGERS  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MUS 48B.
Advisory: MUS 13C; this course is included in the Theatre Voice family of activity courses; not open to students with credit in THTR 48C.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Vocal techniques and styles as utilized in musical theater. Instruction includes development of singing skills, basic body movement, acting technique, interpretation of Broadway song literature in a staged performance. Students are required to prepare a final project excerpted from a standard work. Attendance at all scheduled performances is required.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MUS 70R  INDEPENDENT STUDY IN MUSIC/MUSIC TECHNOLOGY  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MUS 71R, 72R or MUS 73R.
Advisory: Enrollment subject to audition and instructor assignment.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Music or Music Technology beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU
MUS 83A  MUSIC & MEDICINE  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MTEC 84A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Introduction to the field of music therapy and the creative powers of sound. Study diverse styles of music, including classical, jazz, blues, pop, hip-hop, new age and world music used as a transformative force to enhance social, emotional, educational, behavioral development and pain management. Apply music therapy concepts to compose and produce original music. Develop music making skills with drumming, group songwriting, lyric analysis, guided relaxation, movement, improvisation and original compositions integrated with the latest music software technologies, including Pro Tools and Virtual Instruments. Study prevention of injury and maintenance of health for musicians and performing artists. Survey careers in the music therapy industry, including degrees, certifications and multi-media production applications.
FHGE: Non-GE Applicable  Transferable: CSU

MUS TECHNOLOGY

Fine Arts and Communication
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MTEC 49  HISTORY OF MUSIC TECHNOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
The history of music technology and sound recording from the earliest analog devices to current digital streaming services. How technological change is inseparable from economic, cultural and political change. Ways that music producers responded to different access of technologies shaped by geographical and economic factors. Historical, cultural and theoretical understanding of recorded sound, media, and digital distribution. How the digital era, laptop computers and mobile phones made home studios the dominant location for commercial record production. Hands-on experience with a variety of analog and digital audiovisual technologies. Identify hallmark sounds from commercially released recordings by historically significant audio engineers, music producers and artists.
FHGE: Non-GE Applicable  Transferable: CSU/UC

MTEC 50A  INTRODUCTION TO MUSIC TECHNOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 66A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to creating music with computers, keyboards, audio samples and beats using Pro Tools and other digital audio workstations. Basic principles and use of MIDI sequencing/audio software. Songwriting, musical composition, mixing, mastering and the basic elements of music (pitch, rhythm, harmony, style and form) as they relate to contemporary music. Basic music production using Pro Tools. General computer literacy and media management. All styles are included, and prior musical training is not required.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 51A  STUDIO RECORDING I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 80A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to fundamental concepts and techniques of mixing boards, amplifiers, microphones, signal processors and their application to both live and studio sound reinforcement. Basic introduction to computer based recording with Avid Pro Tools HD systems. Microphone placement, physics of sound as it relates to recording, sound reinforcement and studio setup techniques.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 51B  STUDIO RECORDING II  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 81 or 81A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to multitrack recording and production using Avid Pro Tools HD systems. Contemporary recording studio production techniques including microphone selection, placement, analog and digital signal paths, speaker monitors and studio acoustics. Techniques for recording drums, bass, piano, guitar, woodwinds, strings and vocals. Practical hands-on experience with professional recording artists and student collaborations.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 51C  STUDIO RECORDING III  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Advanced recording studio techniques, concepts and creative elements of professional music production. Advanced microphone techniques and acoustics. Planning and pre-production, studio team work, collaborating with musicians in the role of producer/engineer. Mixing, mastering, post production used in professional digital media content creation workflows. Utilizing analog and digital audio equipment in complex hybrid configurations. Successful completion of this class will prepare students for internship or entry level employment position in a recording studio, audio for post facility or mastering facility.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 52A  MIXING & MASTERING I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 81C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Mixing and mastering multitrack recordings using Pro Tools. EQ, compression, reverb, delays, tempo maps, harmonic distortion, multi-band compression. Comparison and contrast of various styles of mixing including jazz, classical, country, rock, hip hop and electronics etc. Example exercises featuring professional recordings and mixes. Understanding and applying mixing concepts such as balance, dimension, and monitoring. Deliver final mixes that translate accurately to various speaker systems and listening environments.
FHGE: Non-GE Applicable  Transferable: CSU
MTEC 52B  MIXING & MASTERING II  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 81G.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Advanced mixing and mastering techniques with Pro Tools. EQ, compression, reverb, delays and tempo maps as applied to all styles of music including jazz, pop, rock, hip-hop, orchestral and electronic. Apply critical listening to mixes and enhance mixes with automation, audio plug-ins and external hardware equipment. Use multi-band compression and advanced audio processing in mastering. Study mixes of professional audio engineers and recording artists. Prepare to work in commercial production facilities and apply these techniques in a home studio. Learn professional collaboration workflows, file management and delivery to a wide range of formats including CD, DVD, MP3 and Internet Streaming. Although this course uses Pro Tools, the concepts and techniques can be applied to any digital audio workstation (Logic, Cubase etc.) or any traditional analog mixing console.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 53A  AUDIO PLUG-INS & SIGNAL PROCESSING  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 81D.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Creative applications of software plugins and outboard hardware used in contemporary music production and sound design. Signal processing, equalization, compression, Beat Detective, distortion, reverb, delay, pitch correction, modulation, advanced plugin automation techniques. Compare plugins and processors from different companies, including Sonnox, McDSP, Massey, Avid, Antares and Waves. Waves Certification Program textbook provides high-quality, standardized means of mastering audio plugins. Practice with a wide range of material and genres, including rock, pop, hip hop, jazz, acoustic, orchestral, electronic and spoken word. Apply techniques to any digital audio workstation, including Pro Tools, Logic, Ableton Live and Studio One, and traditional analog mixing consoles.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 53B  AUDIO PLUG-INS & VIRTUAL INSTRUMENTS  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 81E.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Audio processing, mixing techniques and sound design using software plugins and hardware equipment. Study and compare plugins from different manufacturers. Drum and percussion libraries, sample triggering and audio quantizing techniques. Apply Melodyne and Auto-Tune pitch correction, EQ and compression, Elastic Audio editing. Create sounds with synthesizers, samplers, drum machines and virtual instruments. Apply traditional synthesis techniques, including filters and oscillators with audio plugins, hardware synthesizers and software emulations of acoustic instruments. Sound restoration plugins, forensic audio enhancement, convolution reverb, advanced plugin automation and signal processing techniques. Exercises include sound design plugins for music, film, and video games.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 54A  MUSIC THEORY FOR AUDIO PRODUCERS  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 84A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introductory course in music theory as applied to audio production, music technology and songwriting. Study elements of music, including melody, rhythm, chords and musical forms. Understand traditional music notation as applied to MIDI sequencers, Pro Tools and other Digital Audio Workstations (DAWS). Edit drum and percussion notation to program beats, MIDI sequencer Event Lists, and digital sample libraries. Ear training exercises for audio engineers to make equalization and production decisions based on harmonic overtones, key signatures and chord progressions. Selected listening and analysis of famous composers and award-winning producers in a wide variety of styles. Study the Nashville number music notation shorthand system. Develop ability to quickly and effectively recognize chord changes and transpose to any key. Learn to read, write and conduct orchestral scores used in commercial recording studios. Apply traditional music theory concepts to modern digital audio editing software, such as Melodyne, Auto-Tune, Elastic Audio, and computer virtual instrument orchestration.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 55A  INTRODUCTION TO GAME AUDIO  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 82F or 84A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Recording, editing and mastering sound for games and interactive multimedia. Working with dialog, scripts, sound effects, foley, ambient backgrounds, loops, elastic audio, tempo matching, digital processing and plug-ins. Producing game music, layering, splicing, mixing cinematic audio. Deliver game audio formats to commercial players and end users. Hands-on experience with professional examples of game audio production soundtracks and workflows including Sony Computer Entertainment and Microsoft Game Studios. Part of Avid Pro Tools Certification training program.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 55B  ADVANCED SOUND DESIGN FOR GAMES  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 84B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Designing and implementing sound effects for games and interactive media. Recording custom sound effects and working with commercial sound effects libraries. Advanced techniques for designing hard effects, foley sounds, and ambient backgrounds. Industry-standard workflows for sound effects implementation with audio middleware solutions. Hands-on experience with professional examples of game audio sound design on desktop, console, and mobile platforms.
FHGE: Non-GE Applicable Transferable: CSU
MTEC 55C  MUSIC COMPOSITION FOR GAMES  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 84C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Composing, orchestrating, and implementing music for games and inter-
active multimedia. Fundamental composition and orchestration techniques
for strings, brass, woodwinds, and percussion. Mixing and mastering finished
compositions for optimal interactivity. Industry-standard workflows for
interactive music implementation with sophisticated audio middleware
solutions. Hands-on experience with professional examples of game music
on desktop, console, and mobile platforms.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 57A  SOUND DESIGN FOR FILM & VIDEO  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MDIA 81B, MUS 81B or VART
81B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Creating, editing, and mixing audio for film and video. Understanding aes-
thetic qualities of sound effects and music as they relate to story. Recording
original sound elements and using commercial sound libraries. Editing,
layering, and processing sound elements to create complex sound effects.
Synchronizing audio to video using a digital audio workstation. Basics of
mixing and mastering finished soundtracks for digital distribution.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 57B  SURROUND SOUND PRODUCTION  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 81J.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Record, mix, and produce surround music with digital audio workstations.
Calibrating surround speaker systems, recording surround music in the
studio and concert hall, multichannel mixing for music and post, process-
ing source sound elements using surround reverbs and delays, mastering
music and post sessions to industry specifications, and encoding mixes into
popular surround formats. Analysis of historically significant surround sound
music recordings and film soundtracks.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 60A  PRODUCING IN THE HOME STUDIO I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 60A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Design, set up and operation of an audio/video recording studio in a small
environment. Space considerations, electrical requirements and acoustic
treatment options. Computer requirements including processor speed,
memory requirements, data storage devices and monitor selection/place-
ment. MIDI keyboard types and compatibility, mixer selection and setup,
cable selection and care, microphone design, and USB/firewire interface
options. Software programs and compatibility issues. How to produce
recordings from start to finish in a home studio.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 60B  PRODUCING IN THE HOME STUDIO II  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 60B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
In-depth operation of an audio/video recording studio in a small environ-
ment. Microphone selection and placement, creative sound treatments in
non-traditional environments, and application of plug-in effects. Use of
auxiliary tracks and busses. Mixing and mastering in various digital formats.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 62A  COMPOSING & PRODUCING ELECTRONIC MUSIC I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 6 or 67.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to the tools and techniques used to create and perform elec-
tronic music in a variety of styles. Programming of virtual analog and digital
synthesizers, developing techniques for recording unique instruments and
sounds, creating custom single and multi-sample patches using software
samplers, using algorithmic composition tools and techniques, building
interactive performance systems using object-oriented programming envi-
ronments, and adapting hardware and software for live performance.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 62B  COMPOSING & PRODUCING ELECTRONIC MUSIC II  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 66C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Creating and editing sounds with synthesizers, samplers, drum machines
and virtual instruments. Compose and produce music in a variety of styles,
including commercial and experimental. Utilize MIDI and virtual instruments
for songwriting, arranging and orchestration. Program analog synthesizer
modules, including oscillators, filters, ADSR envelope generators and LFOs.
Overview of third party virtual instruments and plugins. History of sampling
and loop based compositional techniques. Create, edit, and arrange drum
beats. Emulate acoustic instruments, violin sections, brass, woodwinds and
choir. Organize sound libraries and virtual instrument templates for music
production, TV, film, websites and video games. Work can be done in any
major DAW that supports AU, AAX, or VST instruments, including Pro Tools,
Logic, Cubase, Live, etc.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 62C  COMPOSING & PRODUCING ELECTRONIC MUSIC III  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 62.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Advanced techniques for electronic music production in a variety of genres.
Recording and processing vocals. Advanced analog and digital synthesis
and sound design techniques. Field recording of original samples for use in
producing drum beats and textures. Mixing and mastering finished composi-
tions for commercial distribution. Remixing existing songs from both stereo
mixes and multi-channel stems. Creating dynamic, real-time live perform-
ances using a variety of hardware controllers.
FHGE: Non-GE Applicable  Transferable: CSU
MTEC 66A  MUSIC VIDEO PRODUCTION  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MDIA 20; MTEC 57A; not open to students with credit in MUS 81F.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Beginning digital video production course. Learning the basics of digital video production by shooting a music video. Music videos provide unique opportunity to look at the moving image from the perspective of a recorded piece of music. Ideal platform for developing technical skills while learning the importance of aesthetic choices in the video production process. Emphasis on the technical and aesthetic aspects of video camera operation; pre-production planning, including collaboration, visualization, and storyboarding; production techniques and concepts such as mise-en-scene, set design, and lighting. Emphasis on visual story telling and creative problem solving.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 70A  PRO TOOLS 101-AVID  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 82A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to Pro Tools with Avid Certification training material. Basic audio editing tools and techniques, plug-ins and mixing in the Pro Tools environment. Build sessions that include multitrack recordings of live instruments, MIDI sequences, virtual instruments, audio loops and beats. Practical experience with examples from major label recording artists and feature films. Understanding menus, windows, preferences and system configurations for Pro Tools in home studios and professional video facilities. Introduction to automation, dialog editing and audio post production for film and video. Required for Avid Pro Tools Certification.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 70B  PRO TOOLS 110-AVID  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 82B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 70C  PRO TOOLS 201-AVID  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 82C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 70D  PRO TOOLS 210M-AVID  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 82D.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Avid Pro Tools Certified course completes skills needed to operate sophisticated Pro Tools systems in professional music production environments. Music production techniques, including MIDI, loop editing, sampling in Pro Tools, Beat Detective, drum replacement and augmentation, final mixing and mastering. Collaborate workflows between home studios and commercial recording facilities. Pro Tools keyboard shortcuts for increased efficiency. Practical examples and experience with exercise files from professional recording artists. Successful completion achieves Avid Pro Tools Operator Music Certification.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 70E  PRO TOOLS 210P-AVID  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 82E.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Synchronizing Pro Tools for audio post production with film, video and multimedia. Recording and editing ADR (automated dialog replacement), music, sound effects and multichannel audio. Mixing stereo and surround sound formats synchronized to digital picture. Layback and export options for final delivery to broadcast industry formats including Quicktime and Avid media. Practical experience with examples from feature films, documentaries and TV commercials. Successful completion achieves Avid Pro Tools Operator Post Certification.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 70F  PRO TOOLS 310M-AVID  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 82G.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Advanced operation of Pro Tools in a professional music production environment. Audio recording, editing, MIDI, virtual instruments, final mixdown, automation and mastering techniques. Integration of Pro Tools shortcuts and equipment configurations for increased efficiency in recording studio facility workflows. Hands-on experience with examples from major label recording artists, producers and mix engineers. Successful completion achieves Avid Pro Tools Expert Level Music Certification.
FHGE: Non-GE Applicable  Transferable: CSU
MTEC 70G  PRO TOOLS 310P-AVID CERTIFICATION

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 72A  PRODUCING MUSIC WITH REASON

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 66B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Creating and editing digital audio with Pro Tools and Reason. Introduction to Reason’s virtual instruments including Dr. Rex, Subtractor, Malstrom, Thor, Redrum and NN-XT. Songwriting, musical composition, and the basic elements of music (pitch, rhythm, harmony, style and form) as they relate to contemporary music. Introduction to synthesis and digital processing techniques. Integrate Reason and Pro Tools using ReWire, Pro Tools MIDI Editor and the Pro Tools Mixer.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 72B  PRODUCING MUSIC WITH ABLETON LIVING

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 66E.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Producing music with Ableton Live software. Compose, record, remix, impose, produce and edit music. Study Ableton Live interface, edit audio, use plug-ins, MIDI sequencing and realtime mixing techniques. Compile live sets from audio clips, loops, samples in realtime and create songs in a variety of styles including R&B, Hiphop, Trance, Drum and Bass, and House Music. Integrate Ableton Live with Pro Tools for final mixing and delivery to dance clubs, radio stations and iTunes.
FHGE: Non-GE Applicable  Transferable: CSU

MTEC 72C  PRODUCING MUSIC WITH LOGIC PRO X

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 66F.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Producing music with Apple Logic Pro software. Understanding the Logic Pro interface, windows and editors, navigation, key commands and screen- sets. MIDI editing, MIDI real-time control, audio recording and editing, and working with QuickTime video. Explore Logic Pro software instruments, including the ES2, EXS-24, Sculpture, UltraBeats, subtractive synthesizers and vintage instruments. Study critical listening examples with interactive demos and tutorials. Elements of production design, music composition and song form, arrangement tools and mixing techniques.

MTEC 80A  MUSIC BUSINESS

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 50A.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Study of legal and business aspects of the music industry. Emphasis on publishing, licensing, and promotion. Copyright law, interaction between songwriters and music publishers, record companies, distributors and the rules that govern them. How music is licensed, service marks, trademarks and patents. The role of lawyers, agents, personal managers, producers and promoters. Licensing and copyright of intellectual properties in the growing multimedia industry and the Internet. Synchronization of music in film, video and television. Career development and how major/independent labels market and distribute media.

MTEC 80B  ENTERTAINMENT LAW & NEW MEDIA

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 50B.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
In-depth study and discussion of entertainment law as it applies to the emerging new media market and the music industry. Internet sales and distribution for new media, file sharing, licensing for the web, and digital copyright considerations. Promotional packages, web site development, delivery systems, career promotion strategies, contracts and touring. In-depth analysis of contracts and regulations/potential of starting an independent media production company, record label, or online retail site. Sampling licenses/international copyright law and publishing.

MTEC 80C  BASICS OF MUSIC PUBLISHING

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 18, 51, or 59.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Prepares the student to navigate the music publishing business by eliminating the legalese and explaining the business in everyday language. Class includes writing original songs for review. Active listening and constructive critiquing of original student compositions.

MTEC 82A  CAREERS IN MUSIC TECHNOLOGY

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 50C or 65.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
An overview of the music technology industry and career opportunities. Study degree and certification programs that lead to job positions in the content creation industry. Develop advertising and social media marketing skills to promote and brand artists and producers. Learn entrepreneurial strategies to advance student’s career and collaborate with professionals. Apply music technology concepts to a wide variety of fields, including software development, sound design, video production, game audio, the record industry, manufacturing and live performance. Explore internship positions. Develop portfolios of content designed to enter the workforce or transfer to additional degree programs. Guest lectures from local industry professionals; field trips to studios, production facilities and high tech companies.

MUSIC BUSINESS

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 50A.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Study of legal and business aspects of the music industry. Emphasis on publishing, licensing, and promotion. Copyright law, interaction between songwriters and music publishers, record companies, distributors and the rules that govern them. How music is licensed, service marks, trademarks and patents. The role of lawyers, agents, personal managers, producers and promoters. Licensing and copyright of intellectual properties in the growing multimedia industry and the Internet. Synchronization of music in film, video and television. Career development and how major/independent labels market and distribute media.

MUSIC BUSINESS

FHGE: Non-GE Applicable  Transferable: CSU
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 50B.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Study of legal and business aspects of the music industry. Emphasis on publishing, licensing, and promotion. Copyright law, interaction between songwriters and music publishers, record companies, distributors and the rules that govern them. How music is licensed, service marks, trademarks and patents. The role of lawyers, agents, personal managers, producers and promoters. Licensing and copyright of intellectual properties in the growing multimedia industry and the Internet. Synchronization of music in film, video and television. Career development and how major/independent labels market and distribute media.
MTEC 88B MODERN SONG COMPOSITION 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 58B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Workshop course for intermediate songwriters that focuses on contemporary and songwriting methodology. Different songwriting components and structures are presented. Students are assigned weekly songwriting projects and are expected to submit finished songs with all the necessary components. Course includes analytical listening and discussion of various songwriting styles. Class is appropriate for medium levels of songwriting competency.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 88C ADVANCED SONG STRUCTURE 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 58C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Workshop course for advanced songwriters that focuses on higher-level topics such as Self Criticism, Rewriting and Co-Writing. Demonstrations of the practical use of technique and an understanding of the works of the most accomplished professional songwriters. Class is appropriate for advanced levels of songwriting competency.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 82B MARKETING YOUR MUSIC 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 60C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Post Production, manufacturing, graphic design, marketing and managing all the aspects of a CD release from the mastering of an audio recording to sales and promotions of the final product. Creating a business, a publishing company, obtain copyrights for sampled audio or works of other artists, protect and promote original music. Create an image, photography and press kits for promotional campaigns, marketing, merchandise and sales. Making artistic and business decisions, working with manufacturing companies and graphic artists to create the final product for sale.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 82C INTRODUCTION TO THE VIDEO GAME BUSINESS 3.5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 50D.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2.5 hours lecture, 3 hours laboratory. (66 hours total per quarter.)
Introduction to the video game business including how games are designed, manufactured, marketed and distributed. Examines the differences between game publishers and game developers. Breaks down different career paths in the industry and how their roles are integrated such as producers, artists, programmers, marketers, testers, etc. Covers the various market places for games and how they differ.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 84A MUSIC & MEDICINE 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 83A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Introduction to the field of music therapy and the creative powers of sound. Survey the history of the American Music Therapy Association as applied by practicing music therapists. Study diverse styles of music, including classical, jazz, blues, pop, hip-hop, new age and world music used as a transformative force to enhance social, emotional, educational, behavioral development and pain management. Apply music therapy concepts to compose and produce original music. Develop music making skills with drumming, group songwriting, lyric analysis, guided relaxation, movement, improvisation and original compositions integrated with the latest music software technologies, including Pro Tools and Virtual Instruments. Study prevention of injury and maintenance of health for musicians and performing artists. Survey careers in the music therapy industry, including degrees, certifications and multi-media production applications.
FHGE: Non-GE Applicable Transferable: CSU

MTEC 88A SONGWRITER'S WORKSHOP 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 58A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Workshop course for beginning songwriters that focuses on basic songwriting styles and techniques. Different songwriting basic methods are presented. Students are assigned weekly songwriting projects. Class is appropriate for basic levels of songwriting competency.
FHGE: Non-GE Applicable Transferable: CSU
NCBS 405 SUPPLEMENTAL INSTRUCTION: 0 Units
PHYSICAL SCIENCE, MATH & ENGINEERING

Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade

Unlimited Repeatability.

60-360 hours total.

An open-entry, open-exit course for students who seek academic support, through supplemental instructions and use of computers, to fill in missing prerequisite knowledge and strengthen skills developed in a referring course or courses as follows: ACTG 1A-C, 1B-H, 51A-C, 52, 53, 54A-D, 56, 57, 58A-C, 75, 76; ANTH 1; ASTR 10A-B, 10BH, 10L, 54H; BIOI 1A-D, 8, 9, 10, 12, 13, 14, 15, 40A-C, 41, 45; CHEM 1A-C, 1AH-BH, 12A-C, 12AL-CL, 13AH-CH, 25, 30A-B; C S 1A-C, 1AH, 1M, 1M, 2A-C, 2M, 3A-C, 3M, 10, 18, 20A, 21A-B, 22A, 25A-B, 31A, 40A, 49, 50A-E, 52A-C, 53A-D, 54B, 54D, 56B, 60C, 63A, 64A, 71A, 80A, 81A, 82A, 84A-B; ECON 1A-B, 9, 9H, 25, 54H; ENGR 6, 10, 11, 35, 37, 37L, 40, 45, 47, 49, 70R; GEOG 1; MATH 1A-D, 1AH-BH, 1AH-PBH, 2A-B, 10, 12, 17, 22, 42, 44, 48A-C, 70R, 105, 180, 217, 248A; NCBS 403A-B; PHYS 2A-C, 2AM-CM, 4A-D, 6, 12, 70R.

FHGE: Non-GE Applicable Transferable: None

NON-CREDIT: BIOLOGICAL & HEALTH SCIENCES

Language Arts
650.949.7249 foothill.edu/bhs/

NCBH 400 SUPPLEMENTAL INSTRUCTION: 0 Units
BIOLOGICAL & HEALTH SCIENCES

Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade

Unlimited Repeatability.

36-360 hours total.


FHGE: Non-GE Applicable Transferable: None

NON-CREDIT: COLLEGE SKILLS

Language Arts
650.949.7250 foothill.edu/la/

NCCS 405 COMMUNICATION & CULTURE

Degree & Credit Status: Non-degree-applicable basic skills course
Grade Type: Non-credit course that receives no grade

Unlimited Repeatability.

60 to 360 hours total.

An open-entry, open-exit course for students who seek academic support in conversational English and discussing cultural topics. Instruction and/or review of skills, such as pronunciation, self-repair, practicing small talk, and discussing issues of cultural interest, through supplemental instruction developed in a referring course or courses as follows: ENGL 1A, 1B, 1C, 1S & 1T, 110, 209, 242A, 242B, 246A; ESLL 125, 235, 236, 237.

FHGE: Non-GE Applicable Transferable: None

NON-CREDIT: BIOLOGICAL & HEALTH SCIENCES

Language Arts
650.949.7249 foothill.edu/bhs/

NCEN 400 COMMUNICATION & CULTURE

Degree & Credit Status: Non-degree-applicable basic skills-3 course
Grade Type: Non-credit course that receives no grade

Unlimited Repeatability.

5 hours lecture. (60 hours total per quarter.)

Introduction to college-level English coursework, providing awareness of and access to college resources and pathways, and instruction in and review of reading comprehension, writing, test-taking and study strategies. Students develop techniques for understanding, discussing and writing about college-level texts; practice sentence-combining, grammar, and mechanics; reflect on their own reading and writing process; evaluate and create strategic approaches for college-level assignments; and learn tactics for improved test-taking. Emphasis is placed on developing positive attitudes and methods when tackling challenging texts and high-stakes writing assignments, such as timed in-class exams or the English placement test. Focus on collaboration with instructors, counselors, embedded tutors, and fellow students, to build confidence and gain the tools to succeed in college.

FHGE: Non-GE Applicable Transferable: None

NON-CREDIT: ENGLISH

Language Arts
650.949.7249 foothill.edu/english/

NCEN 400 ENGLISH BRIDGE

Degree & Credit Status: Non-degree-applicable basic skills-3 course
Grade Type: Non-credit course that receives no grade

Unlimited Repeatability.

5 hours lecture. (60 hours total per quarter.)

Introduction to college-level English coursework, providing awareness of and access to college resources and pathways, and instruction in and review of reading comprehension, writing, test-taking and study strategies. Students develop techniques for understanding, discussing and writing about college-level texts; practice sentence-combining, grammar, and mechanics; reflect on their own reading and writing process; evaluate and create strategic approaches for college-level assignments; and learn tactics for improved test-taking. Emphasis is placed on developing positive attitudes and methods when tackling challenging texts and high-stakes writing assignments, such as timed in-class exams or the English placement test. Focus on collaboration with instructors, counselors, embedded tutors, and fellow students, to build confidence and gain the tools to succeed in college.

FHGE: Non-GE Applicable Transferable: None
NCEN 401A BRIDGE TO TRANSFER 0 Units

Degree & Credit Status: Non-degree-applicable non-credit course
Advisory: When enrolled in ENGL 1A, concurrent enrollment in NCEN 401A is required for students who do not meet the prerequisite requirement for ENGL 1A.
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
2 hours lecture. (24 hours total per quarter.)
This course incorporates and contextualizes basic skills reading and writing strategies aligned with transfer level coursework. When taken as a corequisite to ENGL 1A, students receive additional basic skills support for success in ENGL 1A by practicing and reinforcing critical reading, thinking, and writing skills to engage further in the processes of expository and argumentative writing.
FHGE: Non-GE Applicable Transferable: None

NCEN 442A CRITICAL THINKING: 0 Units
STUDENT-MANAGED PORTFOLIO DEVELOPMENT

Degree & Credit Status: Non-degree-applicable non-credit course
Advisory: When enrolled in ENGL 1T, concurrent enrollment in NCEN 442A is required; otherwise, no corequisite is required.
Grade Type: Pass/No Pass Only
Unlimited Repeatability.
2 hours lecture. (24 hours total per quarter.)
A survey of basic theory, design, and implementation strategies for the student-managed formative portfolio. Students write at least 750 words, with emphasis on the reflective and evaluative processes necessary for portfolio development. Practice in managing and maintaining the information and artifacts of a portfolio as a comprehensive analysis of the student learning experience. Use of portfolio development to increase meta-cognitive awareness of the integration between reading and writing processes; the student’s location within discourse communities, including the campus community; and the behaviors necessary for college success across disciplines.
FHGE: Non-GE Applicable Transferable: None

NCEN 442B CRITICAL THINKING: 0 Units
PORTFOLIO MANAGEMENT & PUBLICATION

Degree & Credit Status: Non-degree-applicable non-credit course
Advisory: When enrolled in ENGL 1T, concurrent enrollment in NCEN 442B is required; otherwise, no corequisite is required.
Grade Type: Pass/No Pass Only
Unlimited Repeatability.
2 hours lecture. (24 hours total per quarter.)
Application of basic theory, design, and implementation strategies for the student-managed summative portfolio. Students write a total of at least 750 words, with emphasis on the reflective and evaluative processes necessary to enable them to meet the objectives of transfer level courses. Management and publication of the artifacts of a summative portfolio as a comprehensive demonstration of the student learning experience across the curriculum. Use of portfolio publication to demonstrate meta-cognitive awareness of the integration between reading and writing processes; of the student’s location within discourse communities, including the campus community; and of the behaviors necessary for college success. Students will demonstrate ability to transfer knowledge and learning across disciplines.
FHGE: Non-GE Applicable Transferable: None

NCEN 400 BRIDGE TO COLLEGE 0 Units

Degree & Credit Status: Non-degree-applicable non-credit course
Advisory: Completion of the adult education course sequence or test score above 247 on the CASAS Level C Reading test.
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
5 hours lecture. (60 hours total per quarter.)
A bridge to college course for non-native speakers of English that focuses on the development of English language skills within the context of the culture of the college classroom: selecting and registering for classes, reading and understanding the syllabus, completing assignments and meeting deadlines, taking quizzes and test, and classroom communication skills; the assessment of skills, exploration of life paths and the resources offered by the community college; the development of basic digital literacy skills to access information on the internet.
FHGE: Non-GE Applicable Transferable: None

NCEL 401 ESL FOR CHILD CARE 0 Units

Degree & Credit Status: Non-degree-applicable basic skills-3 course
Advisory: When enrolled in ENGL 1A, concurrent enrollment in NCEN 401A is required for students who do not meet the prerequisite requirement for ENGL 1A.
36 hours total.
Introduction for the adult English-learner to the community college campus and requirements for successful studies, and to prepare ESL students for successful transition to credit college-level coursework. Focus will be on listening and speaking activities in the classroom, including note-taking and class participation.
FHGE: Non-GE Applicable Transferable: None

NCEL 403A TRANSITIONING TO COLLEGE 0 Units
ESL PART I

Degree & Credit Status: Non-degree-applicable basic skills-4 course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
36 hours total.
An introduction for the adult English-learner to the community college campus and requirements for successful studies, and to prepare ESL students for successful transition to credit college-level coursework. Focus will be on the development of oral communication skills needed for success in credit Child Development courses. Emphasis on practice of listening, speaking, reading and writing skills necessary in a typical credit-level child development course. Skills will be taught within the context of common child development topics such as age-appropriate development and behavioral issues. Modified to meet the needs of students in the child development program who need assistance gaining college level skills.
FHGE: Non-GE Applicable Transferable: None

NCEL 403B TRANSITIONING TO COLLEGE 0 Units
ESL PART II

Degree & Credit Status: Non-degree-applicable basic skills-4 course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
3 hours lecture. (36 hours total per quarter.)
Assists the adult English-learner to navigate the community college campus and requirements for successful studies, and prepares ESL students for successful transition to credit college-level coursework. Focus will be on the development of oral communication skills needed in and outside the classroom for academic success.
FHGE: Non-GE Applicable Transferable: None
NCEL 405 INTRODUCTION TO COMPUTER & INTERNET LANGUAGE FOR ESL 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Advisory: One of the following NCEL level 1 courses is recommended: NCEL 411, 412 or 413.
Grade Type: Non-credit course that receives no grade
48 hours lecture total.
An introductory course for the adult English-learner to the computer and internet language needed to be successful on the community college campus and in college-level coursework. Primary focus is on developing language to communicate basic computer problems and directions for basic computer tasks, through listening, speaking, reading and writing activities in the classroom.
FHGE: Non-GE Applicable Transferable: None

NCEL 411 ADVANCED-BEGINNING ENGLISH AS A SECOND LANGUAGE I 0 Units
Degree & Credit Status: Non-degree-applicable basic skills-6 course
Grade Type: Non-credit course that receives no grade
10 hours lecture. (120 hours total per quarter.)
Introductory advanced-beginning level integrated skills course for learners of English as an additional language. Focus is on developing a basic level of grammar and vocabulary through listening, speaking, reading and writing so that learners can communicate with other English speakers in and outside of the classroom.
FHGE: Non-GE Applicable Transferable: None

NCEL 412 ADVANCED-BEGINNING ENGLISH AS A SECOND LANGUAGE II 0 Units
Degree & Credit Status: Non-degree-applicable basic skills-6 course
Grade Type: Non-credit course that receives no grade
10 hours lecture. (120 hours total per quarter.)
Continuation of the advanced-beginning level integrated skills course for learners of English as an additional language. Focus on developing a basic level of grammar and vocabulary through listening, speaking, reading and writing so that learners can communicate with other English speakers in and outside of the classroom.
FHGE: Non-GE Applicable Transferable: None

NCEL 413 ADVANCED-BEGINNING ENGLISH AS A SECOND LANGUAGE III 0 Units
Degree & Credit Status: Non-degree-applicable basic skills-6 course
Grade Type: Non-credit course that receives no grade
10 hours lecture. (120 hours total per quarter.)
Final advanced-beginning level integrated skills course for learners of English as an additional language. Focus on developing a basic level of grammar and vocabulary through listening, speaking, reading and writing so that learners can communicate with other English speakers in and outside of the classroom.
FHGE: Non-GE Applicable Transferable: None

NCEL 421 INTERMEDIATE ENGLISH AS A SECOND LANGUAGE I 0 Units
Degree & Credit Status: Non-degree-applicable basic skills-5 course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
10 hours lecture. (120 hours total per quarter.)
Introductory intermediate level integrated skills course for learners of English as an additional language who already have a basic level of speaking, listening, reading and writing. Focus assists learners to advance in their development of grammar and vocabulary through listening, speaking, reading and writing.
FHGE: Non-GE Applicable Transferable: None

NCEL 422 INTERMEDIATE ENGLISH AS A SECOND LANGUAGE II 0 Units
Degree & Credit Status: Non-degree-applicable basic skills-5 course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
10 hours lecture. (120 hours total per quarter.)
This is a continuation of the intermediate level integrated skills course for learners of English as an additional language who already have a basic level of speaking, listening, reading and writing. The focus of this course is to help learners advance in their development of grammar and vocabulary through listening, speaking, reading and writing.
FHGE: Non-GE Applicable Transferable: None

NCEL 423 INTERMEDIATE ENGLISH AS A SECOND LANGUAGE III 0 Units
Degree & Credit Status: Non-degree-applicable basic skills-5 course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
10 hours lecture. (120 hours total per quarter.)
This is the final intermediate level integrated skills course for learners of English as an additional language who already have a basic level of speaking, listening, reading and writing. The focus of this course is to help learners advance in their development of grammar and vocabulary through listening, speaking, reading and writing.
FHGE: Non-GE Applicable Transferable: None

NCEL 425 DEVELOPING LISTENING & SPEAKING SKILLS 0 Units
Degree & Credit Status: Non-degree-applicable basic skills-4 course
Advisory: NCEL 413 or higher.
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
10 hours lecture. (120 hours total per quarter.)
Development of ability to listen to everyday English and to participate in everyday conversations. Introduction to academic listening and classroom interactional skills, discussion skills and the language of group work dynamics. Pronunciation work to develop clear speech and comprehension of naturally spoken American English.
FHGE: Non-GE Applicable Transferable: None

NCEL 426 HIGH-INTERMEDIATE GRAMMAR 0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Advisory: Designed for students whose native language is not English; concurrent enrollment in ESLL 227 or NCEL 427 recommended; completion of noncredit ESL sequence or previous ESL coursework at Adult School is recommended.
Grade Type: Pass/No Pass Only
Unlimited Repeatability.
5 hours lecture. (60 hours total per quarter.)
A noncredit high-intermediate English course focusing on verb tenses, gerunds, infinitives, modal verbs in present, past, real present and future conditionals.
FHGE: Non-GE Applicable Transferable: None
### ACADEMIC PURPOSES

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### NON-CREDIT: LANGUAGE ARTS

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### Additional Information

- **Grade Type:** Non-credit course that receives no grade except where noted.
- **Repeatability:** Unlimited where noted.
- **Transferable:** None unless specified.
- **Advisory:** Designed for students whose native language is not English; concurrent enrollment in ESLL 226 or NCEL 426 recommended; completion of noncredit ESL sequence or previous ESL coursework at Adult School is recommended.
- **Placement Test:** Recommended.
- **Classroom Discussions:** Developing skills, understanding concepts, critical thinking, and problem-solving.
- **Classroom Discussions:** Participating in classroom discussions and presentations.
- **Listening/Speaking:** Listening to authentic lectures and participating in classroom discussions and presentations.
- **Writing:** Writing short multi-paragraph compositions that develop focused main ideas using a variety of standard English sentences.
- **Sentence Structures:** Developing focused main ideas using a variety of standard English sentences.
NCLA 407A THE GRAMMAR & RHETORIC OF APPLICATION WRITING
Degree & Credit Status: Non-degree-applicable basic skills course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
60-360 hours total.
This course provides students support and practice in editing and revising the grammar and rhetoric of personal statements for college and scholarship applications. Students will focus on using clear, relevant vocabulary; writing concisely and with correct sentence structure; maintaining appropriate tone; ordering information for impact; and expressing details pertinent to the audience. Students will have the opportunity to improve their critical reading, vocabulary, grammar and writing skills to craft essays typically required in applications to colleges and universities in the U.S.
FHGE: Non-GE Applicable Transferable: None

NCLA 407B WRITING RESUMES & COVER LETTERS
Degree & Credit Status: Non-degree-applicable basic skills course
Advisory: CRLP 7, 73 and 74.
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
60-360 hours total.
This course provides students support and practice in drafting resumes and cover letters. Students will focus on how to choose grammatically correct language that concisely describes work experience in a resume; to use structure that is parallel; and to implement appropriate tone in cover letters or letters of interest for potential jobs.
FHGE: Non-GE Applicable Transferable: None

NCLA 407C WRITING UNDER TIME CONSTRAINTS
Degree & Credit Status: Non-degree-applicable basic skills course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
60-360 hours total.
Offers students strategies, support, and practice in improving their writing skills under pressure (examples include SAT, GRE, TOEFL, and in-class writing assessments). Students will practice how to identify addressing the prompt, brainstorming, organizing their ideas, and writing them clearly and quickly.
FHGE: Non-GE Applicable Transferable: None

NCLA 408 VOCABULARY ACROSS THE DISCIPLINES
Degree & Credit Status: Non-degree-applicable basic skills course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
60-360 hours total.
Offers students strategies for sorting, categorizing, memorizing and applying terminology needed to succeed in a discipline course. Students will employ the use of matrices, charts, flashcards, etc. to effectively use new vocabulary required for an academic course.
FHGE: Non-GE Applicable Transferable: None

NON-CREDIT: PARENTING EDUCATION
Student Resource and Support Programs
650.949.6950 foothill.edu/childdevelopment/

NCP 400A STRONG START FOR CHILDREN 0 Units
I: BIRTH-8 YEARS
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
8 hours total.
Introduces families and caregivers to stages of child development and best practices in parenting, and links students to resources focused on Early Years Development, birth through 8 years old. Emphasis placed on child development, effective communication and discipline, and school and college readiness focused on young children (birth through 8 years). Helps prepare students for credit classes in Child Development. May be offered bilingually.
FHGE: Non-GE Applicable Transferable: None

NCP 400B STRONG START FOR CHILDREN II: NAVIGATING MIDDLE SCHOOL
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
8 hours total.
Introduces families and caregivers to stages of child and adolescent development and best practices in parenting, and links students to resources focused on Middle School Age Development (children ages 10-14 years). Emphasis placed on child development, effective communication and discipline, and school and college readiness focused on Middle School aged children (10-14 years). Helps prepare students for credit classes in Child Development. May be offered bilingually.
FHGE: Non-GE Applicable Transferable: None

NCP 400C STRONG START FOR CHILDREN III: PATHWAYS TO COLLEGE
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
8 hours total.
Introduces families and caregivers to stages of youth and adolescent development and best practices in parenting, and links students to resources focused on High School Age Development (children ages 15-18+ years). Emphasis placed on child development, effective communication and discipline, and school and college readiness focused on High School aged youth (15-18+ years). Helps prepare students for credit classes in Child Development. May be offered bilingually.
FHGE: Non-GE Applicable Transferable: None
NCP 401A  NURTURING HEALTHY CHOICES 0 Units  
I: EARLY YEARS  
Degree & Credit Status: Non-degree-applicable non-credit course  
Grade Type: Non-credit course that receives no grade  
Unlimited Repeatability.  
8 hours total.  
Introduces families and caregivers to healthy feeding and eating practices and best practices in parenting, and links students to resources focused on the Early Years (birth through 8 years). Emphasis placed on family wellness, nutrition and healthy feeding dynamics as related to the child's developmental stages. This course helps prepare students for credit classes in Child Development. May be offered bilingually.  
FHGE: Non-GE Applicable  Transferable: None

NCP 401B  NURTURING HEALTHY CHOICES 0 Units  
II: ADOLESCENT YEARS  
Degree & Credit Status: Non-degree-applicable non-credit course  
Grade Type: Non-credit course that receives no grade  
Unlimited Repeatability.  
8 hours total.  
Introduces families and caregivers to healthy feeding and eating practices and best practices in parenting, and links students to resources. Emphasis placed on family wellness, nutrition and healthy feeding dynamics as related to the child and youth developmental stages. This course helps prepare students for credit classes in Child Development. May be offered bilingually.  
FHGE: Non-GE Applicable  Transferable: None

NCP 402A  THE IMPORTANCE OF FAMILY IN THE LIVES OF CHILDREN 0 Units  
I: EARLY YEARS  
Degree & Credit Status: Non-degree-applicable non-credit course  
Grade Type: Non-credit course that receives no grade  
Unlimited Repeatability.  
8 hours total.  
Introduces families and caregivers to the importance of family in the lives of children and best practices in parenting, and links students to resources. Emphasis placed on family engagement linked to learning and student success; leadership; accessing resources; and navigating systems in multicultural communities. This course helps prepare students for credit classes in Child Development. May be offered bilingually.  
FHGE: Non-GE Applicable  Transferable: None

NCP 402B  THE IMPORTANCE OF FAMILY IN THE LIVES OF CHILDREN 0 Units  
II: ADOLESCENT YEARS  
Degree & Credit Status: Non-degree-applicable non-credit course  
Grade Type: Non-credit course that receives no grade  
Unlimited Repeatability.  
8 hours total.  
Introduces families and caregivers to the importance of family in the lives of adolescents and best practices in parenting, and links students to resources. Emphasis placed on family engagement linked to learning and student success; leadership; accessing resources; and navigating systems in multicultural communities. This course helps prepare students for credit classes in Child Development. May be offered bilingually.  
FHGE: Non-GE Applicable  Transferable: None

NCP 403  BUILDING BRIDGES, OPENING DOORS, RAISING EMOTIONALLY HEALTHY CHILDREN 0 Units  
Degree & Credit Status: Non-degree-applicable non-credit course  
Grade Type: Non-credit course that receives no grade  
Unlimited Repeatability.  
24 hours total.  
A Parents as Partners Series targeted to families and their caregivers, providers and educators serving these families. Provides an understanding of the importance of meeting emotional needs in raising healthy, school-college ready children through parenting and child development, prenatal through adolescence. Completion of this class helps prepare students for credit classes in Child Development. May be offered bilingually.  
FHGE: Non-GE Applicable  Transferable: None

NCSV 400  GERIATRIC HOME AIDE BASICS 0 Units  
Degree & Credit Status: Non-degree-applicable non-credit course  
Grade Type: Non-credit course that receives no grade  
Unlimited Repeatability.  
60 hours total.  
Prepares students to care for ambulatory elderly clients in their own homes with focus on basic clientele needs and skills required to meet those needs. Intended for students pursuing a career as a geriatric home aide. Completion of both NCSV 400 and 401 leads to a noncredit certificate in Geriatric Home Aide.  
FHGE: Non-GE Applicable  Transferable: None

NCSV 401  GERIATRIC HOME AIDE-NUTRITION 0 Units  
Degree & Credit Status: Non-degree-applicable non-credit course  
Grade Type: Non-credit course that receives no grade  
Unlimited Repeatability.  
44 hours total.  
Prepares students to care for ambulatory elderly clients in their own homes. Focus on nutrition, including dietary needs of geriatric and AIDS patients, cultural foods, cooking, and kitchen sanitation. Intended for students pursuing a career as a geriatric home aide. Completion of both NCSV 400 and 401 leads to a noncredit certificate in Geriatric Home Aide.  
FHGE: Non-GE Applicable  Transferable: None
PHARMACY TECHNOLOGY

Biological and Health Sciences
650.949.7538 foothill.edu/pharmtech/

PHT 50 ORIENTATION TO PHARMACY TECHNOLOGY 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PHT 200L.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Orientation to the role and working environment of the pharmacy technician, in both inpatient and outpatient settings. An introduction to the legal responsibilities and technical activities of the pharmacy technician. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

PHT 51 BASIC PHARMACEUTICS 3 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
This course will introduce students to the general concepts of law, legal liability, ethics, honesty and integrity as they relate to performing the responsibilities of a pharmacy technician in accordance with the profession’s code of ethics. In addition, the course covers key laws and regulations governing the practice of pharmacy and also terminology relevant to the profession. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

PHT 52A INPATIENT DISPENSING 3 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
A general study of the usual technician functions associated with an institutional drug distribution system. Practical experience in the manipulative and record-keeping functions of extemporaneous preparations in an inpatient pharmacy. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

PHT 52B ASEPTIC TECHNIQUE & IV PREPARATION 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PHT 52A.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Compounding of sterile products according to the appropriate technique. An introduction to the concepts of sterility and incompatibility. The use of applicable quality assurance processes and performance of work in accordance with the laws, regulations, and standards which govern the preparation of sterile products, with special emphasis on the preparation of parenteral chemotherapy with strict adherence to all precautionary standards. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

PHT 53 AMBULATORY PHARMACY PRACTICE 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
A review of the skills needed to operate effectively in an ambulatory setting, with emphasis on receiving and controlling inventory, processing prescriptions using computerized prescription processing, and medical insurance billing. Customer relations. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

PHT 54A DOSAGE CALCULATIONS A 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PHT 54A.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Calculation of the correct oral and parenteral dosages of drugs using information from prescriptions or medications orders. Accurate determination of the correct amount of ingredients for the compounding of pharmaceutical products from a prescription or medications order. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

PHT 54B DOSAGE CALCULATIONS B 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PHT 54A.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Calculation of the correct oral and parenteral dosages of drugs using information from prescriptions or medications orders. Accurate determination of the correct amount of ingredients for the compounding of pharmaceutical products from a prescription or medications order. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

PHT 55A PHARMACOLOGY A 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: BIOL 14 or equivalent.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Introduction to the general principles of pharmacology and pharmacokinetics, with a focus on the anatomy, physiology and application of pharmacological principles pertaining to the peripheral and central nervous system. Drugs are discussed related to their mechanism of action, indications, adverse effects, contraindications, precautions and drug interactions. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

PHT 55B PHARMACOLOGY B 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PHT 55A.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
A study of the fundamentals of pharmacology with a focus on the anatomy, physiology and application of pharmacological principles related to various body systems and disorders; the cardiovascular system, respiratory system and gastrointestinal system. Drugs are discussed in relation to their mechanism of action, indications, adverse effects, contraindications, precautions and drug interactions. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU
A study of the fundamentals of pharmacology with a focus on the anatomy, physiology and application of pharmacological principles related to various body systems and disorders; the endocrine system, infectious diseases, cancer, the immune system and nutrition. Drugs are discussed in relation to their mechanism of action, indications, adverse effects, contraindications, precautions and drug interactions. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

PHT 56A  DISPENSING & COMPOUNDING A  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PHT 50.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
General preparation of non-sterile solid and liquid pharmaceutical dosage forms for oral and topical use. Practical experience in the manipulative and record keeping functions associated with the compounding and dispensing of prescriptions for ambulatory patients. Study of dosage forms, advantages and disadvantages, uses, storage and packaging of pharmaceutical products. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

PHT 56B  DISPENSING & COMPOUNDING B  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PHT 56A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
General preparation of topical, transdermal, rectal, ophthalmic, and otic pharmaceutical dosage forms. Practical experience in the manipulative and record keeping functions associated with the compounding and dispensing of prescriptions. Study of dosage forms, advantages and disadvantages, uses, storage and packaging of pharmaceutical products. Intended for students in the Pharmacy Technician Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

PHT 58  FUNDAMENTALS OF PHARMACOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: BIOL 40A, 40B and 40C or equivalent.
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T; not open to students with credit in BIOL 46 or 58.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
General principles of pharmacology. Emphasis on drug-receptor interactions, second messenger systems, determinants of drug response, pharmacokinetics, bio transformation and excretion, pharmacogenetics, drug development and legal aspects of drug distribution. Application of pharmacological principles and concepts with emphasis on the various pharmacological classes of drugs in diverse patient populations.

FHGE: Non-GE Applicable Transferable: CSU
PHIL 11         CRITICAL THINKING & WRITING 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: One of the following: ENGL 1A, 1AH, or 1S & 1T.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Develops understanding of informal logic and practical reasoning skills necessary for academic success, including tools needed to analyze information from a variety of sources such as academic essays, philosophic literature, news media and advertising. Focus on skills of argumentation including, but not limited to, elements of an argument, deductive and inductive forms of argumentation, the evaluation of arguments and the recognition of a variety of fallacies. Skills developed through a series of written assignments of increasing scope and difficulty culminating in a sophisticated argumentative essay.
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC

PHIL 22         INTRODUCTION TO SOCIAL & POLITICAL PHILOSOPHY 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Social and political philosophies of classical, modern and contemporary thinkers. Issues of concern to include the justification and structure of the political state, constitution of government, individual rights and distribution of wealth.
FHGE: Humanities
Transferable: CSU/UC

PHIL 33         INTRODUCTION TO SYMBOLIC LOGIC 5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
The use of logic as a tool for constructing, analyzing and evaluating arguments. Topics to be covered will be the basic construction of premises and conclusion to form arguments, common formal and informal fallacies, categorical propositions and syllogisms, propositional logic, natural deduction and predicate logic.
FHGE: Communication & Analytical Thinking
Transferable: CSU/UC
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<td>COMPARATIVE WORLD RELIGIONS: WEST</td>
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<td>PHIL 70R</td>
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<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
<td>Not Repeatable</td>
<td>Letter Grade or Pass/No Pass</td>
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Notes:
- FHGE: Humanities
- Transferable: CSU/UC
- Grade Type: Letter Grade or Pass/No Pass
- Not Repeatable

Additional Information:
- Course Catalog 2020–2021
- Foothill College
- 304

Additional details may be found in the course catalog.
PHOTOGRAPHY

Fine Arts and Communication
650.949.7082 foothill.edu/photo/

Foothill offers photography activity courses in two different family categories. No single course may be repeated. Enrollment is limited to six courses per family within the Foothill-De Anza Community College District. Please refer to the De Anza College Catalog for the corresponding families and courses.

Digital Photography Family: PHOT 4A, 4B, 4C & 72


PHOT 4A         PHOTOSHOP FOR PHOTOGRAPHERS I
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 5 or equivalent; this course is included in the Digital Photography family of activity courses; not open to students with credit in PHOT 65A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to the tools for expressive communication in digital photography using Adobe Photoshop and Adobe Photoshop Lightroom. Development of skills in image capture, enhancement, printing, and web publishing, for both fine art and commercial applications.
FHGE: Non-GE Applicable Transferable: CSU/UC

PHOT 4B         PHOTOSHOP FOR PHOTOGRAPHERS II
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 4A or equivalent experience; this course is included in the Digital Photography family of activity courses; not open to students with credit in PHOT 65B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Intermediate-level exploration with the tools for expressive communication in digital photography using Adobe Photoshop and Adobe Photoshop Lightroom. Development of skills in image capture, enhancement, printing, and web publishing, for both fine art and commercial applications.
FHGE: Non-GE Applicable Transferable: CSU/UC

PHOT 4C         PHOTOSHOP FOR PHOTOGRAPHERS III
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 4B or equivalent; this course is included in the Digital Photography family of activity courses; not open to students with credit in PHOT 65C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Advanced-level exploration with the tools for expressive communication in digital photography using Adobe Photoshop and Adobe Photoshop Lightroom. Development of skills in image capture, enhancement, printing, and web publishing, for both fine art and commercial applications.
FHGE: Non-GE Applicable Transferable: CSU/UC

PHOT 5          INTRODUCTION TO PHOTOGRAPHY
4 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
A survey of the historical and practical aspects of photography as an art form and social document. Students will be introduced to the use of light, composition and communication through images. Significant photographers from a diversity of backgrounds will inspire students in the practice of photography and developing an understanding of the varied uses of the photographic image in our culture, including advertising, journalism, social concern, fine art, and scientific applications.
FHGE: Humanities Transferable: CSU/UC

PHOT 8          PHOTOGRAPHY OF MULTICULTURAL AMERICA
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in PHOT 8H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Examination of photography’s role in shaping ideas about race, class, gender, sexuality and national identity in America. Critical analysis of images from a wide range of genres, including commercial photography, portraiture, social documentary, photojournalism, ethnographic and scientific photography, erotica, and fine-art photography, discussed within their historical and social context.
FHGE: American Cultures & Communities, Humanities Transferable: CSU/UC

PHOT 10         HISTORY OF PHOTOGRAPHY
4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: One of the following: ENGL 1A, 1AH, or 15 & 1T or equivalent; not open to students with credit in PHOT 10H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.

3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
The history of still photography from the earliest investigations of the camera obscura to late 20th century electronic imaging. Emphasis on the role of photographs as a social and cultural force and on our artistic heritage of camera work.
FHGE: Humanities Transferable: CSU/UC
PHOT 10H  HONORS HISTORY OF PHOTOGRAPHY  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in PHOT 10.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
The history of still photography from the earliest investigations of the cam-
era obscura to late 20th century electronic imaging. Emphasis on the role
of photographs as a social and cultural force and on our artistic heritage
of camera work. The honors course offers an enriched and challenging
experience for the more talented student, including deeper content, more
rigorous grading, and more demanding and creative assignments requiring
application of higher-level thinking, writing, and communication skills.
FHGE: Humanities  Transferable: CSU/UC

PHOT 11  CONTEMPORARY ISSUES IN PHOTOGRAPHY  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in PHOT 11H or 59.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Survey of contemporary issues in photography. Critical theory and other
issues surrounding contemporary photographic practices are explored
through the style and content of work by selected contemporary photog-
raphers. Censorship, copyright, appropriation, and other current issues
affecting the contemporary photographer are discussed. The interplay
of traditional and digital photography and how it affects our concepts of truth,
reality, society, and culture.
FHGE: Humanities  Transferable: CSU/UC

PHOT 11H  HONORS CONTEMPORARY ISSUES IN PHOTOGRAPHY  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in PHOT 11 or 59.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Survey of contemporary issues in photography. Critical theory and other
issues surrounding contemporary photographic practices are explored
through the style and content of work by selected contemporary photog-
raphers. Censorship, copyright, appropriation, and other current issues
affecting the contemporary photographer are discussed. The interplay
of traditional and digital photography and how it affects our concepts of truth,
reality, society, and culture. The honors course offers an enriched
and challenging experience for the more talented student, including deeper
content, more rigorous grading, and more demanding and creative assign-
ments requiring application of higher-level thinking, writing, and communi-
cation skills.
FHGE: Humanities  Transferable: CSU/UC

PHOT 22  PHOTOJOURNALISM  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 72 or equivalent; this course is included in the Photogra-
phy-Professional Practices family of activity courses; not open to students
with credit in PHOT 63.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Instruction in basic skills needed for effective online and print photography
for use in newspapers, magazines, web journals and blogs, with emphasis on
developing appropriate behavior and craft needed in meeting deadlines for
photojournal publication. Assignments include news photographs, human
interest and feature pictures, and the picture story. Special emphasis on
print quality, picture editing, layout design, image content and captioning.
Introduction to digital capture, preparation of files and transmittal of pho-
tographs, and video and sound recording techniques.
FHGE: Non-GE Applicable  Transferable: CSU/UC

PHOT 57A  PHOTOGRAPHIC PORTFOLIO DEVELOPMENT  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 4B or instructor's permission.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Professional practices course for the organization and assembly of a
photographic portfolio from concept to final presentation. This intensive
advanced class requires building of a group of photographic works that
function both individually and as a group. Goal setting for the vocational
and transfer students and packaging work for school, job and exhibition
applications will be a priority. Concerns will include how to build a portfolio
and organize images that communicate clearly, how to utilize technical exe-
cution for effective communication and techniques for giving and receiving
feedback to further photographic projects.
FHGE: Non-GE Applicable  Transferable: CSU

PHOT 57B  PROFESSIONAL PRACTICES IN PHOTOGRAPHY  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 57A or instructor's permission.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Organization of photographic work from prior classes and projects to meet
individual goals, including transfer, exhibition and employment. Develop-
ment of professional materials, such as resume, website and business cards,
as well as finalization of a photographic portfolio. Develop support materials
for applications and exhibitions. Share work with photography community
through exhibition or other methods of display.
FHGE: Non-GE Applicable  Transferable: CSU

PHOT 68C  STUDIO LIGHTING TOPICS IN PHOTOGRAPHY  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 5; this course is included in the Photography-Professional
Practices family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Investigation of a specific aspect or topic of photography through discus-
sion and demonstration by the instructor(s).
FHGE: Non-GE Applicable  Transferable: CSU
PHOT 68E   LECTURE TOPICS IN PHOTOGRAPHY  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 5; this course is included in the Photography-Professional Practices family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s).
FHGE: Non-GE Applicable  Transferable: CSU

PHOT 70R   INDEPENDENT STUDY IN PHOTOGRAPHY  1 Unit
PHOT 71R   2 Unit
PHOT 72R   3 Unit
PHOT 73R   4 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in photography beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU

PHOT 71   THE PHOTOGRAPHIC BOOK  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 4A, 5, or equivalent experience; this course is included in the Photography-Professional Practices family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Exploration of the book for the display and sharing of photographic imagery, including the history of the photographic book and its uses in fine art, commercial and documentary photography. Use of appropriate technology for creation of photographic books, including digital image editing, color correction, graphic design and typography. Investigation of sequencing and presentation of photographs in book format for communication.
FHGE: Non-GE Applicable  Transferable: CSU

PHOT 72   LIGHTROOM & PHOTOGRAPHIC DESIGN  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 5 or equivalent experience; this course is included in the Digital Photography family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Develop intermediate photographic skills with the use of Adobe Photoshop Lightroom and photographic design techniques. Evaluate and utilize current methods of workflow, including archiving, file management, development, image publishing, beginning color management and printing. Build skills in composition, design, project editing and visual communication. Utilize design principles to create images that communicate effectively.
FHGE: Non-GE Applicable  Transferable: CSU

PHOT 74A   STUDIO PHOTOGRAPHY TECHNIQUES I  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 5; this course is included in the Photography-Professional Practices family of activity courses; not open to students with credit in PHOT 74.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction and overview to studio lighting, digital medium format cameras, exploration of photographic practices in a studio environment; emphasis on developing effective skills and techniques necessary to begin a career in studio photography.
FHGE: Non-GE Applicable  Transferable: CSU

PHOT 74B   STUDIO PHOTOGRAPHY TECHNIQUES II  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of one or more of the following courses: PHOT 4A, 5, 72, 74A; this course is included in the Photography-Professional Practices family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
This course follows PHOT 74A and is intended to teach intermediate level skills in studio photography. Proper and creative use of digital small and medium format cameras, and lighting in a studio environment. Emphasis on developing the specific photographic skills, techniques and business practices necessary for success in a photography career path that is chosen by the student in consultation with the instructor, e.g., wedding, product, portrait, editorial, still-life or illustration, etc.
FHGE: Non-GE Applicable  Transferable: CSU

PHOT 74C   STUDIO PHOTOGRAPHY TECHNIQUES III  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 5; this course is included in the Photography-Professional Practices family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
This course follows PHOT 74A and 74B. Emphasis on acquiring advanced skills and techniques in studio lighting and studio operations. Students work towards the creation of a focused portfolio suitable for employment as a photography assistant, the creation of a small business/sole proprietorship in wedding, portrait, editorial, advertising, and/or fine art studio photography.
FHGE: Non-GE Applicable  Transferable: CSU

PHOT 78A   LANDSCAPE FIELD STUDY IN PHOTOGRAPHY  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: PHOT 5; not open to students with credit in PHOT 78.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Investigates historical and contemporary approaches to photographing landscape. Through field trips, lecture and demonstrations, students will learn about ways that other photographers have interpreted the landscape. Photographic techniques will enable students to develop a personal approach to photographing the landscape.
FHGE: Non-GE Applicable  Transferable: CSU
PHED 10A  AQUATICS: LEVEL I, BEGINNING SWIMMING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Aquatic family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Introduction to swimming and safety skills. Includes physical and mental adjustment to water, buoyancy and body position, survival skills, and basic swim strokes.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 10B  AQUATICS: LEVEL II, INTERMEDIATE SWIMMING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Aquatic family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
A continuation of development of swim and safety skills beyond the beginning phase. Includes physical and mental adjustment to water, buoyancy and body position, survival skills, and the basic competitive swim strokes. Includes intermediate water safety skills and knowledge leading to safe practices while in, on or about the water.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 10C  AQUATICS LEVEL III, MASTERS SWIMMING/ADVANCED SWIM TRAINING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Aquatic family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Advanced programs and concepts of swim strokes, competitive flip turns, and endurance training for competition.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 11A  WATER EXERCISE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Aquatic family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
A unique non-impact form of aquatic exercise to improve cardiovascular endurance, muscular strength, endurance, and flexibility while wearing a flotation belt to maintain an upright position in deep water.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 11B  AQUATIC FITNESS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Aquatic family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
An aerobic water fitness program applying the basic principles of exercise and dynamics of water movement.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 11C  WATER AWARENESS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Aquatic family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Water awareness for non-swimmers, including basic water safety information as well as elementary swim techniques.
FHGE: Lifelong Understanding Transferable: CSU/UC
PHED 13  BEGINNING WATER POLO  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Team Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Basic water polo skills and techniques, including ball handling, dribbling, passing, shooting and blocking. Includes an introduction to the rules of the game as well as basic tactical strategies for offense and defense.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 13A  INTERMEDIATE WATER POLO  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Team Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Intermediate water polo skills and techniques, including ball handling, dribbling, passing, shooting, and blocking. Includes a review of the rules of the game, team offense, team defense, developing players at specific positions and an introduction to specific team plays and strategies.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 13C  WATER POLO: GAME SKILLS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Team Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Practice and preparation for competitive water polo, emphasizing water polo skills, fundamentals and strategies of the game, position specific training and full body preparation.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 14  NUTRITIONAL ASSESSMENT & FITNESS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Strength Development family of activity courses; not open to students with credit in H P 84X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
A study of nutritional concepts, body fat assessment and work-out programs for lifetime fitness.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 15A  BEGINNING PICKLEBALL  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Strategy and competition for both singles and doubles pickleball play.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 15B  INTERMEDIATE PICKLEBALL  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Focus on the strategies of singles and doubles play. Includes introduction to serving long and short, forehands smashes, drop shots, angle play, and doubles formations.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 15C  ADVANCED PICKLEBALL  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Focus on the strategies of singles and double play, including serving with a variety of spins, forehand and backhand smashes, drop shots, angle play and doubles formations. Strong emphasis on fitness, flexibility and nutrition. How to design a point, set and match will also be a main focus.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 17A  BEGINNING KARATE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Combatives family of activity courses; not open to students with credit in H P 84X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Introduction to beginning skills and techniques of karate. Includes punching, blocking, striking and kicking techniques.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 17B  INTERMEDIATE KARATE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Combatives family of activity courses; not open to students with credit in H P 84A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Intermediate karate skills and techniques. Analysis and application of biomechanics, individual and group interaction, and uses of karate.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 17C  ADVANCED KARATE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Combatives family of activity courses; not open to students with credit in H P 84B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Intermediate karate skills and techniques. Analysis and application of biomechanics, individual and group interaction, and uses of karate.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 17D  BJJ JIU-JITSU  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Combatives family of activity courses; not open to students with credit in H P 84C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Intermediate karate skills and techniques. Analysis and application of biomechanics, individual and group interaction, and uses of karate.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 18  BEGINNING TAI CHI (TAIJI)  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Combatives family of activity courses; not open to students with credit in H P 84C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Introduces the fundamentals and principles of Taijiquan. Emphasizes body alignment in stillness with natural breathing and its relationship to mind-body awareness. Traditional Chen-style Taijiquan Lao Jia (Old Frame) first routine and the standing posture with breathing exercises (Wuji Qigong) will be practiced to facilitate the development of basic body strength and mind-body coordination.
FHGE: Lifelong Understanding  Transferable: CSU/UC
FOR FITNESS

PHED 19B       INTERMEDIATE TAI CHI (TAIJI)       1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Combatives family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Focuses on the understanding and transition of body alignment in stillness to dynamic alignment during the Taijiquan form practice. Emphasizes maintaining the body alignment during movements and through motion with natural breathing. External movements guiding the internal energy flow exercises (Hun Yuan Qigong) and a series of connected spiral movements (Silk Reeling Exercises) will be taught in this class as well as to mind body awareness. Practice of second section of Chen-style Taijiquan Lao Jia (Old Frame) first routine to facilitate the development of the body-ground connection.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 19D       ADVANCED KICKBOXING FOR FITNESS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Combatives family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Emphasizes high-intensity and moderate- to high-impact advanced level kickboxing sequences using complex and choreographed movements.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 19C       INTERMEDIATE KICKBOXING FOR FITNESS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Combatives family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Focuses on punching and kicking combination drills, with fewer breaks or interruptions, and with an increase in intensity, impact and duration. An emphasis is placed on intermediate level footwork and body mechanics to improve coordination, reaction time and balance.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 20B       INTERMEDIATE MAT PILATES 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Flexibility & Stability family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Intermediate level mat Pilates, focusing on fluid transitions between stretching and strengthening intermediate exercises to improve coordination, endurance, posture, flexibility and balance for a more streamlined shape. Focuses on neutral pelvic placement and increasingly challenging series of exercises considered intermediate.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 20A       BEGINNING MAT PILATES 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Flexibility & Stability family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Beginning Pilates stresses the fundamentals and principles of the Pilates method. Traditional mat Pilates exercises and principles are combined to achieve body control, core strength and joint mobility.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 21A       BEGINNING HATHA YOGA 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Flexibility & Stability family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Principles and methods of practice in the discipline of beginning hatha yoga. Emphasis on the practice and demonstration of the beginning postures and the usage of hatha yoga for increased focus and concentration, integration of personal values and actions, and integration of mind, body and spirit.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 21       FOUNDATIONS OF YOGA 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Flexibility & Stability family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Introduction to the fundamentals of yoga, including foundation principles and practices. Emphasis on the demonstration and practice of correct alignment, balance and connection for yoga poses (asanas), yogic locks, and pranayama (breathing techniques) for overall fitness and stress management.
FHGE: Lifelong Understanding  Transferable: CSU/UC
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**Degree & Credit Status:** Degree-applicable credit course

**Advisory:** This course is included in the Flexibility & Stability family of activity courses.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

**3 hours laboratory. (36 hours total per quarter.)**

Intermediate training in yoga, skills and techniques with independent, group, and personalized training. Emphasis is on practice of intermediate asanas (poses) and pranayama (breathing techniques) with the introduction of ujayi breath.

**FHGE: Lifelong Understanding**  **Transferable: CSU/UC**

**PHED 22**

**BEGINNING FLEXIBILITY & MOBILITY**

**Degree & Credit Status:** Degree-applicable credit course

**Advisory:** This course is included in the Flexibility & Stability family of activity courses.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

**3 hours laboratory. (36 hours total per quarter.)**

Increased flexibility enhances physical performance, helps maintain muscle fitness and assists in injury rehabilitation. Intended for individuals with a variety of fitness experience levels. Students must provide their own fitness mat.

**FHGE: Lifelong Understanding**  **Transferable: CSU/UC**

**PHED 22A**

**INTERMEDIATE FLEXIBILITY & MOBILITY**

**Degree & Credit Status:** Degree-applicable credit course

**Advisory:** This course is included in the Flexibility & Stability family of activity courses.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

**3 hours laboratory. (36 hours total per quarter.)**

An intermediate level stretching program emphasizing seated and standing flexibility exercises for the hips, hamstrings, quadriceps, wrists, ankles, shoulders, obliques, and lumbar, thoracic and cervical spine. Complimentary abdominal exercises and standing postures will be introduced to develop balance, tone and endurance.

**FHGE: Lifelong Understanding**  **Transferable: CSU/UC**

**PHED 22B**

**PILATES & YOGA**

**Degree & Credit Status:** Degree-applicable credit course

**Advisory:** This course is included in the Flexibility & Stability family of activity courses.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

**3 hours laboratory. (36 hours total per quarter.)**

Combines basic Pilates mat exercises to strengthen abdominals with full body yoga based stretches for development of improved posture, flexibility, and relaxation. Students must provide their own fitness mat.

**FHGE: Lifelong Understanding**  **Transferable: CSU/UC**

**PHED 22C**

**CORE CONDITIONING**

**Degree & Credit Status:** Degree-applicable credit course

**Advisory:** This course is included in the Flexibility & Stability family of activity courses.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

**3 hours laboratory. (36 hours total per quarter.)**

A combination of Pilates and yoga class designed to improve strength, body control, and coordination. Resistance and stability equipment will be incorporated with abdominal, low back, and full body exercises. Students must provide their own fitness mat.

**FHGE: Lifelong Understanding**  **Transferable: CSU/UC**

**PHED 22D**

**CROSS TRAINING FOR ENDURANCE**

**Degree & Credit Status:** Degree-applicable credit course

**Advisory:** This course is included in the Cardio Fitness family of activity courses.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

**3 hours laboratory. (36 hours total per quarter.)**

Explores the concept of functional training as it applies to the endurance athlete. Students will learn, utilize and understand effective training strategies to promote their own improved performance. Emphasis placed on the application of skills and improved fitness. The importance of proper nutrition to improve performance will also be included.

**FHGE: Lifelong Understanding**  **Transferable: CSU/UC**
PHED 23A  TRAIL HIKING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Cardio Fitness family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
A hiking class that prepares healthy, fit individuals for a final 8-12 mile hike on established trails over moderate to steep terrain.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 23B  DAY HIKING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Cardio Fitness family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
The opportunity to exercise in the great outdoors to gain and improve cardiovascular fitness, muscular strength and endurance through hiking at a fitness pace on the trail.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 24  INTRODUCTION TO GOLF  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Development of golf skills for the intermediate/advanced player, including grip, posture, alignment and swing fundamentals, selection of equipment, knowledge of rules, etiquette and course management.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 24A  SWING ANALYSIS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Using Swing Solutions video technology, the student will identify and correct individual golf swing flaws and design drills to develop skills to improve golf strokes.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 24B  SWING DEVELOPMENT FOR THE EXPERIENCED GOLFER  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Advanced strategies, techniques and rules.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 24C  INTERMEDIATE GOLF COURSE PLAY  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses; not open to students with credit in H P 25DX.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
Intermediate/advanced tennis for competitive play, including multiple game formats (scramble, shotgun and bestball), practice with club selection and “reading” the ball.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 24D  ADVANCED GOLF COURSE PLAY  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
Advanced tennis for competitive play, including covering drills, advanced strategies, techniques and rules.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 25A  SWING ANALYSIS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Students will play an 18 hole golf course with focus on increasing pace of play, development of advanced skills and execution of the golf swing, proper etiquette and strategies for lowering a score and establishing a handicap.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 25B  BEGINNING GOLF COURSE PLAY  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Students are expected to have previously gained an understanding of and proficiency with basic golf swings for a variety of club types; no previous golf course experience is necessary; this course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade Only
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
Students will play an 18 hole round of golf utilizing a variety of swing skills and clubs (e.g., wood, iron, wedge, putter). Both long and short game skills and strategies will be incorporated on the course. Students will apply rules of golf and course etiquette during play.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 26  BEGINNING TENNIS SKILLS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Introduction to beginning tennis play, including basic strokes, drills, rules and etiquette.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 26A  INTERMEDIATE TENNIS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Intermediate/advanced tennis for competitive play, including covering drills, advanced strategies, techniques and rules.
FHGE: Lifelong Understanding Transferable: CSU/UC
PHED 26C  BEGINNING DOUBLES TENNIS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Introduction to doubles tennis play. Includes basic court position, skill drills, and offensive and defensive strategies.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 27B  INTERMEDIATE RUN FOR FITNESS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Cardio Fitness family of activity courses; not open to students with credit in H P 61.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Focus on proper training and running technique, race management, nutrition, prevention and treatments of common running injuries. Intended for the student wishing to improve fitness and running skills.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 27C  INTERMEDIATE WALK FOR HEALTH 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Cardio Fitness family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Development of advanced walking skills for fitness and athletic walkers, including program customization and how walking fits into a healthy lifestyle.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 31A  FUTSAL: INDOOR SOCCER BEGINNING 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Team Sports family of activity courses; not open to students with credit in PHED 29.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Indoor soccer class developing basic skills, including passing, shooting, dribbling and heading. Includes game strategy, tactics, and laws of the game.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 31B  FUTSAL: INDOOR SOCCER INTERMEDIATE 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Team Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Indoor soccer class developing intermediate skills, including curve passing, chip shooting, dribbling and heading. Includes intermediate game strategy, tactics, and laws of the game.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 31C  FUTSAL: INDOOR SOCCER ADVANCED 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Team Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Indoor soccer class developing advanced skills, including power passing, power shooting, speed dribbling and offensive heading. Includes advanced game strategy, tactics, and laws of the game.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 33  BEGINNING TABLE TENNIS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Strategy and competition for both singles and doubles table tennis play.
FHGE: Lifelong Understanding Transferable: CSU/UC

PHED 33A  INTERMEDIATE TABLE TENNIS 1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Individual Sports family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Focus on the strategies of singles and doubles play. Includes introduction to serving long and short, forehands smashes, drop shots, angle play, and doubles formations.
FHGE: Lifelong Understanding Transferable: CSU/UC
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PHED 33A</td>
<td>BEGINNING ARCHERY</td>
<td>1 Unit</td>
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<tr>
<td>PHED 33B</td>
<td>INTERMEDIATE ARCHERY</td>
<td>1 Unit</td>
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<tr>
<td>PHED 33C</td>
<td>ADVANCED ARCHERY</td>
<td>1 Unit</td>
</tr>
<tr>
<td>PHED 34</td>
<td>BASIC BASKETBALL</td>
<td>1 Unit</td>
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<tr>
<td>PHED 35</td>
<td>ADVANCED BASKETBALL</td>
<td>1 Unit</td>
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<tr>
<td>PHED 36A</td>
<td>BEGINNING BADMINTON</td>
<td>1 Unit</td>
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<tr>
<td>PHED 36B</td>
<td>INTERMEDIATE BADMINTON</td>
<td>1 Unit</td>
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<tr>
<td>PHED 36C</td>
<td>ADVANCED BADMINTON</td>
<td>1 Unit</td>
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<tr>
<td>PHED 37</td>
<td>BEGINNING BADMINTON (S&amp;D)</td>
<td>1 Unit</td>
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<tr>
<td>PHED 38A</td>
<td>INTERMEDIATE BADMINTON (S&amp;D)</td>
<td>1 Unit</td>
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<tr>
<td>PHED 38B</td>
<td>ADVANCED BADMINTON (S&amp;D)</td>
<td>1 Unit</td>
</tr>
<tr>
<td>PHED 38C</td>
<td>BEGINNING BADMINTON (S&amp;D)</td>
<td>1 Unit</td>
</tr>
</tbody>
</table>

**Degree & Credit Status:** Degree-applicable credit course

**Advisory:** This course is included in the Individual Sports family of activity courses.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable:**

**3 hours laboratory. (36 hours total per quarter.)**

Focus on the strategies of singles and double play, including serving with a variety of spins, forehand and backhand smashes, drop shots, angle play and doubles formations. Strong emphasis on fitness, flexibility and nutrition. How to design a point, set and match will also be a main focus of this course.

**FHGE: Lifelong Understanding Transferable: CSU/UC**
<table>
<thead>
<tr>
<th>PHED 40</th>
<th>BEGINNING VOLLEYBALL</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Team Sports family of activity courses.</td>
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<tr>
<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Introduction to the game of volleyball. Includes basic skills, strategy, and team play.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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<table>
<thead>
<tr>
<th>PHED 40A</th>
<th>INTERMEDIATE VOLLEYBALL</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Team Sports family of activity courses.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Introduces and builds upon prior knowledge of the intermediate game of volleyball. Strategies and skills at an intermediate level will be presented and will promote appreciation of this lifetime activity.</td>
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<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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</tbody>
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<table>
<thead>
<tr>
<th>PHED 40C</th>
<th>VOLLEYBALL: GAME SKILLS</th>
<th>1 Unit</th>
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</thead>
<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Team Sports family of activity courses.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Presents game play in live game situations. Includes rotations and offensive and defensive strategies.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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<thead>
<tr>
<th>PHED 41</th>
<th>INDOOR CYCLING: SPIN</th>
<th>1 Unit</th>
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</thead>
<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Cardio Fitness family of activity courses.</td>
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<tr>
<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>An indoor cycling program to enhance cardiovascular fitness and improve cycling techniques. Emphasis will be on improving endurance through non-impact activity.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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</tbody>
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<table>
<thead>
<tr>
<th>PHED 41A</th>
<th>INDOOR CYCLING: HILLS &amp; SPRINTS</th>
<th>1 Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Cardio Fitness family of activity courses.</td>
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<tr>
<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Cardio interval exercise set to appropriate cadence music on an indoor bicycle, with periods of aerobic and anaerobic work, mixed with appropriate recovery periods.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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<table>
<thead>
<tr>
<th>PHED 41B</th>
<th>INTERMEDIATE INDOOR CYCLING</th>
<th>1 Unit</th>
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</thead>
<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<td></td>
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<tr>
<td>Advisory: This course is included in the Cardio Fitness family of activity courses.</td>
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<tr>
<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Promotes physical fitness using an indoor stationary bike. This intermediate indoor cycling course focuses on pedaling techniques, safety procedures, and conditioning exercises necessary for intermediate-level cycling.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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<thead>
<tr>
<th>PHED 42</th>
<th>BOWLING FOR FITNESS</th>
<th>1 Unit</th>
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</thead>
<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Individual Sports family of activity courses.</td>
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<tr>
<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>A comprehensive study of the physical skills and practice for lifetime enjoyment of bowling.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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<thead>
<tr>
<th>PHED 43A</th>
<th>ULTIMATE I</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Team Sports family of activity courses.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Designed to enhance the student’s skills and abilities in Ultimate Frisbee. Emphasis will be placed on cardiovascular and muscular fitness. This course is progressive; the intensity increases as the individual improves abilities.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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<thead>
<tr>
<th>PHED 43B</th>
<th>ULTIMATE II</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Team Sports family of activity courses.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Designed to enhance the student’s skills and abilities in Ultimate Frisbee. Emphasis will be placed on cardiovascular and muscular fitness. This course is progressive; the intensity increases as the individual improves abilities.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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<thead>
<tr>
<th>PHED 44</th>
<th>MASTERY OF UTMETE I</th>
<th>1 Unit</th>
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</thead>
<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Team Sports family of activity courses.</td>
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<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Designed to enhance the student’s skills and abilities in Ultimate Frisbee. Emphasis will be placed on cardiovascular and muscular fitness. This course is progressive; the intensity increases as the individual improves abilities.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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<thead>
<tr>
<th>PHED 45</th>
<th>FITNESS FOR LIFE</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Strength Development family of activity courses.</td>
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<tr>
<td>Grade Type: Pass/No Pass Only</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Increase muscle strength, endurance and cardiovascular fitness through self-paced program of use on cardio, strength and fitness machines.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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<thead>
<tr>
<th>PHED 45A</th>
<th>FOUNDATIONS OF STRENGTH &amp; CONDITIONING</th>
<th>1 Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td>Advisory: This course is included in the Strength Development family of activity courses.</td>
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<tr>
<td>Grade Type: Letter Grade or Pass/No Pass</td>
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<tr>
<td>Not Repeatable.</td>
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<tr>
<td>3 hours laboratory. (36 hours total per quarter.)</td>
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<tr>
<td>Provides an exercise program to develop the key components of health-related physical fitness: cardiovascular/respiratory conditioning, muscular strength, muscular endurance, flexibility and body composition.</td>
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<tr>
<td>FHGE: Lifelong Understanding</td>
<td>Transferable: CSU/UC</td>
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</tbody>
</table>
PHED 45C  CIRCUIT TRAINING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Strength Development family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Increase strength, flexibility and cardiovascular endurance through the application of circuit training.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 46  WEIGHT LIFTING FOR HEALTH & FITNESS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Strength Development family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Provides training and instruction on the use of weights for lifetime fitness and health.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 46A  INTERMEDIATE WEIGHT TRAINING FOR HEALTH & FITNESS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Strength Development family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
A total body conditioning class that emphasizes intense free weight exercises set to music and incorporates core conditioning. Featured equipment includes dumbbells, body bar, resistance bands, body weight and balls. Students must provide their own fitness mat.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 46B  ADVANCED WEIGHT LIFTING FOR HEALTH & FITNESS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Strength Development family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Advanced training and instruction in the use of weights for lifetime health and fitness.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 47C  HIGH-INTENSITY INTERVAL TRAINING (HIIT)  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Cross Training family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
An intense total body workout to improve endurance and strengthen and define every muscle using high intensity intervals. This type of training is an effective way to train taking fitness to the next level. Students must provide their own fitness mat.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 49A  SURVIVOR TRAINING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Cross Training family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Intended for the average group exercise participant, using sports fitness drills and functional training to develop footwork, anaerobic and aerobic conditioning, muscular strength and power.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 49B  BOOT CAMP TRAINING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Cross Training family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Group training using functional fitness activities to develop core strength, cardiovascular conditioning and muscle strength and power.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHED 70R  INDEPENDENT STUDY IN PHYSICAL EDUCATION  1 Unit
PHED 71R  2 Units
PHED 72R  3 Units
PHED 73R  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Physical Education beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU

PHED 47B  THIGHS, ABS & GLUTEUS (TAG)  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Cross Training family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Strengthen thigh, abdominal and gluteus muscles in an intensive, fun and highly energized workout.
FHGE: Lifelong Understanding  Transferable: CSU/UC
PHDA 15A  MODIFIED TOTAL FITNESS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Designed to provide the student the opportunity to engage in an appropriate and safe total body workout. Exercise programs will be developed with consideration given to each student's individual needs and abilities. Students will learn the components of physical fitness and how they apply to specific exercises.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHDA 15B  INTERMEDIATE MODIFIED  1 Unit
TOTAL FITNESS
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Designed to provide the student the opportunity to engage in an appropriate and safe total body workout. Exercise programs will be developed with consideration given to each student's individual needs and abilities. Students will progress in their level of exercise, incorporating balance and coordination activities.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHDA 15C  PROGRESSIVE MODIFIED  1 Unit
TOTAL FITNESS
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Designed to provide the student the opportunity to engage in an appropriate and safe total body workout. Exercise programs will be developed with consideration given to each student's individual needs and abilities. Students will progress to a higher level of exercise, incorporating all components of fitness, including balance and coordination skills.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHDA 16  MODIFIED GENERAL CONDITIONING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will limit transfer credit for any/all Physical Education activity courses to a maximum of 6 quarter units; not open to students with credit in ALAP 60X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Personal instruction in exercise programs to develop a comprehensive exercise program based on physical abilities and individual goals. Cardiovascular endurance, flexibility, muscular strength and endurance, balance and/or motor skills, as appropriate.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHDA 17  MODIFIED RESISTIVE EXERCISE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will limit transfer credit for any/all Physical Education activity courses to a maximum of 6 quarter units; not open to students with credit in ALAP 61X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Instructs students in methodologies for increasing muscular strength and endurance. Uses free weights, pin set weight machines, medicine balls, resistance bands, etc., as appropriate.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHDA 18  INDIVIDUALIZED EXERCISE  1 Unit
FOR SPECIAL POPULATIONS
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will limit transfer credit for any/all Physical Education activity courses to a maximum of 6 quarter units; not open to students with credit in ALAP 62X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Cardiovascular endurance, muscular endurance and strength, flexibility, balance and coordination activities, motor skills, as appropriate. Emphasis on adapting and developing an exercise program to meet individual needs and goals.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHDA 19  MODIFIED FUNCTIONAL FITNESS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will limit transfer credit for any/all Physical Education activity courses to a maximum of 6 quarter units; not open to students with credit in ALAP 66X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Exercises for improving activities of daily living. Emphasis on proper body mechanics, postures and movement patterns. Development of joint mobility, muscular strength, muscular endurance, balance, coordination and locomotion as it relates to daily activities.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHDA 20  MODIFIED AQUATICS  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will limit transfer credit for any/all Physical Education activity courses to a maximum of 6 quarter units; not open to students with credit in ALAP 70X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Group or individualized instruction in proper swimming and water exercise techniques.
FHGE: Lifelong Understanding  Transferable: CSU/UC

PHDA 21A  MODIFIED WATER EXERCISE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will limit transfer credit for any/all Physical Education activity courses to a maximum of 6 quarter units; not open to students with credit in ALAP 71X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Group and/or individual water exercise program to increase muscular strength and endurance, flexibility, cardiovascular endurance, balance and coordination, relaxation, as appropriate.
FHGE: Lifelong Understanding  Transferable: CSU/UC
PHDA 23           MODIFIED AEROBIC EXERCISE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will limit transfer credit for any/all Physical Education activity courses to a maximum of 6 quarter units; not open to students with credit in ALAP 64 or PHDA 64.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Aerobic exercise, individually modified, to increase cardiovascular and muscular endurance. Combination of aerobic exercise through the use of various cardiovascular machines or use of the track.
FHGE: Lifelong Understanding          Transferable: CSU/UC

PHDA 24           MODIFIED STRETCHING & FLEXIBILITY  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will limit transfer credit for any/all Physical Education activity courses to a maximum of 6 quarter units; not open to students with credit in ALAP 65 or PHDA 65.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Individualized and/or group instruction on the proper forms of stretching exercises for students. Emphasis on increased range of motion and flexibility.
FHGE: Lifelong Understanding          Transferable: CSU/UC

PHDA 25           BALANCE & FUNCTIONAL MOVEMENT  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: UC will limit transfer credit for any/all Physical Education activity courses to a maximum of 6 quarter units; not open to students with credit in ALAP 67 or PHDA 67.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Balance and functional exercise training to enhance mobility and neuromuscular function. Emphasis on enhancing functional movement, movement efficiency, muscular strength, muscular endurance and flexibility.
FHGE: Lifelong Understanding          Transferable: CSU/UC

PHDA 401           ADAPTED MOVEMENT  0 Units
Degree & Credit Status: Non-degree-applicable non-credit course
Grade Type: Non-credit course that receives no grade
Unlimited Repeatability.
3 hours laboratory per week. (36 hours total per quarter.)
This course is designed for students with disabilities. Provides personal instruction, addressing the individual needs of each student. Will focus on improving muscular strength and endurance, cardiovascular endurance, flexibility, balance and coordination. Will also promote the awareness and application of personal wellness through physical activity.
FHGE: Non-GE Applicable          Transferable: None

PSE 20           INTRODUCTION TO PHYSICAL SCIENCE  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MATH 105 or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
This activity-based course provides an introduction to the basic concepts of physical science with emphasis on their practical importance and application in the real world. This course is intended for students who want to become primary school teachers.
FHGE: Natural Sciences          Transferable: CSU/UC

PSE 56           SEMINAR IN TEACHING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: MATH 105 or equivalent; basic competency in using computers and online software.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Strategies to successfully teach topics in pre-collegiate mathematics. Topics include number theory, fraction operations, proportional reasoning, statistics, linear relationships and problem solving. Intended as professional development for middle and high school mathematics teachers.
FHGE: Non-GE Applicable          Transferable: CSU

PSE 61A           TUTOR TRAINING I  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: An earned A or B+ grade with instructor recommendation in one of the following: MATH 1A, 1AH, 1B, 1BH, 1C, 1D, 2A, 2B, 10, 48A, 48B, 48C, 105; not open to students with credit in PSE 111A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Training in team leading skills necessary for tutoring, including study skills, college policies, professionalism, ethics and role modeling of successful student behavior. Techniques of subject specific tutoring skills. Practice of these skills through sample student work and instructor assignments and, when applicable, content-specific suggestions from the tutee’s instructor. Ideal for students intending to tutor math for the first time.
FHGE: Non-GE Applicable          Transferable: CSU

PSE 61B           TUTOR TRAINING II  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PSE 61A.
Advisory: An earned A or B+ grade with instructor recommendation in one of the following: MATH 1A, 1AH, 1B, 1BH, 1C, 1D, 2A, 2B, 10, 48A, 48B, 48C, 105; not open to students with credit in PSE 111B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Advanced training in team leading skills necessary for tutoring. Students will be asked to engage in advanced reflections on tutoring and advanced level critique of one’s own and other tutoring processes. Techniques of subject specific tutoring skills with attention given to diverse learning styles. Practice of these skills through sample student work and instructor assignments and, when applicable, content-specific suggestions from the tutee’s instructor. Ideal for students intending to tutor math for the second time.
FHGE: Non-GE Applicable          Transferable: CSU
### PHYSICS

**Physical Sciences, Mathematics & Engineering**

650.949.7259 foothill.edu/physics/

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<td>Letter Grade Only</td>
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<td>Degree-applicable credit course</td>
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<td>PHYS 2D</td>
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<td>Degree-applicable credit course</td>
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<td>PHYS 3</td>
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<td>Degree-applicable credit course</td>
<td>MATH 1B or 1BH.</td>
<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>CSU/UC</td>
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**PHYS 2A**

Lectures, demonstrations, and problems in mechanics; properties of matter.

**PHYS 2AM**

Application of calculus to physics topics and problems in mechanics.

**PHYS 2B**

Lectures, demonstrations, and problems in thermal physics; electricity and magnetism and fluids.

**PHYS 2BM**

Application of calculus to physics topics and problems in electricity and magnetism.

**PHYS 2C**

Lectures, demonstrations, and problems in waves; optics; introductory quantum mechanics; atomic physics; and nuclear physics.

**PHYS 2D**

Special relativity, statistical mechanics, quantum mechanics, atomic physics, nuclear physics, particle physics.

**PHYS 4A**

Mathematics-physics interrelationships, classical Newtonian mechanics.

**PHYS 4B**

Thermodynamics; mechanical, acoustical, and electromagnetic waves; optics.

**PHYS 4C**

Special relativity, statistical mechanics, quantum mechanics, atomic physics, nuclear physics, particle physics.

**PHYS 4D**

Lectures, demonstrations, and problems in mechanics, electricity and magnetism.
PHYS 12  INTRODUCTION TO MODERN PHYSICS  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in PHYS 12H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Non-mathematical introduction to the ideas of modern physics intended for majors in the physical sciences. Introduction to the history and ideas of physics focus on three areas of modern physics, thermodynamics and the concept of entropy, Einstein’s special and general theories of relativity, and quantum mechanics. The key ideas in these areas are explained using demonstrations, analogies, and examples drawn, whenever possible, from the student’s own experience. Examine the impact these physics ideas have had on other fields, such as poetry, literature and music. No background in science or math is assumed.
FHGE: Non-GE Applicable  Transferable: CSU/UC

PHYS 12H  HONORS INTRODUCTION TO MODERN PHYSICS  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in PHYS 12.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Non-mathematical introduction to the ideas of modern physics intended for majors in the physical sciences. Introduction to the history and ideas of physics focus on three areas of modern physics, thermodynamics and the concept of entropy, Einstein’s special and general theories of relativity, and quantum mechanics. The key ideas in these areas are explained using demonstrations, analogies, and examples drawn, whenever possible, from the student’s own experience. Examine the impact these physics ideas have had on other fields, such as poetry, literature and music. No background in science or math is assumed. Honors students will engage in additional readings and discussions.
FHGE: Non-GE Applicable  Transferable: CSU/UC

PHYS 70R  INDEPENDENT STUDY IN PHYSICS  1 Unit
PHYS 71R  2 Units
PHYS 72R  3 Units
PHYS 73R  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Physics beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU/UC

POLI 1  POLITICAL SCIENCE: INTRODUCTION TO AMERICAN GOVERNMENT & POLITICS  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Contemporary analysis of the structure and function of American government and California state government, both their constitutional and political systems at the federal, state and local levels. Focus on the following topics: paradigms in the social sciences, models of justice and models of democracy, evolution of American elites and American constitutionalism, role of media in American political culture, political parties and political socialization, concept of the separation of powers: legislative, executive and judiciary branches, protest and protest movements, Civil Rights Acts of 1964 and 1991.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

POLI 2  COMPARATIVE GOVERNMENT & POLITICS  4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in POLI 2H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introductory analysis of comparative governmental systems and politics emphasizing a variety of political forms, theory of political differentiation and development, and patterns, processes and regularities among political systems in developing and developed world.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

POLI 2H  HONORS COMPARATIVE GOVERNMENT & POLITICS  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in POLI 2.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introductory analysis of comparative governmental systems and politics emphasizing a variety of political forms, theory of political differentiation and development, and patterns, processes and regularities among political systems in developing and developed world. As an honors course, it is a full seminar with advanced teaching methods focusing on major writing, reading, and research assignments, student class presentations, group discussions and interactions.
FHGE: Non-GE Applicable  Transferable: CSU/UC
POLI 3  INTRODUCTION TO POLITICAL PHILOSOPHY/POLITICAL THEORY  5 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in POLI 3H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Analysis of the history of political thought, the development of various forms of political ideologies and their manifestation in forms of the state. Philosophical formulations of concepts of state of nature, natural law, civil and political society explored as integral parts of philosophies of: Plato and Aristotle, Augustine and Aquinas, Machiavelli and Hobbes, Locke and Rousseau, Bentham and Mill, Hegel, Marx, and Antonio Gramsci.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

POLI 3H  HONORS INTRODUCTION TO POLITICAL PHILOSOPHY/POLITICAL THEORY  5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in POLI 3.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Analysis of the history of political thought, the development of various forms of political ideologies and their manifestation in forms of the state. Philosophical formulations of concepts of state of nature, natural law, civil and political society explored as integral parts of political philosophies of: Plato and Aristotle, Augustine and Aquinas, Machiavelli and Hobbes, Locke and Rousseau, Bentham and Mill, Hegel, Marx and Gramsci. The honors course is a full seminar with advanced teaching methods focusing on major writing, reading, and research assignments, student oral class presentations, group discussions, and interactions. 

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

POLI 4  CALIFORNIA POLITICS & GOVERNMENT  5 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Provides students with the opportunity to develop and formulate their own perspectives on California politics. The course will explore policymaking and the exercise of power within the federal framework, including but not limited to state and local issues and institutions. The course will begin by studying the basic constitutional framework of the state government, compare and examine the state's relationship with the federal government, and then focus on political issues that California is currently facing.

FHGE: Non-GE Applicable  Transferable: CSU/UC

POLI 9  POLITICAL ECONOMY  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in ECON 9, ECON 9H or POLI 9H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Analysis of the contending theoretical formulations of International Political Economy (IPE), emphasizing the interconnectedness in economics and politics in the broad context of a global economy and the formulation of national public policy. Economic and political policy issues of current national and international significance are emphasized.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

POLI 9H  HONORS POLITICAL ECONOMY  4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ECON 9, ECON 9H or POLI 9.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Analysis of the contending theoretical formulations of International Political Economy (IPE), emphasizing the interconnectedness between economics and politics in the broad context of a global economy and the formulation of national public policy. Economic and political policy issues of current national and international significance are emphasized. The honors course is a full thematic seminar with advanced teaching methods, focusing on extensive writing, reading, research assignments, student-led seminar discussions, group discussions, oral presentations and interactions. Distinctive features include: heightened focus on and evaluation of global objectives and components of developed and developing nations, increased depth of analysis and breadth of examination, higher level of student critical thinking. Expanded learning outcomes and fuller description of these focused elements.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

POLI 15  INTERNATIONAL RELATIONS/WORLD POLITICS  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; not open to students with credit in POLI 15H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Analysis of the central elements of international relations, including: contending theoretical formulations of international relations, factors of sovereignty, nationalism, relations between the core, semi-periphery and peripheral countries, the role of the World Trade Organization in international trade relations, international terrorism and global warming. The international struggle for global hegemony and the impact of terrorism on world politics are systematically analyzed in the context of an increasingly unipolar world.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

POLI 15H  HONORS INTERNATIONAL RELATIONS/WORLD POLITICS  4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in POLI 15.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Analysis of the contending theoretical formulations of international relations, the international political economy, factors of sovereignty, nationalism, relations between the core, semi-periphery and peripheral countries, the role of the World Trade Organization in international trade relations, international terrorism and global warming. The impact of international terrorism and international security on world politics are systematically analyzed in the context of an increasingly unipolar world as the struggle for hegemony ensues. The honors course is a full seminar with advanced teaching methods, focusing on major writing, reading, and research assignments, student class presentations, group discussions and interactions.

FHGE: Social & Behavioral Sciences  Transferable: CSU/UC
PSYC 1  GENERAL PSYCHOLOGY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PSYC 1 or 1H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
An exploration of the major perspectives, concepts, and theories in psychology and the factors that influence human behavior. Topics include: research methodology, biological psychology, perception, sleep and dreaming, learning, cognitive processes, developmental psychology, motivation and emotion, sexuality and gender, stress and health, social psychology, theories of personality, psychological disorders and psychological therapies.
FHGE: Social & Behavioral Sciences Transferable: CSU/UC

PSYC 1H  HONORS GENERAL PSYCHOLOGY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in PSYC 1.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
An exploration of the major perspectives, concepts, and theories in psychology and the factors that influence human behavior. Topics include: research methodology, biological psychology, perception, sleep and dreaming, learning, cognitive processes, developmental psychology, motivation and emotion, sexuality and gender, stress and health, social psychology, theories of personality, psychological disorders and psychological therapies. As an honors course, there will be a focus on analytical writing and exploring the field through reading primary source research.
FHGE: Social & Behavioral Sciences Transferable: CSU/UC

PSYC 4  INTRODUCTION TO BIOPSYCHOLOGY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: PSYC 1 or 1H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
This course examines the brain-behavior connection and the biological aspects of behavior and consciousness. Topics covered within the course include behavioral genetics, evolutionary psychology, neuroanatomy, physiological perspectives of sensory perception, learning and memory, sleep and dreaming, drug addiction, emotion, human sexuality, and biological bases of psychiatric disorders.
FHGE: Social & Behavioral Sciences Transferable: CSU/UC
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<td>PSYC 49</td>
<td>HUMAN SEXUALITY</td>
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</table>

### Details:

- **Degree & Credit Status:** Degree-applicable credit course
- **Advisory:** Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESSL 125 & ESSL 249; not open to students with credit in SOC 21 or WMN 21.
- **Grade Type:** Letter Grade or Pass/No Pass
- **Not Repeatable.**
- **4 hours lecture. (48 hours total per quarter.)**
- **Survey of gender issues based upon psychological and sociological theories and research. Examination of sex differences and sex role stereotyping in a global, multi-cultural approach. Appraisal of effects of biology, culture, and society in creating sex and gender differences. Consideration of major theories of gender development. Focus on biology, socialization, mass media, communication, personality, abilities, work, family, sex and violence.**
- **FHGE: Social & Behavioral Sciences**
- **Transferable: CSU/UC**
PSYC 51  APPLIED RESEARCH EXPERIENCE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Students must meet with the instructor during the first week of
the quarter to schedule hours and responsibilities.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Provides an opportunity for students to gain advanced reflection from
research skills gained through their volunteer research assistant activities in
other academic settings. Trainings will be provided in conducting research
with human participants and safety procedures. Additional requirements
include participation in online and/or in-person workshop trainings on de-
vloping research skills, submission of a writing assignment on an assigned
reading, and completion of an exit survey regarding their experience as a
research assistant.

FHGE: Non-GE Applicable  Transferable: CSU

PSYC 54H  HONORS INSTITUTE SEMINAR IN PSYCHOLOGY  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: ENGL 1A or 1AH; not open to students with credit in PSYC 34 or
34H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
A seminar in directed readings, discussions and projects in psychology.
Specific topics to be determined by the instructor.

FHGE: Non-GE Applicable  Transferable: CSU

PSYC 70R  INDEPENDENT STUDY IN PSYCHOLOGY  1 Unit
PSYC 71R  2 Units
PSYC 72R  3 Units
PSYC 73R  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Psy-
chology beyond the classroom by completing a project or an assignment
arranged by agreement between the student and instructor. The student is
required to contract with the instructor to determine the scope of assign-
ment and the unit value assigned for successful completion. Students may
take a maximum of 6 units of Independent Study per department.

FHGE: Non-GE Applicable  Transferable: CSU

R T 50  ORIENTATION TO RADIATION SCIENCE TECHNOLOGIES  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: AHS 52; BIOL 40A, 40B and 40C or equivalent; R T 200L.
Corequisite: R T 53.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Overview of Radiologic Technology as a career. Radiographic terminology,
positioning for abdomen, vital sign assessment, introduction to x-ray pro-
tection and production, radiographic image formation, patient care, basic
computer operation and Internet application. Overview of program struc-
ture and student services. Intended for students in the Radiologic Technolo-
gy Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

R T 51A  FUNDAMENTALS OF RADIOLOGIC TECHNOLOGY I  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 50.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Medical and radiographic terms. Basic positioning and anatomy, related to
chest, abdomen, upper and lower extremities. Intended for students in the
Radiologic Technology Program; enrollment is limited to students accepted
in the program.

FHGE: Non-GE Applicable  Transferable: CSU

R T 51B  FUNDAMENTALS OF RADIOLOGIC TECHNOLOGY II  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 51A.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Continuation of R T 51A; radiographic anatomy, positioning and procedures,
related to shoulder girdle, hip/pelvis, gastrointestinal tract, genitourinary
system, and biliary system. Intended for students in the Radiologic Technol-
ogy Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

R T 51C  FUNDAMENTALS OF RADIOLOGIC TECHNOLOGY III  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 51B.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Continuation of R T 51B; radiographic anatomy, positioning and terminol-
ogy, related to the skull, vertebral column, bony thorax, surgical, pediatric
and trauma radiology. Intended for students in the Radiologic Technology
Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU
R T 52D  DIGITAL IMAGE ACQUISITION & DISPLAY  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 55B.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Imparts an understanding of components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed. Compare/contrast different types of digital systems. Principles of digital system quality assurance and maintenance. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 53  ORIENTATION TO RADIOLOGIC TECHNOLOGY  4 Units
Degree & Credit Status: Degree-applicable credit course
Corequisite: R T 50.
Grade Type: Letter Grade Only
Not Repeatable.
150 hours clinical laboratory total per quarter. This is a 7 week course.
Orientation to radiation sciences, with emphasis on clinical participation. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 53A  APPLIED RADIOGRAPHIC TECHNOLOGY I  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: COMM 2 and R T 53.
Grade Type: Letter Grade Only
Not Repeatable.
16 hours clinical laboratory. This is an 11 week course. (176 hours total per quarter)
First of four courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Emphasis is placed on chest, abdomen, and upper and lower extremity radiography. A clinical presentation is also required with the same emphasis. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 53B  APPLIED RADIOGRAPHIC TECHNOLOGY II  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 53A.
Grade Type: Letter Grade Only
Not Repeatable.
16 hours clinical laboratory. This is an 11 week course. (176 hours total per quarter)
Second of four courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection, image analysis and technical radiographic experiments. Emphasis is placed on the biliary tract, upper and lower gastrointestinal system and the urinary system. A clinical presentation is also required with the same emphasis. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 53B  APPLIED RADIOGRAPHIC TECHNOLOGY II  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 53AL.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Second of three courses that include laboratory participation and application of basic positioning, patient care, equipment manipulation, radiation protection, image analysis and technical radiographic experiments. Emphasis is placed on shoulder girdle, hip/pelvis, esophagus, stomach, colon and urinary system, as learned in the companion lecture course, R T 51B. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 53C  APPLIED RADIOGRAPHIC TECHNOLOGY III  4.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 53B.
Grade Type: Letter Grade Only
Not Repeatable.
16 hours clinical laboratory. This is an 11 week course. (176 hours total per quarter)
Third of four courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Emphasis is placed on the cervical, thoracic and lumbar spines, sacrum and coccyx, and skull. A clinical presentation is also required with the same emphasis. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 53D  APPLIED RADIOGRAPHIC TECHNOLOGY III  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 53CL.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Third of three courses that include laboratory participation and application of basic positioning, patient care, equipment manipulation, radiation protection, image analysis and technical radiographic experiments. Emphasis is placed on vertebral column, sacrum and coccyx, ribs, skull, trauma, surgical and pediatric, as learned in the companion lecture course, R T 51C. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU
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<th>Units</th>
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<td>APPLIED RADIOLOGIC TECHNOLOGY IV</td>
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<tr>
<td>R T 54A</td>
<td>BASIC PATIENT CARE FOR IMAGING TECHNOLOGY</td>
<td>2</td>
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<tr>
<td>R T 54B</td>
<td>LAW &amp; ETHICS IN MEDICAL IMAGING</td>
<td>2</td>
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<tr>
<td>R T 54C</td>
<td>RADIOGRAPHIC PATHOLOGY</td>
<td>3</td>
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<tr>
<td>R T 55A</td>
<td>PRINCIPLES OF RADIOLOGIC TECHNOLOGY I</td>
<td>3</td>
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<tr>
<td>R T 55B</td>
<td>PRINCIPLES OF RADIOLOGIC TECHNOLOGY II</td>
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<td>R T 55C</td>
<td>PRINCIPLES OF RADIOLOGIC TECHNOLOGY III</td>
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<td>R T 55D</td>
<td>APPLIED RADIOLOGIC TECHNOLOGY IV</td>
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<tr>
<td>R T 56A</td>
<td>RADIOLOGY RESEARCH PROJECT I</td>
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</table>

Degree & Credit Status: Degree-applicable credit course

Prerequisite: R T 53C.
Grade Type: Letter Grade Only
Not Repeatable.

27 hours clinical laboratory. (324 hours total per quarter.)

Fourth of four courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Emphasis is placed on pediatric radiography, venipuncture and fluoroscopy. A clinical presentation is also required with the emphasis on pathology. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

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Prerequisite: R T 50.
Grade Type: Letter Grade Only
Not Repeatable.

2 hours lecture. (24 hours total per quarter.)

Basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures and techniques as well as infection control protocols. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

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Prerequisites: R T 54A; one of the following: ENGL 1A, 1AH, or 1S & 1T.
Grade Type: Letter Grade Only
Not Repeatable.

2 hours lecture. (24 hours total per quarter.)

A fundamental background in ethics, historical and philosophical basis of ethics, as well as elements of ethical behavior, in regard to clinical practice. Misconduct, malpractice, legal and professional standards and the ASRT scope of practice. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

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Prerequisite: R T 54B.
Grade Type: Letter Grade Only
Not Repeatable.

3 hours lecture. (36 hours total per quarter.)

Radiographic Pathology of the respiratory, osseous, fractures, urinary, gastrointestinal, hepatobiliary, central nervous, hemopoietic and endocrine systems, HSG's and associated pathologies. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

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Prerequisite: R T 50; CHEM 25 or 30A.
Advisory: Not open to students with credit in R T 52A.
Grade Type: Letter Grade Only
Not Repeatable.

3 hours lecture. (36 hours total per quarter.)

Introduction to elementary principles of x-ray physics, technique, radiation protection and digital radiography. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

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Prerequisite: R T 55A.
Grade Type: Letter Grade Only
Not Repeatable.

3 hours lecture. (36 hours total per quarter.)

Continuation of R T 55A. Expansion of the principles of x-ray physics, technique and radiation protection. This course emphasizes the circuitry of the x-ray machine, automatic exposure control devices, quality management, radiographic quality and the resulting effect on radiation protection. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

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Prerequisite: R T 55B.
Grade Type: Letter Grade Only
Not Repeatable.

3 hours lecture. (36 hours total per quarter.)

Continuation of R T 55B, including physics and technique with the main focus on radiation protection of the patient and the occupational worker. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU

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Prerequisite: R T 53D.
Grade Type: Letter Grade Only
Not Repeatable.

1 hour lecture. (12 hours total per quarter.)

Collaborative research project on a highly specialized area of radiography or other imaging modality. Submission of scientific poster display board at ACERT conference is required. Selected research topics to be approved by the instructor. This course is part 1 of 2 of the research project for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable Transferable: CSU
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<tr>
<th>Course Code</th>
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<td>RADIOLOGY RESEARCH PROJECT II</td>
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<td>R T 62A</td>
<td>ADVANCED MODALITIES IN IMAGING</td>
<td>3</td>
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<td>Letter Grade Only</td>
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<td>R T 62B</td>
<td>SPECIAL PROCEDURES &amp; EQUIPMENT</td>
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<td>R T 62C</td>
<td>PROFESSIONAL DEVELOPMENT IN RADIOLOGY</td>
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<td>Degree-applicable credit course</td>
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<td>R T 63</td>
<td>ADVANCED RADIOGRAPHIC PRINCIPLES</td>
<td>3</td>
<td>Degree-applicable credit course</td>
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<td>Letter Grade Only</td>
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<td>R T 63A</td>
<td>RADIOGRAPHIC CLINICAL PRACTICUM I</td>
<td>10.5</td>
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<td>R T 63B</td>
<td>RADIOGRAPHIC CLINICAL PRACTICUM II</td>
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<td>R T 63C</td>
<td>RADIOGRAPHIC CLINICAL PRACTICUM III</td>
<td>10.5</td>
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FHGE: Non-GE Applicable  Transferable: CSU

R T 64  FLUOROSCOPY  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 55C or current certification in Radiologic Technology or Radiation Therapy Technology.
Grade Type: Letter Grade Only
Not Repeatable.
55 hours total per quarter: 40 hours lecture, 15 hours laboratory. This course does not meet a full 12 weeks.
Principles of radiation protection and fluoroscopic equipment, application of special equipment, illumination and photometry, anatomy and physiology of the eye and relationship of internal organs. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 65  MAMMOGRAPHY  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: R T 62A or current certification in Radiologic Technology.
Grade Type: Letter Grade Only
Not Repeatable.
2.5 hours lecture, 1.5 hours laboratory. (48 hours total per quarter.)
Technical and procedural aspects of mammography including breast anatomy, physiology, positioning, compression, quality assurance techniques, implant imaging and mass localization. Successful completion of this course entitles the student to a Certificate of Completion of a 40 hour course in mammography education. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 70A  ADVANCED CLINICAL EXPERIENCE: INTERVENTIONAL RADIOGRAPHY  13 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: R T 62B and 62C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
40 hours clinical laboratory. (480 hours total per quarter.)
Designed as a practicum in a special procedures department. Practical experience is implemented to expose the student to the principles of angiography with emphasis on mastery of the knowledge, insight, and skills required to perform angiographic procedures.
FHGE: Non-GE Applicable  Transferable: CSU

R T 71  ADVANCED CLINICAL EXPERIENCE: MAGNETIC RESONANCE IMAGING  13 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: Current ARRT and CRT Certification as a Radiologic Technologist; R T 62A and 62C.
Grade Type: Letter Grade Only
Not Repeatable.
40 hours clinical laboratory. (480 hours total per quarter.)
A practicum in a magnetic resonance department. Practical experience is implemented to expose the post-graduate radiologic technology student to the principles of MRI with emphasis on mastery of the knowledge, insight, and skills required to perform MRI procedures.
FHGE: Non-GE Applicable  Transferable: CSU

R T 72  VENIPUNCTURE  1.5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: R T 51C or current certification in Radiologic Technology; current Health Care Provider CPR card.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 1.5 hours laboratory. (30 hours total per quarter.)
Principles and practices of intravenous injection. Includes theory, demonstration and application of venipuncture equipment and solutions, puncture techniques, complications, and post-puncture care. Meets state of California qualifications for didactic certification in venipuncture for radiologic technologists. Intended for students in the Radiologic Technology Program and/or currently certified Radiologic Technologists; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 74  ADVANCED CLINICAL EXPERIENCE: COMPUTED TOMOGRAPHY  13 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: Current ARRT and CRT certification as a Radiologic Technologist; R T 62A and 62C.
Grade Type: Letter Grade Only
Not Repeatable.
40 hours clinical laboratory. (480 hours total per quarter.)
A practicum in a computed tomography department. Practical experience is implemented to expose the post-graduate radiologic technology student to the principles of CT with emphasis on mastery of the knowledge, insight and skills required to perform CT procedures.
FHGE: Non-GE Applicable  Transferable: CSU

R T 75  SECTIONAL ANATOMY  3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: BIOL 40A, 40B and 40C or equivalent.
Advisory: Not open to students with credit in DMS 51A.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Human anatomy of the head and body cavities is presented for the health care professional in transverse, sagittal and coronal imaging planes, with specific correlation to sonographic, computed tomographic and magnetic resonance imaging modalities. Anatomic reference points, intersecting planes and medical terminology are used to identify relationships of organs as well as pathologic alterations. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

R T 200L  RADIOLOGIC TECHNOLOGY AS A CAREER  1.5 Units
Degree & Credit Status: Non-degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
18 hours lecture total per quarter.
Introduction to the radiological sciences and its role in health care. Focus on the use of ionizing radiation in the diagnosis and treatment of disease and on the health professionals responsible for providing this medical specialty. Discussion of requirements for the Radiologic Technology Program. Three hours hospital observation included.
FHGE: Non-GE Applicable  Transferable: None
### RESPIRATORY THERAPY

**Biological and Health Sciences**  
650.949.7538 foothill.edu/resptherapy/

#### RSPT 50A  RESPIRATORY THERAPY PROCEDURES  4.5 Units

**Degree & Credit Status:** Degree-applicable credit course  
**Prerequisite:** Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESSL 125 & ESSL 249.  
**Grade Type:** Letter Grade Only  
**Not Repeatable.**  
**3 hours lecture, 5 hours laboratory. (96 hours total per quarter.)**  
Basic hospital and respiratory therapy procedures. Vital signs, compressed gas equipment, oxygen therapy, medical asepsis, bedside pulmonary function testing, disaster and emergency procedures, back safety. Intended for students in the Respiratory Therapy program; enrollment is limited to students accepted in the program.  
**FHGE: Non-GE Applicable**  
**Transferable: CSU**

#### RSPT 50B  INTRODUCTION TO PATIENT CARE PROCEDURES  5 Units

**Degree & Credit Status:** Degree-applicable credit course  
**Prerequisite:** RSPT 50A.  
**Grade Type:** Letter Grade Only  
**Not Repeatable.**  
**3 hours lecture, 6 hours laboratory. (108 hours total per quarter.)**  
Introduction to patient care procedures, suctioning, artificial airways, tracheostomy, bronchoscopy, administration of hyperinflation therapy, airway pharmacology, bronchial hygiene therapy, aerosol drug therapy, introduction to non-invasive ventilation, basic and advanced airway care, and nutrition assessment. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.  
**FHGE: Non-GE Applicable**  
**Transferable: CSU**

#### RSPT 50C  THERAPEUTICS & INTRODUCTION TO MECHANICAL VENTILATION  4 Units

**Degree & Credit Status:** Degree-applicable credit course  
**Prerequisite:** RSPT 50B.  
**Grade Type:** Letter Grade Only  
**Not Repeatable.**  
**3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)**  
Topics to be covered include respiratory failure, introduction to invasive and non-invasive mechanical ventilation. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.  
**FHGE: Non-GE Applicable**  
**Transferable: CSU**

#### RSPT 51A  INTRODUCTION TO RESPIRATORY ANATOMY & PHYSIOLOGY  2 Units

**Degree & Credit Status:** Degree-applicable credit course  
**Prerequisites:** BIOL 40A, 40B and 40C; medical terminology course of 2 semester units or greater.  
**Grade Type:** Letter Grade Only  
**Not Repeatable.**  
**2 hours lecture. (24 hours total per quarter.)**  
Anatomy of the respiratory system, ventilation, diffusion of pulmonary gases, circulatory system, and oxygen transport. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.  
**FHGE: Non-GE Applicable**  
**Transferable: CSU**

#### RSPT 51B  RESPIRATORY PHYSIOLOGY  3 Units

**Degree & Credit Status:** Degree-applicable credit course  
**Prerequisite:** RSPT 51A or equivalent.  
**Grade Type:** Letter Grade Only  
**Not Repeatable.**  
**3 hours lecture. (36 hours total per quarter.)**  
Respiratory physiology, including normal and altered lung physiology. Ventilation-perfusion relationships. Control of ventilation, renal, aging, exercise, altitude, and high pressure effects on physiology. Arterial blood gas interpretation and acid-base physiology. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.  
**FHGE: Non-GE Applicable**  
**Transferable: CSU**
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<td>PATIENT ASSESSMENT &amp; PULMONARY DISEASE</td>
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<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td></td>
<td>Prerequisite: BIOL 41.</td>
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<td>Not Repeatable.</td>
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<td>4 hours lecture, 3 hours laboratory (laboratory meets 5 times per quarter).</td>
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<td>(63 hours total per quarter.)</td>
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<td>Physiological approach to the etiology, management, and prognosis of the various respiratory diseases. Utilization of physical examination, chest X-ray and basic clinical laboratory tests in the diagnosis and treatment of pulmonary disease. Intended for students in the Respiratory Therapy Program.</td>
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<td>FHGE: Non-GE Applicable</td>
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<table>
<thead>
<tr>
<th>RSPT 52</th>
<th>APPLIED SCIENCE FOR RESPIRATORY THERAPY</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: CHEM 25, 30A or equivalent.</td>
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<td>Grade Type: Letter Grade Only</td>
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<td></td>
<td>Not Repeatable.</td>
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<td></td>
<td>3 hours lecture. (36 hours total per quarter.)</td>
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<tr>
<td></td>
<td>Basic mathematics and science principles applicable to Respiratory Therapy. Includes algebra review, metric system, behavior of matter, forces, and acids and bases. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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</table>

<table>
<thead>
<tr>
<th>RSPT 53A</th>
<th>INTRODUCTION TO RESPIRATORY THERAPY PHARMACOLOGY</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: RSPT 50A.</td>
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<td>Grade Type: Letter Grade Only</td>
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<td></td>
<td>Not Repeatable.</td>
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<tr>
<td></td>
<td>2 hours lecture. (24 hours total per quarter.)</td>
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<tr>
<td></td>
<td>An in-depth study of drug groups commonly used in the treatment of respiratory diseases. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<table>
<thead>
<tr>
<th>RSPT 53B</th>
<th>ADVANCED RESPIRATORY THERAPY PHARMACOLOGY</th>
<th>2</th>
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<tbody>
<tr>
<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: RSPT 53A.</td>
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<td></td>
<td>Grade Type: Letter Grade Only</td>
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<td></td>
<td>Not Repeatable.</td>
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<tr>
<td></td>
<td>2 hours lecture. (24 hours total per quarter.)</td>
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<tr>
<td></td>
<td>An in-depth study of drug groups commonly encountered in intensive respiratory care. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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</table>

<table>
<thead>
<tr>
<th>RSPT 54</th>
<th>ORIENTATION TO RESPIRATORY CARE</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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</tr>
<tr>
<td></td>
<td>Corequisite: RSPT 50A.</td>
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<td></td>
<td>Grade Type: Letter Grade Only</td>
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<tr>
<td></td>
<td>Not Repeatable.</td>
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<tr>
<td></td>
<td>2 hours lecture. (24 hours total per quarter.)</td>
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<tr>
<td></td>
<td>Orientation to the Respiratory Therapy Program and health care. Current issues in American medical care, professionalism, death, dying and loss, communication skills, cultural diversity, HIPAA, ethics, legal issues, and patient's rights. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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</table>

<table>
<thead>
<tr>
<th>RSPT 55A</th>
<th>MEDIATED STUDIES IN RESPIRATORY THERAPY I</th>
<th>.5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td></td>
<td>Corequisite: RSPT 50A.</td>
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<td></td>
<td>Grade Type: Letter Grade Only</td>
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<tr>
<td></td>
<td>Not Repeatable.</td>
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<td></td>
<td>2 hours laboratory. (24 hours total per quarter.)</td>
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<tr>
<td></td>
<td>First of seven courses paralleling content taught in courses in the Respiratory Therapy Program. Focus on oxygen equipment, anatomy and physiology, vital assessments and decision making. Develop and strengthen concepts taught in the concurrent lecture and laboratory sessions of the program. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<table>
<thead>
<tr>
<th>RSPT 55B</th>
<th>MEDIATED STUDIES IN RESPIRATORY THERAPY II</th>
<th>.5</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td></td>
<td>Prerequisite: RSPT 55A.</td>
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<tr>
<td></td>
<td>Grade Type: Letter Grade Only</td>
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<tr>
<td></td>
<td>Not Repeatable.</td>
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<td></td>
<td>2 hours laboratory. (24 hours total per quarter.)</td>
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<td></td>
<td>Second of seven courses paralleling content taught in courses in the Respiratory Therapy Program. Develop and strengthen concepts taught in the concurrent lecture and laboratory sessions of the program. Media materials will provide an alternative learning resource for non-traditional students. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<table>
<thead>
<tr>
<th>RSPT 55C</th>
<th>MEDIATED STUDIES IN RESPIRATORY THERAPY III</th>
<th>.5</th>
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<tbody>
<tr>
<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
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<tr>
<td></td>
<td>Prerequisite: RSPT 55B.</td>
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<td></td>
<td>Grade Type: Letter Grade Only</td>
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<tr>
<td></td>
<td>Not Repeatable.</td>
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<td></td>
<td>2 hours laboratory. (24 hours total per quarter.)</td>
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<td></td>
<td>Third of seven courses paralleling content taught in courses in the Respiratory Therapy Program. Focus on assessments and data evaluation. Develop and strengthen concepts taught in the concurrent lecture and laboratory sessions of the program. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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</table>

<table>
<thead>
<tr>
<th>RSPT 55D</th>
<th>MEDIATED STUDIES IN RESPIRATORY THERAPY IV</th>
<th>.5</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Degree &amp; Credit Status: Degree-applicable credit course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: RSPT 55C.</td>
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<tr>
<td></td>
<td>Grade Type: Letter Grade Only</td>
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</tr>
<tr>
<td></td>
<td>Not Repeatable.</td>
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<td></td>
<td>2 hours laboratory. (24 hours total per quarter.)</td>
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<td></td>
<td>Fourth of seven courses paralleling content taught in courses in the Respiratory Therapy Program. Content to include invasive and non-invasive ventilation strategies and management, arterial blood gases, and innovative approaches to the management of ARDS. Develop and strengthen concepts taught in the concurrent lecture and laboratory sessions of the program. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.</td>
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<tr>
<td>FHGE: Non-GE Applicable</td>
<td>Transferable: CSU</td>
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</tbody>
</table>
RSPT 55E  MEDIATED STUDIES IN RESPIRATORY THERAPY V  .5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: RSPT 55D.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours laboratory. (24 hours total per quarter.)
Fifth of seven courses paralleling content taught in courses in the Respiratory Therapy Program. Topics include neonatal and pediatric diseases, ECG and hemodynamic monitoring. Develop and strengthen concepts taught in the concurrent lecture and laboratory sessions of the program. Media materials will provide an alternative learning resource for non-traditional students. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 55F  MEDIATED STUDIES IN RESPIRATORY THERAPY VI  .5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: RSPT 55E.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours laboratory. (24 hours total per quarter.)
Sixth of seven courses paralleling content taught in courses in the Respiratory Therapy Program. Topics covered include: COPD/mechanical ventilation, head injury, acute congestive heart failure, near drowning, neonatal respiratory distress syndrome, hyperthermia with cardiac arrest, COPD/home care and pulmonary rehabilitation. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 55G  MEDIATED STUDIES IN RESPIRATORY THERAPY VII  .5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: RSPT 55F.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours laboratory. (24 hours total per quarter.)
Seventh of seven courses paralleling content taught in courses in the Respiratory Therapy Program. Students will take practice exams of the national entry level and registry examinations. Content will also include advanced PFT and basic spirometry. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 56  ORIENTATION TO HOSPITAL & PATIENT CARE I  1 Unit

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours clinical laboratory. (36 hours total per quarter.)
Introduction to the hospital setting and patient care. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 57  ORIENTATION TO HOSPITAL & PATIENT CARE II  2 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
6 hours clinical laboratory. (72 hours total per quarter.)
Application and practice of respiratory therapy skills in the clinical setting, including, but not limited to: floor care modalities, patient assessments, and non-invasive ventilation. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 60C  PULMONARY DIAGNOSTICS  3 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: RSPT 51C.
Grade Type: Letter Grade Only
Not Repeatable.
2.5 hours lecture, 2 hours laboratory. (54 hours total per quarter.)
Selection, performance, and interpretation of tests used to diagnose cardiopulmonary abnormalities. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted into the program.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 61A  ADULT MECHANICAL VENTILATION  4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisites: RSPT 50C and 51C.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Develops and enhances the concepts and skills essential to meet the needs of patients placed on invasive and non-invasive ventilation. Overview of modes of ventilation, humidification and medication delivery. Includes laboratory exercises of commonly used ventilators and patient-ventilator simulations. For continuing education purposes, new ventilators and state-of-the-art theories on ventilation will be presented based upon current research. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 61B  NEONATAL RESPIRATORY CARE  3 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: RSPT 61A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture, 3 hours laboratory. (60 hours total per quarter.)
In depth look at Neonatal Respiratory Care. Examination and assessment of the neonate. Neonatal Respiratory diseases and disorders including treatment and management. Preparation for the Neonatal Resuscitation Program certification. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 61C  HOME & REHABILITATIVE RESPIRATORY CARE  2 Units

Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Introduction to rehabilitative respiratory care. Discussion of respiratory therapy procedures and equipment used in the treatment of home care patients. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 61D  PEDIATRIC RESPIRATORY CARE  2 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: RSPT 61B.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
In depth look at Pediatric respiratory care. Examination and assessment of the pediatric patient. Pediatric Respiratory diseases and disorders including treatment and management. Preparation for the pediatric advanced life support certification. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree &amp; Credit Status</th>
<th>Prerequisites</th>
<th>Grade Type</th>
<th>FHGE: Non-GE Applicable</th>
<th>Transferable: CSU</th>
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<tbody>
<tr>
<td>RSPT 62</td>
<td>MANAGEMENT, RESUME &amp; NATIONAL BOARD EXAMINATION</td>
<td>1</td>
<td>Degree-applicable credit course</td>
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<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<tr>
<td>RSPT 63A</td>
<td>ADVANCED PATHOPHYSIOLOGY &amp; PATIENT MANAGEMENT</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>RSPT 51C</td>
<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<tr>
<td>RSPT 65</td>
<td>COMPUTER PATIENT SIMULATIONS</td>
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<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<tr>
<td>RSPT 70A</td>
<td>CLINICAL ROTATION I</td>
<td>2</td>
<td>Degree-applicable credit course</td>
<td>RSPT 50C</td>
<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<tr>
<td>RSPT 70B</td>
<td>CLINICAL ROTATION II</td>
<td>8</td>
<td>Degree-applicable credit course</td>
<td>RSPT 61A and 70A</td>
<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
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<tr>
<td>RSPT 70C</td>
<td>CLINICAL ROTATION III</td>
<td>8</td>
<td>Degree-applicable credit course</td>
<td>RSPT 70B</td>
<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<tr>
<td>RSPT 70D</td>
<td>CLINICAL ROTATION IV</td>
<td>8</td>
<td>Degree-applicable credit course</td>
<td>RSPT 70C</td>
<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<tr>
<td>RSPT 70E</td>
<td>CLINICAL ROTATION V</td>
<td>8</td>
<td>Degree-applicable credit course</td>
<td>RSPT 70D</td>
<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<tr>
<td>RSPT 71A</td>
<td>ORIENTATION TO INTERVENTIONAL PULMONOLOGY</td>
<td>2</td>
<td>Degree-applicable credit course</td>
<td></td>
<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>Transferable: CSU</td>
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<tr>
<td>RSPT 71B</td>
<td>CASE-BASED ANALYSIS &amp; CRITICAL THINKING IN DIAGNOSTIC INTERVENTIONAL PULMONOLOGY</td>
<td>2</td>
<td>Degree-applicable credit course</td>
<td></td>
<td>Letter Grade Only</td>
<td>Non-GE Applicable</td>
<td>Transferable: CSU</td>
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</table>
RSPT 84  FUNDAMENTALS OF PULMONARY DISEASE  3 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Review of pulmonary anatomy and physiology. Fundamentals of pulmonary diseases and pathology, including cancer staging.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 85  INTERVENTIONAL PULMONOLOGY THEORY & APPLICATION  3 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Provides the general principles of interventional pulmonology, Disease-specific application, including diagnostic and therapeutic interventions, techniques and procedures, will be introduced.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 86  INTERVENTIONAL PULMONOLOGY PROCEDURES  3 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture. (36 hours total per quarter.)
Basic and advanced interventional pulmonology procedures. Procedures to be covered will include bronchoscopy, thorascopy, endoscopy, airway access procedures and novel techniques.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 87A  INTERVENTIONAL PULMONOLOGY CLINICAL INTERNSHIP I  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours clinical laboratory. (36 hours total per quarter.)
Clinical application of basic interventional pulmonology procedures. Procedures will include bronchoscopy for diagnostic and therapeutic interventions, such as alveolar lavage.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 87B  INTERVENTIONAL PULMONOLOGY CLINICAL INTERNSHIP II  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours clinical laboratory. (36 hours total per quarter.)
Interpretation of diagnostic data and correlation to applied therapies. In addition to clinical application of procedures covered in RSPT 87A, advanced procedures may include (a) balloon dilation, (b) stent placement, (c) lung volume reduction and (d) foreign body removal.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 88  INTERVENTIONAL PULMONOLOGY RESEARCH PROJECT  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Research project on a specialized area of interventional pulmonology. Specific topics to be determined by the instructor.
FHGE: Non-GE Applicable  Transferable: CSU

RSPT 200L  INTRODUCTION TO RESPIRATORY THERAPY  1 Unit
Degree & Credit Status: Non-degree-applicable credit course
Advisory: Students are not required to have been admitted to the Respiratory Therapy Program.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture, 1 hour laboratory. (24 hours total per quarter.)
Introduction to the career of respiratory therapy. Role of the respiratory therapist, areas of specialization in the field, educational requirements and future outlook. Clinical tasks and skills will also be introduced.
FHGE: Non-GE Applicable  Transferable: CSU

SOCIAL SCIENCE

Business and Social Sciences
650.949.7322 foothill.edu/globalstudies/

SOSC 20  CROSS-CULTURAL PERSPECTIVES FOR A MULTICULTURAL SOCIETY  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
4 hours lecture. (48 hours total per quarter.)
Analysis of the multi-ethnic forms of cultural domination and its diverse manifestation in society, emphasizing European and Third World cultures. Examination of the values and practices of democratic participation in social institutions in those cultures. Review theories, concepts and research applicable to majority-minority issues.
FHGE: Non-GE Applicable  Transferable: None

SOSC 70R  INDEPENDENT STUDY IN SOCIAL SCIENCE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 -12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Social Science beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU/UC

SOSC 79  INTRODUCTION TO COMMUNITY/CIVIC ENGAGEMENT  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Introduction to community service as it relates to community organizations, businesses or civic institutions allowing students to gain skills in advocacy and civic engagement through community service experiences, research and reflection. Students explore experiential education, theories of service and service learning, strategies for facilitation and effective practice. The course integrates a practical experience in leading service learning projects. The course allows students to balance action with critical reflection in service learning practice.
FHGE: Non-GE Applicable  Transferable: CSU

FOOTHILL COLLEGE
SOCIOLOGY

Business and Social Sciences
650.949.7322 foothill.edu/sociology/

SOC 1  INTRODUCTION TO SOCIOLOGY  5 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in SOC 1H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to the field of sociology; the scientific study of human society and the contemporary world, and the interaction of individuals and groups in society. Analysis of major theories, concepts, methods, social institutions, and social processes. Development of a sociological imagination and social context analysis. Society in its social class, racial and gendered dynamics.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

SOC 1H  HONORS INTRODUCTION TO SOCIOLOGY  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in SOC 1.
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to the field of sociology; the scientific study of human society and the contemporary world, and the interaction of individuals and groups in society. Analysis of major theories, concepts, methods, social institutions, and social processes. Development of a sociological imagination and social context analysis. Society in its social class, racial and gendered dynamics. As an honors course, it is focused on reading and critically analyzing sociological literature and researching specific sociological topics.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

SOC 7  STATISTICS FOR THE BEHAVIORAL SCIENCES  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: One of the following: PSYC 1, 1H, SOC 1, 1H; MATH 105 or equivalent.
Advisory: UC will grant transfer credit for a maximum of one course from the following: PSYC 7, SOC 7, MATH 10 or 17--students are strongly encouraged to meet with a counselor for appropriate course selection; not open to students with credit in PSYC 7.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
For students majoring in psychology, sociology, and other behavioral sciences. Introduction to the basic statistical techniques and design methodologies used in behavioral sciences. Topics include descriptive statistics; probability and sampling distributions; statistical inference and power; linear correlation and regression; chi-square; t-tests, and ANOVA. Computations will be completed by hand and with the use of statistical software. Emphasis on the interpretation and relevance of statistical findings and the application of statistical concepts to real-world problems in the behavioral and social sciences.
FHGE: Communication & Analytical Thinking  Transferable: CSU/UC

SOC 8  POPULAR CULTURE  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Theoretical and methodological overview of American popular culture. A critical examination of the socio-historical development and contemporary forms of popular culture in America. The relationship of popular culture to individual, group and mass identity formation. Analysis of popular culture and its racial and class dimensions.
FHGE: American Cultures & Communities  Transferable: CSU/UC

SOC 10  RESEARCH METHODS & DESIGNS  5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisites: PSYC 1 or 1H; or PSYC 7, SOC 7, MATH 10, or MATH 17.
Advisory: One of the following: ENGL 1A, 1AH or 15 & 1T; not open to students with credit in PSYC 10.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Survey of the various quantitative and qualitative research methods. Emphasis on the research design, planning, experimental procedures, and the collection, analysis, interpretation, and reporting of data. Laboratory emphasis on group work, data entry, and analysis of data with statistical software.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

SOC 11  INTRODUCTION TO SOCIAL WELFARE  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Sociological perspective of social welfare and the social services system as a field of study and profession. Historical overview of social problems and development of the professional fields. Focus on range of sociological theory to explain development of social services systems, their core concepts, value systems and methods.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

SOC 14  SOCIOLOGY OF CRIME  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Examines the social context of crime and deviance. Topics may include theories of crime and deviance; the criminal justice system; white collar, organized, and street crime; social class, race, ethnicity, sex, gender, and crime; and legal implications of crime and deviance. Socioeconomic and multicultural issues emphasized throughout the course. Sociological concepts of deviance and social control. Theories of structural conditions contributing to conformity and non-conformity will be explored.
FHGE: Non-GE Applicable  Transferable: CSU/UC

SOC 15  LAW & SOCIETY  4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to the relationship of law, society and the individual. Institutional analysis of factors underlying the creation, maintenance, and change of legal systems. Theories of jurisprudence and practical problems of law enforcement and the administration of justice.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC
### SOC 19: ALCOHOL & DRUG ABUSE
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Introduction to problems of substance abuse. History and classification of alcohol and drug abuse. Equips human service workers and general public with knowledge about issues involved in alcohol and drug abuse. Intervention and rehabilitation programs as well as public policy paradigms are examined.
FHGE: Social & Behavioral Sciences
Transferable: CSU/UC

### SOC 20: MAJOR SOCIAL PROBLEMS
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
An identification and analysis of contemporary social problems including (1) their causes and consequences, (2) evaluations of proposed solutions, and (4) methods of intervention. Topics will vary.
FHGE: Social & Behavioral Sciences
Transferable: CSU/UC

### SOC 21: IN SOCIOLOGY
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Advisory: Not open to students with credit in PSYC 30.
4 hours lecture. (48 hours total per quarter.)
Survey of human behavior in relation to the social environment. Focus on human interaction and the shaping of diverse and commonly-shared attitudes, beliefs and worldviews by society, culture and social groups. Emphasis on how individuals are influenced behaviorally, emotionally, and cognitively. Topics include but not limited to the self, social cognition, aggression, interpersonal attraction, attitudes, social influence, prejudice and discrimination, gender, person perception, cultural norms, and conflict and peace-making.
FHGE: Social & Behavioral Sciences
Transferable: CSU/UC

### SOC 22: ASPECTS OF MARRIAGE & FAMILY
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey of empirical studies conducted by family sociologists from varied theoretical orientations. Focus on social influences affecting the American expressions of intimate life styles related to relationships, marriage and family systems. Exposure to the methods of social research.
FHGE: Social & Behavioral Sciences
Transferable: CSU/UC

### SOC 23: RACE & ETHNIC RELATIONS
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Focus on the meaning of race and ethnicity as it relates to intergroup relations in the U.S.A. Inclusive analysis of concepts, theories, socio-legal effects of the Civil Rights Movement, public policy and its impact on diverse racial and ethnic populations in the U.S.A. Historical and sociological assessment of majority-minority relations with emphasis on the perspectives of African-Americans, Hispanic/Latino-Americans, Asian-Americans and the indigenous Native American tribes. Demographic implications of race and ethnic relations on U.S.A.'s economic, political and educational institutions. Relationship among race, ethnicity and poverty.
FHGE: American Cultures & Communities, Social & Behavioral Sciences
Transferable: CSU/UC

### SOC 24: SOCIOLOGY OF SEXUALITY
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
4 hours lecture. (48 hours total per quarter.)
This course provides an introduction to human sexuality through the lens of the sociological imagination, a core concept in sociology. Using key theoretical concepts from the discipline, the course traces the following: the social construction of sexuality; the socio-historical transformation of ideas about sex and sexuality as they relate to gender, race, disability, sexual practice, and sexual representation; social movements and activism in opposition to sexual inequalities; contemporary debates about social issues, such as reproductive justice and the commercialization of sex; and sexuality as mediated through major social institutions, such as the legal system, the economy, politics, the family, and religion. Students will critically analyze their own and others' attitudes toward sexuality with particular attention to the formation of sexual identities and ideologies within a societal and cross-cultural context.
FHGE: Social & Behavioral Sciences
Transferable: CSU/UC

### SOC 54H: HONORS INSTITUTE SEMINAR
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in SOC 34 or 34H.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
A seminar in directed readings, discussions and projects in Sociology. Specific topics to be determined by the instructor.
FHGE: Non-GE Applicable
Transferable: CSU
SPANISH

Language Arts
650.949.7131 foothill.edu/spanish/

For information on clearing a foreign language prerequisite, please contact the Student & Faculty Support center at FHGetHelp@fhda.edu.

SPAN 1 ELEMENTARY SPANISH I 5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Development and practice of elementary speaking, listening, reading and writing skills in everyday language functions, with Spanish as the primary language of instruction. Language laboratory practice to reinforce pronunciation, grammar and syntax. Study of basic geographical, historical and cultural aspects of Spanish-speaking world areas.
FHGE: Non-GE Applicable  Transferable: CSU/UC

SPAN 2 ELEMENTARY SPANISH II 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: SPAN 1 or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Further development and practice of elementary speaking, listening, reading and writing skills in everyday language function, with Spanish as the primary language of instruction. Language laboratory practice to reinforce pronunciation, grammar and syntax. Study of basic geographical, historical and cultural aspects of Spanish-speaking world areas.
FHGE: Non-GE Applicable  Transferable: CSU/UC

SPAN 3 ELEMENTARY SPANISH III 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: SPAN 2 or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Further development and practice of elementary speaking, listening, reading and writing skills in everyday language functions, with focus on greater structural accuracy and communicative competence, and with Spanish as the language of instruction. Language laboratory practice to reinforce pronunciation, grammar and syntax. Study of basic geographical, historical and cultural aspects of Spanish-speaking world areas.
FHGE: Non-GE Applicable  Transferable: CSU/UC

SPAN 4 INTERMEDIATE SPANISH I 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: SPAN 3 or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Introduction to the reading and discussion of texts dealing with the literature, arts, geography, history and culture of the Spanish-speaking world. Review and further development of the grammatical structures of first-year Spanish with emphasis on building communicative competence and expanding vocabulary about familiar topics and idiomatic usage. Emphasis on present indicative and subjunctive. Writing and reading assignments based upon topics discussed in class.
FHGE: Humanities  Transferable: CSU/UC

SPAN 5 INTERMEDIATE SPANISH II 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: SPAN 4 or equivalent.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Further expansion of the reading and discussion of texts dealing with the literature, arts, geography, history and culture of the Spanish-speaking world. Review and further development of the grammatical structures of first-year Spanish with emphasis on building communicative competence and expanding concrete vocabulary about new topics, and idiomatic usage. Emphasis on past tenses and past subjunctive. Writing and reading assignments based upon topics discussed in class.
FHGE: Humanities  Transferable: CSU/UC

SPAN 6 INTERMEDIATE SPANISH III 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: SPAN 5.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Extensive reading and discussion of texts dealing with the literature, arts, geography, history and culture of the Spanish-speaking world, with emphasis on literature and art. Practice of advanced grammatical structures, and expansion of abstract vocabulary, and idiomatic usage. Writing and reading assignments based upon topics discussed in class.
FHGE: Humanities  Transferable: CSU/UC

SPAN 13A INTERMEDIATE CONVERSATION I 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: SPAN 3.
Advisory: May be taken concurrently with SPAN 4.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Review and development of oral and listening communication skills in the targeted functions studied in first-year Spanish with attention to fluency, vocabulary, idiom, and pronunciation. Emphasis on the difference between spoken and literary Spanish as well as the variation in language depending upon the topic, the setting, and the country. Discussion and analysis of cultural and historical issues based on authentic texts, current news broadcasts, and/or films.
FHGE: Humanities  Transferable: CSU/UC
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<tr>
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<th>Units</th>
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<tr>
<td>SPAN 13A</td>
<td>ELEMENTARY SPANISH</td>
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<td>CSU/UC</td>
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<tr>
<td>SPAN 13B</td>
<td>INTERMEDIATE CONVERSATION II</td>
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<td>Degree-applicable credit course</td>
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<tr>
<td>SPAN 14A</td>
<td>ADVANCED CONVERSATION I</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>CSU/UC</td>
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<tr>
<td>SPAN 14B</td>
<td>ADVANCED CONVERSATION II</td>
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<td>Degree-applicable credit course</td>
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<tr>
<td>SPAN 25A</td>
<td>ADVANCED COMPOSITION &amp; READING I</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>CSU/UC</td>
</tr>
<tr>
<td>SPAN 25B</td>
<td>ADVANCED COMPOSITION &amp; READING II</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>CSU/UC</td>
</tr>
<tr>
<td>SPAN 51</td>
<td>SPANISH FOR HEALTH CARE WORKERS</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>CSU</td>
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<tr>
<td>SPAN 100</td>
<td>ELEMENTARY SPANISH CONVERSATION I</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>None</td>
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<tr>
<td>SPAN 101</td>
<td>ELEMENTARY SPANISH CONVERSATION II</td>
<td>3</td>
<td>Degree-applicable credit course</td>
<td>None</td>
</tr>
<tr>
<td>SPAN 192</td>
<td>TRAINING FOR SPANISH TUTORS</td>
<td>1</td>
<td>Degree-applicable credit course</td>
<td>None</td>
</tr>
</tbody>
</table>
FHGE: Non-GE Applicable  Transferable: CSU/UC  satisfies the college orientation requirement for new students.

of higher education; educational goals and program planning. This course special classroom accommodations related to disabilities; California system transition concerns from high school to post-secondary for students requiring College academic policies, resources, campus, programs and services; tran Orientation to college for the first time college student. Includes Foothill 1 hour lecture. (12 hours total per quarter.)

Not Repeatable.

Grade Type: Pass/No Pass Only

Advisory: Not open to students with credit in CNSL 5 or SPED 80.

Degree & Credit Status: Degree-applicable credit course

SPED 1 INTRODUCTION TO DISABILITIES 4 Units

Degree & Credit Status: Degree-applicable credit course

Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; when offered as an online course, the student should be proficient with the use of a computer, Internet and email; not open to students with credit in SPED 61.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

4 hours lecture. (48 hours total per quarter.)

Overview of all major categories and characteristics of disabilities. Physical, sensory, developmental and learning disabilities discussed. Cultural/exper-iential aspects of disabilities from the perspectives of disabled individuals explored through readings and guest speakers. Contrasts disabled with non-disabled culture including cross-cultural perspectives of the disabled experience. Emphasis placed on recognition of strengths and abilities to provide strategies for instruction and accommodations.

FHGE: American Cultures & Communities, Lifelong Understanding Transferable: CSU/UC

SPED 2 PSYCHOLOGICAL ASPECTS OF DISABILITY 4 Units

Degree & Credit Status: Degree-applicable credit course

Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249; familiarity with the internet & word processing; not open to students with credit in SPED 62.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

4 hours lecture. (48 hours total per quarter.)

Psychological aspects of disability, including psychosocial, cultural, and physical considerations of disability and illness. Examines the effects of illness and disability on the individual, family, and society as a whole. Focuses on the historical and current perspectives on illness and disability, the interventions and resources available, and future trends in the field. Discussions include a wide range of disabilities.

FHGE: Social & Behavioral Sciences Transferable: CSU/UC

SPED 8 INTRODUCTION TO COLLEGE & ACCOMMODATIONS 1 Unit

Degree & Credit Status: Degree-applicable credit course

Advisory: Not open to students with credit in CNSL 5 or SPED 80.

Grade Type: Pass/No Pass Only

Not Repeatable.

1 hour lecture. (12 hours total per quarter.)

Orientation to college for the first time college student. Includes Foothill College academic policies, resources, campus, programs and services; transition concerns from high school to post-secondary for students requiring special classroom accommodations related to disabilities; California system of higher education; educational goals and program planning. This course satisfies the college orientation requirement for new students.

FHGE: Non-GE Applicable Transferable: CSU/UC

FHGE: Humanities Transferable: CSU/UC

THTR 1 INTRODUCTION TO THEATRE 4 Units

Degree & Credit Status: Degree-applicable credit course

Advisory: Not open to students with credit in DRAM 1.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

4 hours lecture. (48 hours total per quarter.)

Live performance in an electronic age - an overview of the status of live theatre, including its historical, cultural and spiritual roots. Focuses on the relationship of theatre to various cultures throughout history and on the contributions of significant individual artists. Introduces the elements of the production process, including play writing, acting, directing, design, and criticism. A survey of different periods, styles and genres of theatre through play reading, discussion, films and critiquing live theatre. Required attendance at live theatre performances.

FHGE: Humanities Transferable: CSU/UC

THTR 2A HISTORY OF DRAMATIC LITERATURE: CLASSICAL TO MOLIERE 4 Units

Degree & Credit Status: Degree-applicable credit course

Prerequisite: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.

Advisory: Not open to students with credit in DRAM 2A or ENGL 42A.

Grade Type: Letter Grade or Pass/No Pass

Not Repeatable.

4 hours lecture. (48 hours total per quarter.)

The study of the history of theatre from its origins in the East and West through the 17th century. The history and development of theatre and drama are studied through reading and analyzing representative masterpieces of dramatic literature from Aeschylus to Moliere in relationship to cultural, political and social conditions of the time.

FHGE: Humanities Transferable: CSU/UC

Foothill offers theatre arts activity courses in four different family categories. No single course may be repeated. Enrollment is limited to six courses per family within the Foothill-De Anza Community College District. Please refer to the De Anza College Catalog for the corresponding families and courses.

Acting Family: THTR 20A, 20B, 20C, 43C, 43E & 63A

Production-Performance Family: THTR 46A, 46B, 49A, 49B, 49C & 49D

Production-Technical Family: THTR 45A, 45B, 45C, 45D, 45E & 45F

Theatre Voice Family: MUS 47A or THTR 47A, MUS 47B or THTR 47B, MUS 47C or THTR 47C, MUS 47D or THTR 47D, THTR 48A, MUS 48B or THTR 48B & MUS 48C or THTR 48C
THTR 2B HISTORICAL/DRAMATICAL LITERATURE: MOLIERE TO MODERN 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESL 125 & ESL 249.
Advisory: Not open to students with credit in DRAM 2B or ENGL 42B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
The study of the history of theatre from the Restoration through current trends. The history and development of theatre and drama are studied through reading and analyzing representative masterpieces of dramatic literature from the 17th Century to the present day in relationship to the cultural, political and social conditions of the time.
FHGE: Humanities Transferable: CSU/UC

THTR 2F HISTORY OF AMERICAN MUSICAL THEATRE 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in MUS 2F.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
An introductory survey of the history of the American musical theatre genre. Includes roots in British music halls, Viennese operetta and African American jazz through the golden age of the musical and up to the contemporary Broadway stage. Emphasis will be placed on genres and styles, as well as the key composers, lyricists, librettists, directors, producers, designers, choreographers and performers. Examines how the musical mirrors contemporary social and political events.
FHGE: Humanities Transferable: CSU/UC

THTR 7 INTRODUCTION TO DIRECTING 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: THTR 20A or equivalent beginning-level acting course; not open to students with credit in THTR 7 or 20B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
The qualifications of the director; the choice of plays for production; auditions and methods of casting; preparation of the play script; building the rehearsal schedule; fundamentals of composition, movement, stage business and characterization, as applied to the directing of plays.
FHGE: Non-GE Applicable Transferable: CSU/UC

THTR 8 MULTICULTURAL THEATRE ARTS IN MODERN AMERICA 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in DRAM 8.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
A comparative study of the important post-modern American theatre movements from the 1950s to the present day examining the specific cultural traditions of these performances. Focus will be on the performance artists and major influences of African Americans, Asian Americans, Native Americans, European Americans, and Chicano/Latino Americans and the cultural movements that inspired these performances.
FHGE: American Cultures & Communities, Humanities Transferable: CSU/UC

THTR 12A STAGE & SCREEN 4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
An analysis of narrative and plot dissemination through an overview comparison between the popular media of live performance and film or video. Ranging from ancient civilizations to the contemporary, source material will be drawn from a broad perspective of culturally diverse works with a specific eye towards comparing the personal and audience impact, the advantages and disadvantages, inherent between the two media by analyzing the values and properties of both through shared works of origin.
FHGE: Humanities Transferable: CSU/UC

THTR 20A ACTING I 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Acting family of activity courses; not open to students with credit in DRAM 20A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Introduction to the craft of acting, including theory and technique emphasizing body movement, voice production, articulation, characterization principles of motivation, scene analysis, cultural empathy through standard theatre games, exercises, monologues, scenes and the background research thereof.
FHGE: Non-GE Applicable Transferable: CSU/UC

THTR 20B ACTING II 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: THTR 20A.
Advisory: This course is included in the Acting family of activity courses; not open to students with credit in DRAM 20B.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 1 hour laboratory. (60 hours total per quarter.)
Further development of concepts introduced in THTR 20A, with emphasis to expanding the students' performance potential through probing greater depths of character analysis and text interpretation.
FHGE: Non-GE Applicable Transferable: CSU/UC

THTR 20C ACTING III 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: THTR 20B.
Advisory: THTR 20B or equivalent highly recommended; this course is included in the Acting family of activity courses; not open to students with credit in DRAM 20C.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Further development of concepts introduced in THTR 20A and 20B with focus on the performance of selected scenes from works of specific periods to acquaint students with the breadth of theatre performance genres.
FHGE: Non-GE Applicable Transferable: CSU/UC

THTR 21A SCENERY & PROPERTY CONSTRUCTION 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in DRAM 21A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 6 hours laboratory. (96 hours total per quarter.)
The theory and practice of creating and using scenery and properties for dramatic presentations. Students will learn basic vocabulary, processes, tools and materials used in the production of scenery and properties for the stage. Practical application and safe use of basic woodworking tools used for creating scenery and properties for Theatre Arts productions.
FHGE: Non-GE Applicable Transferable: CSU/UC
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<tr>
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<tr>
<td>THTR 21B</td>
<td>INTERMEDIATE SCENERY &amp; PROPERTY CONSTRUCTION</td>
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<tr>
<td>THTR 21C</td>
<td>ADVANCED SCENERY &amp; PROPERTIES CONSTRUCTION</td>
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<tr>
<td>THTR 25</td>
<td>INTRODUCTION TO FASHION &amp; COSTUME CONSTRUCTION II</td>
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<tr>
<td>THTR 25B</td>
<td>FASHION &amp; COSTUME CONSTRUCTION II</td>
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<tr>
<td>THTR 25C</td>
<td>FASHION &amp; COSTUME CONSTRUCTION III</td>
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<tr>
<td>THTR 26</td>
<td>INTRODUCTION TO FASHION HISTORY &amp; COSTUME DESIGN</td>
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<tr>
<td>THTR 27</td>
<td>LIGHTING DESIGN &amp; TECHNOLOGY</td>
<td>4</td>
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<tr>
<td>THTR 31</td>
<td>MANAGEMENT FOR THE THEATRE &amp; STAGE</td>
<td>4</td>
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</tbody>
</table>

**Degree & Credit Status:** Degree-applicable credit course

**Prerequisites:**
- THTR 21A
- THTR 21B
- THTR 25

**Advisory:** Not open to students with credit in DRAM 21B.

**Grade Type:** Letter Grade or Pass/No Pass

**Not Repeatable.**

**FHGE:** Non-GE Applicable

**Transferable:** CSU/UC

A survey of western historic fashion and costume for women and men from ancient times to the present, including the cultural and political events that shaped each era and its clothing. An introduction to the design elements: color, line, form texture and silhouette and a brief introduction to the use of graphic techniques in the presentation of fashion and costume designs. Analysis of the artistic styles of each era as they relate to understanding costume detail and stylization.

A survey of lighting design for the theatre, film and television. An introduction to the basic elements of electrical wiring, lighting instruments, lighting control devices, and lighting special effects. Basic lighting design principles of color, intensity, direction and movement. Use of computer to design control devices, and lighting special effects. Basic lighting design principles of color, intensity, direction and movement. Use of computer to design simple stage lighting plans.
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<th>Advisory</th>
<th>Prerequisite:</th>
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<tr>
<td>THTR 43A</td>
<td>SCRIPT ANALYSIS</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>Presentation of the fundamental building blocks of understanding play scripts through an in-depth methodology of reading and analysis. Exploration of the foundational elements of Modern Realistic theatrical texts from study to analysis of text as intended for production. Groundwork provides the basis by which subsequent exploration of production possibilities, challenges and genres can be developed.</td>
<td></td>
<td>THTR 20A</td>
<td>Letter Grade Only</td>
<td>CSU/UC</td>
</tr>
<tr>
<td>THTR 42</td>
<td>INTRODUCTION TO THEATRE</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>A survey of the theory and practice of theatrical design using traditional and digital tools. Introduces basic concepts applicable to scenery, lighting, sound, costumes, makeup and properties. Coursework includes research and analysis, sketching and drafting, rendering and model making and the use of computer graphics software and equipment to create three-dimensional designs for the performing arts, film, and television. Introduction of equipment and construction techniques through demonstration and laboratory experience.</td>
<td></td>
<td>THTR 44 or THTR 21A</td>
<td>Letter Grade or Pass/No Pass</td>
<td>CSU/UC</td>
</tr>
<tr>
<td>THTR 43C</td>
<td>FOUNDATIONS IN CLASSICAL</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>Introduction to the specific acting challenges presented by performing classical scripts, pre-18th century. Incorporate skills of language analysis, verbal acumen and physical interpretation, including exploration of body awareness into performance preparation and execution as they specifically relate to performing classical texts.</td>
<td></td>
<td>THTR 20A</td>
<td>Letter Grade Only</td>
<td>CSU/UC</td>
</tr>
<tr>
<td>THTR 43E</td>
<td>IMPROVISATION</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>Presentation of the fundamentals and graduating skills of organic performance without script or text. Practical application of the theories of improvisational skills, universally translated to virtually all forms of improvisation, towards performance.</td>
<td></td>
<td>THTR 20A</td>
<td>Letter Grade Only</td>
<td>CSU/UC</td>
</tr>
<tr>
<td>THTR 45A</td>
<td>TECHNICAL THEATRE IN PRODUCTION</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews.</td>
<td></td>
<td>THTR 45A</td>
<td>Letter Grade or Pass/No Pass</td>
<td>CSU/UC</td>
</tr>
<tr>
<td>THTR 45B</td>
<td>TECHNICAL THEATRE IN PRODUCTION II</td>
<td>4</td>
<td>Degree-applicable credit course</td>
<td>Students will gain practical experience in the application of production responsibilities in any of the following theatre technical areas: construction, scenery, properties, costume, lighting, sound, special effects and running crews, based on the students' level of experience and the demands of the current department productions. Students will assume greater responsibility for the planning and scheduling of work in their assigned area.</td>
<td></td>
<td>THTR 45B</td>
<td>Letter Grade or Pass/No Pass</td>
<td>CSU/UC</td>
</tr>
</tbody>
</table>

**Degree & Credit Status:** Degree-applicable credit course

**Advisory:** Course includes rigorous physical activity; not open to students with credit in DRAM 58 or THTR 58.

**Grade Type:** Letter Grade Only

**Not Repeatable.**
THTR 45C  TECHNICAL THEATRE IN PRODUCTION III
4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: THTR 45B.
Advisory: Students must meet with the instructor during the first week of the quarter to arrange hours and assignments; this course is included in the Production-Technical family of activity courses; not open to students with credit in THTR 99C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 9 hours laboratory. (120 hours total per quarter.)
Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, production management, or technical department management.
FHGE: Non-GE Applicable  Transferable: CSU/UC

THTR 45D  TECHNICAL THEATRE IN PRODUCTION IV
2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in THTR 21A; students must meet with the instructor during the first week of the quarter to arrange hours and assignments; hours are typically during evenings and on weekends during the 6th-10th weeks of the quarter; this course is included in the Production-Technical family of activity courses; not open to students with credit in THTR 99D.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
6 hours laboratory. (72 hours total per quarter.)
Students will gain practical experience backstage functions of theatre crews. Students will work backstage during the final rehearsals and performances for the department production.
FHGE: Non-GE Applicable  Transferable: CSU/UC

THTR 45E  TECHNICAL THEATRE MANAGEMENT IN PRODUCTION
6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Completion of or concurrent enrollment in THTR 21A and 45A; lab hours will occur on specific evenings and weekends during the quarter; required meeting with instructor during first week of quarter to assign responsibilities and hours per production schedule; this course is included in the Production-Technical family of activity courses; not open to students with credit in THTR 99E.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 12 hours laboratory. (168 hours total per quarter.)
Students will gain practical experience in the application of production management responsibilities in any of the following: stage management, house management, production management, or technical department management.
FHGE: Non-GE Applicable  Transferable: CSU/UC

THTR 45F  TECHNICAL THEATRE MANAGEMENT IN PRODUCTION II
6 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: THTR 45E.
Advisory: This course is included in the Production-Technical family of activity courses; not open to students with credit in THTR 99F.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
2 hours lecture, 12 hours laboratory. (168 hours total per quarter.)
Students will gain practical experience in the application of theatre management responsibilities in any of the following: stage management, house management, production management, or technical department management. Students will be expected to assume responsibility for assembling and organizing the work of several groups or departments in the successful creation of a large theatrical production.
FHGE: Non-GE Applicable  Transferable: CSU/UC

THTR 46A  THEATRE DEVELOPMENT WORKSHOP I
2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Production-Performance family of activity courses; not open to students with credit in THTR 50.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
This course teaches the full development of an organic, original production from inception to performance. Under the guidance and supervision of the instructor who initiates the process, students will all contribute to produce a full-length production consisting of several student-generated short plays. Beginning students will focus as actors and production support as needed. The quarter culminates with several public performances.
FHGE: Non-GE Applicable  Transferable: CSU/UC

THTR 46B  THEATRE DEVELOPMENT WORKSHOP II
2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Production-Performance family of activity courses; not open to students with credit in THTR 50B.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
This course delves into the full development of an organic, original production from inception to performance. Students will produce a full-length production consisting of several student-generated short plays. Focus on writing skills and creative contributions to the shows content. Student responsibilities may extend to additional areas of acting and production support. The quarter culminates with several public performances.
FHGE: Non-GE Applicable  Transferable: CSU/UC

THTR 46C  THEATRE DEVELOPMENT WORKSHOP III
2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 3 hours laboratory. (48 hours total per quarter.)
This course delves into the full development of an organic, original production from inception to performance. Students will produce a full-length production consisting of several student-generated short plays. Focus on design, directing and production coordination of all artistic elements of the show. Student responsibilities may extend to additional areas of acting and other production support. The quarter culminates with several public performances.
FHGE: Non-GE Applicable  Transferable: CSU/UC
THTR 47A        INTRODUCTION TO MUSICAL THEATRE   6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Theatre Voice family of activity courses; not open to students with credit in MUS 47A or THTR 47.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
18 hours laboratory. (216 hours total per quarter.)
This course will introduce the fundamentals of musical theatre performance through the rehearsal and performance of a fully staged musical theatre production. Students are required to attend rehearsals and performances.

THTR 47B        INTERMEDIATE MUSIC THEATRE PRODUCTION WORKSHOP   6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Theatre Voice family of activity courses; not open to students with credit in MUS 47B or THTR 47X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
18 hours laboratory. (216 hours total per quarter.)
This course will develop technical skills required at the intermediate level of musical theatre performance through the rehearsal and performance of a fully staged musical theatre production. Students are required to attend rehearsals and performances.

THTR 47C        ADVANCED MUSIC THEATRE PRODUCTION WORKSHOP   6 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MUS 47B or THTR 47B.
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Theatre Voice family of activity courses; not open to students with credit in MUS 47C.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
18 hours laboratory. (216 hours total per quarter.)
Assists the student to develop technical skills required at the advanced level of musical theatre performance through the rehearsal and performance of a fully staged musical theatre production.

THTR 47D        ADVANCED MUSIC THEATRE PRODUCTION WORKSHOP II   6 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MUS 47C or THTR 47C.
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Theatre Voice family of activity courses; not open to students with credit in MUS 47D.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
18 hours laboratory. (216 hours total per quarter.)
This course will assist the student to develop technical skills required at the advanced level of musical theatre in the areas of stage direction or choreography through the rehearsal and performance of a fully staged musical theatre production.

THTR 48A        VOCAL PRODUCTION & SPEECH   4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: This course is included in the Theatre Voice family of activity courses.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
An introduction to the fundamentals of vocal production and the application of those principles to speech for performance intent. Topics will include the basics of physiology of sound production, breath support, use of natural resonators, warm-up techniques, diction and text communication, dialect recognitions and employment. These fundamental techniques will be applied to a broad cultural landscape of dramatic literature at basic levels.

THTR 48B        SINGING TECHNIQUE FOR MUSICAL THEATRE   4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: MUS 13A, 13B and 13C; this course is included in the Theatre Voice family of activity courses; not open to students with credit in MUS 48B.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Practical introduction to the fundamentals of singing for musical theatre repertoire. Students will explore the principals of healthy vocal production in solo and/or ensemble singing to develop the singing voice through exercises and repertoire from the Standard American Musical Theatre. Songs will be developed with strong emphasis on character development and communication.

THTR 48C        MUSICAL THEATRE REPERTOIRE FOR SINGERS   4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: MUS 48B or THTR 48B.
Advisory: MUS 13C; this course is included in the Theatre Voice family of activity courses; not open to students with credit in MUS 48C.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Vocal techniques and styles as utilized in musical theater. Instruction includes development of singing skills, basic body movement, acting technique, interpretation of Broadway song literature in a staged performance. Students are required to prepare a final project excerpted from a standard works. Attendance at all scheduled performances is required.
THTR 48G       INTRODUCTION TO VOICE-OVER ACTING       4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: THTR 20A.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to voice-over acting, providing an overview of required skills, general industry knowledge, and career opportunities. Instruction and practice in techniques of the various genres and performance styles, including character (animation, video games, toys), commercial (radio, TV, online), and narration (audio books, documentaries, corporate training videos, e-learning, websites). Fundamental components also include microphone technique, home studio setup, auditioning and marketing.
FHGE: Non-GE Applicable Transferable: CSU/UC

THTR 49A       PERFORMANCE PRODUCTION I       6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Production-Performance family of activity courses; not open to students with credit in THTR 49.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 15 hours laboratory. (192 hours total per quarter.)
Supervised participation as a performer in scheduled non-musical productions of the Theatre Arts Department with a designated emphasis towards public performance. Culminates in a fully staged theatrical production.
FHGE: Non-GE Applicable Transferable: CSU/UC

THTR 49B       PERFORMANCE PRODUCTION II       6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Production-Performance family of activity courses; not open to students with credit in THTR 49X.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 15 hours laboratory. (192 hours total per quarter.)
Supervised performance participation in scheduled productions of the Theatre Arts Department with a specific target towards text interpretation and commitment to characterization through live public performance. Culminates in a fully staged theatrical production.
FHGE: Non-GE Applicable Transferable: CSU/UC

THTR 49C       PERFORMANCE PRODUCTION III       6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Production-Performance family of activity courses; not open to students with credit in THTR 49Y.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 15 hours laboratory. (192 hours total per quarter.)
Supervised participation as a performer in scheduled non-musical productions of the Theatre Arts Department with a designated emphasis towards advanced vocal acumen and heightened physical embodiment through live public performance. Culminates in a fully staged theatrical production.
FHGE: Non-GE Applicable Transferable: CSU/UC

THTR 49D       PERFORMANCE PRODUCTION IV       6 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Production-Performance family of activity courses.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
1 hour lecture, 15 hours laboratory. (192 hours total per quarter.)
Supervised performance participation in scheduled productions of the Theatre Arts Department with specific inclusion through a rehearsal into live public performance context of augmented, nuanced acting skill premises and enhanced script interpretation of cultural and socio-economic circumstances. Culminates in a fully staged theatrical production.
FHGE: Non-GE Applicable Transferable: CSU/UC

THTR 57       ACTOR MARKETING STRATEGIES       4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: THTR 20A; not open to students with credit in THTR 43G.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Developing effective marketing strategies for a career in theatre. The actor’s process in preparation for theatrical auditions, selection of appropriate audition performance pieces for the presentation of self in various audition settings, and the development of industry standard self-promotion materials.
FHGE: Non-GE Applicable Transferable: CSU

THTR 63A       FILM & TELEVISION ACTING WORKSHOP       4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: THTR 20A; this course is included in the Acting family of activity courses.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Application of concepts developed in the stage acting classes with the necessary adaptations required for film and television auditioning and performance. Work with the variety of styles currently used in film and television, including commercial, dramatic, documentary and industrial. Class time will be divided between lecture, workshops and on-camera performance time to learn and experiment with the subject matter.
FHGE: Non-GE Applicable Transferable: CSU

THTR 70R       INDEPENDENT STUDY IN THEATRE ARTS       1 Unit
THTR 71R       2 Units
THTR 72R       3 Units
THTR 73R       4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Theatre Arts beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of assignment and the unit value assigned for successful completion. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable Transferable: CSU
V T 51  INTRODUCTION TO VETERINARY TECHNOLOGY  2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in APAV 51.
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (24 hours total per quarter.)
Introduction to the profession of veterinary technology. Orientation to the program requirements and curriculum. Overview of program structure and student services. Review and practice of library skills. Prerequisite course for several courses in veterinary technology program. Survey of the role of the veterinary assistant and registered veterinary technician in the workplace. Survey of employment opportunities and areas of specialization. Ethics and professionalism. Laws and regulations governing veterinary technicians. Introduction to basic animal care skills and clinical procedures.
FHGE: Non-GE Applicable  Transferable: CSU

V T 51A  FRESHMAN SEMINAR  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Provides enrichment of the core curriculum of the Veterinary Technology Program. Students will develop or improve study skills, time management, professionalism, communication, and conflict resolution. Lectures, discussion, and workshop format. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 51B  CURRENT TOPICS IN VETERINARY TECHNOLOGY II  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in V T 50B.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. This is a 6 week course. (12 hours total per quarter.)
Provides enrichment of the core curriculum of the Veterinary Technology Program. Presenters will include veterinarians, veterinary specialists, veterinary technicians, animal care management professionals, and educators. Lectures, lecture-demonstrations, multimedia presentations, and live demonstrations, by professionals in veterinary medicine. Content consists of relevant topics related to concurrent coursework. Presenters or topics are in a specialty that will help to introduce or develop interest in that specialty. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 51C  SERVICE LEARNING & LEADERSHIP FOR VETERINARY NURSES  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Provides enrichment of the core curriculum of the Veterinary Technology Program. Students will participate in a service learning activity of their choosing within the veterinary field. Students will have lectures on service learning activities and opportunities. Students will explore different ways of being leaders, in preparation for success in a professional environment. Students will reflect over their school year and create summer study guides to increase student success. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 51D  SENIOR SEMINAR  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Provides enrichment of the core curriculum of the Veterinary Technology Program. Students will focus on senior year time management. They will reflect on the summer study guides and continue to identify best practices for studying. They will participate in weekly instructor guided study sessions covering their core curriculum courses this quarter. They will also develop study techniques that will assist them in being successful in future quarters. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 51E  CURRENT TOPICS IN VETERINARY TECHNOLOGY V  1 Unit
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in V T 50E.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. This is a 6 week course. (12 hours total per quarter.)
Provides enrichment of the core curriculum of the Veterinary Technology Program. Presenters will include veterinarians, veterinary specialists, veterinary technicians, animal care management professionals, and educators. Lectures, lecture-demonstrations, multimedia presentations, and live demonstrations, by professionals in veterinary medicine. Content consists of relevant topics related to concurrent coursework. Presenters or topics are in a specialty that will help to introduce or develop interest in that specialty. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 51F  CAREER EXPLORATION FOR VETERINARY NURSES  1 Unit
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
1 hour lecture. (12 hours total per quarter.)
Provides enrichment of the core curriculum of the Veterinary Technology Program. Content consists of relevant topics related to concurrent coursework. Lectures, lecture-demonstrations, multimedia presentations, live demonstrations, or hands-on workshops presented on a weekly basis. Students will identify the path that their career will take them and will research what avenues they should take to get there. Students will also work in group settings to further strengthen their interpersonal communication skills. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 52A  VETERINARY ASSISTING I  5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
First in a two-course series in the theory and practice of veterinary assisting focusing on the knowledge, skills, and attitudes required for competent support to the veterinarian (DVM) and to the registered veterinary technician (RVT). Emphasis is on the practical aspects of front office management, working as part of the veterinary health care team. Entirely online and may be taken as a stand-alone class or may be combined with V T 52B and V T 88A to earn the Certificate of Achievement in Veterinary Assisting.
FHGE: Non-GE Applicable  Transferable: CSU
ANIMAL NURSING
V T 53C           INTRODUCTION TO LARGE 2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 52A and V T 88A to earn the Certificate of Achievement in Veterinary Assisting.
Not Repeatable.
Grade Type: Letter Grade Only

V T 52B           VETERINARY ASSISTING II 5 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
5 hours lecture. (60 hours total per quarter.)
Second in a two-course series in the theory and practice of veterinary assisting focusing on the knowledge, skills, and attitudes required for competent paraprofessional support to the veterinarian (DVM) and to the registered veterinary technician (RVT). Prepare for an exciting career as a veterinary assistant by learning the essential knowledge and hands-on skills. Emphasis is on the practical aspects of front office management, working as part of the veterinary health care team, basic animal care, and fundamentals of patient management under direct supervision. Entirely online and may be taken as a stand-alone class or combined with V T 52A and V T 88A to earn the Certificate of Achievement in Veterinary Assisting.

V T 53A           VETERINARY MEDICAL TERMINOLOGY 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in APAV 53A.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
A guided self-study of veterinary medical terminology as a fundamental communication skill. Basic word parts and rules of word construction. A review of common medical terms pertaining to the different body systems, with emphasis on those terms relevant for veterinary medicine. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

V T 53B           MEDICAL CALCULATIONS FOR VETERINARY NURSES 2 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Not open to students with credit in APAV 53B.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Applied mathematics as a fundamental communication and technical skill. Review of calculations involving fractions, decimals, ratios and proportions, unit conversions, and algebraic equations. Clinical medical calculations utilized in preparation and administration of drugs, dosage determinations, intravenous fluid infusion, and prescription dispensing. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

V T 54A           COMPARATIVE VETERINARY ANATOMY & PHYSIOLOGY FOR THE VETERINARY TECHNICIAN 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: CHEM 30A or equivalent.
Advisory: Not open to students with credit in APAV 54A.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Comparative veterinary anatomy and physiology for veterinary technicians. Clinically relevant veterinary anatomy and physiology, including a discussion of the similarities and differences among the major domestic species. Emphasis is placed on the normal structure and function of the major organ systems as the foundation for understanding pathology and the pathophysiology of disease. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

V T 54B           COMPARATIVE VETERINARY ANATOMY & PHYSIOLOGY FOR THE VETERINARY TECHNICIAN 5 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 54A.
Advisory: Not open to students with credit in APAV 54B.
Grade Type: Letter Grade Only
Not Repeatable.
4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Comparative anatomy and physiology for veterinary technicians. Clinically relevant anatomy and physiology of the major domestic animals and birds, and includes a discussion of the similarities and differences among the species. Emphasis is placed on the normal structure and function of the major organ systems as the foundation for understanding pathology and pathophysiology of disease. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

V T 55           SMALL ANIMAL NURSING I 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: BIOL 41.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Intended for the pre-clinical training of veterinary technology students. The following topics are covered: occupational health and safety, animal handling and restraint, administration of medication, venipuncture and physical exams. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

V T 56           SMALL ANIMAL NURSING II 4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 55.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Pre-clinical training of veterinary technology students in diagnostic and nursing skills. Nursing skills will include wound care and bandaging, fluid therapy principles and practice, aseptic technique. Diagnostic skills will include those common in small animal practice: blood pressure and cardiac monitoring, ophthalmic and dermatologic assessments. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
V T 57L  ADVANCED SMALL ANIMAL NURSING  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 56.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Practical application of animal care skills and principles of animal care and management. Opportunity to participate in the health care team in a supervisory role with increased organizational responsibility. Emphasis on nursing care and diagnostic nursing for acute and chronic conditions. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 61  ANIMAL DISEASES  6 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: BIOL 41.
Grade Type: Letter Grade Only
Not Repeatable.
6 hours lecture. (72 hours total per quarter.)
Advanced study of the common diseases of domestic animals with emphasis on the dog and cat. Practical medical microbiology, clinical immunology, and mechanisms of disease; the host-parasite relationship and adaptive and maladaptive responses of the host. Etiology, pathogenesis, clinical signs and clinical nursing management of selected immunological, viral, bacterial, fungal, and parasitic diseases. Etiology, pathogenesis, clinical signs and clinical management of selected developmental, degenerative, nutritional, metabolic, endocrine, immune-mediated, and neoplastic diseases. Principles of vaccination, disease prevention, public health, client education, and zoonosis. Diagnostic techniques, including gross and microscopic identification of common veterinary pathogens. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 60  VETERINARY OFFICE PRACTICE  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 53A.
Advisory: Not open to students with credit in APAV 60.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Principles and practice of veterinary office management for veterinary technology students. Client relations, receptionist skills, telephone techniques, interpersonal skills, and personnel management. Generation and maintenance of correspondence, medical records, legal forms, and hospital logs. Basic bookkeeping, accounting, and financial management principles. Marketing and public relations. Professional ethics and professionalism. Use of computers for data entry, patient record management and inventory control. Use of practice management software. State and federal laws as they apply to the veterinary practice. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 70  FUNDAMENTALS OF VETERINARY DIAGNOSTIC IMAGING  4 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 54B.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
Introduction to the principles of veterinary radiography and ultrasonography for veterinary technician students, including radiographic and ultrasonographic terminology. Physics of X-ray and ultrasound production and interaction with matter. Explanation of MRI, CT, and nuclear medicine appropriate to the veterinary technician. Occupational safety and radiation protection. Proper use and maintenance of standard and digital x-ray equipment. Radiographic exposure factors, technique chart development and usage, and patient positioning required for production of diagnostic radiographs. Processing of radiographic film. Discussion of equipment, materials and special radiographic studies common in veterinary practice. Radiographic exposure troubleshooting and common artifacts. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 58L  SURGICAL ASSISTING FOR THE VETERINARY NURSE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 57L.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Practical application of animal care skills and principles of animal care and management. Opportunity to participate in the health care team involved in the care, management and husbandry of program livestock, companion animals and laboratory animals. Students will also be given an introduction to anesthetic equipment, principles of aseptic technique, sanitation, disinfection and sterilization, introduction to principles of surgical nursing, basic operating room skills and instrumentation. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 66  EXOTIC ANIMAL CARE  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 54B.
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T or equivalent.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Basic understanding of the care, husbandry, clinical procedures, and medical concerns of rabbits, ferrets, guinea pigs, chinchillas, small rodents, birds, snakes, lizards, turtles. Emphasis on clinically relevant materials and activities. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 57L  ADVANCED SMALL ANIMAL PRACTICE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 56.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Practical application of animal care skills and principles of animal care and management for acute and chronic conditions of small animals. Emphasis on nursing care and diagnostic nursing and parasitic diseases. Etiology, pathogenesis, clinical signs and clinical management of selected developmental, degenerative, nutritional, metabolic, endocrine, immune-mediated, and neoplastic diseases. Principles of vaccination, disease prevention, public health, client education, and zoonosis. Diagnostic techniques, including gross and microscopic identification of common veterinary pathogens. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 60  VETERINARY OFFICE PRACTICE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 53A.
Advisory: Not open to students with credit in APAV 60.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Principles and practice of veterinary office management for veterinary technology students. Client relations, receptionist skills, telephone techniques, interpersonal skills, and personnel management. Generation and maintenance of correspondence, medical records, legal forms, and hospital logs. Basic bookkeeping, accounting, and financial management principles. Marketing and public relations. Professional ethics and professionalism. Use of computers for data entry, patient record management and inventory control. Use of practice management software. State and federal laws as they apply to the veterinary practice. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 58L  SURGICAL ASSISTING FOR THE VETERINARY NURSE  1 Unit
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 57L.
Grade Type: Letter Grade Only
Not Repeatable.
3 hours laboratory. (36 hours total per quarter.)
Practical application of animal care skills and principles of animal care and management. Opportunity to participate in the health care team involved in the care, management and husbandry of program livestock, companion animals and laboratory animals. Students will also be given an introduction to anesthetic equipment, principles of aseptic technique, sanitation, disinfection and sterilization, introduction to principles of surgical nursing, basic operating room skills and instrumentation. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 66  EXOTIC ANIMAL CARE  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 54B.
Advisory: One of the following: ENGL 1A, 1AH, or 1S & 1T or equivalent.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Basic understanding of the care, husbandry, clinical procedures, and medical concerns of rabbits, ferrets, guinea pigs, chinchillas, small rodents, birds, snakes, lizards, turtles. Emphasis on clinically relevant materials and activities. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU

V T 60  VETERINARY OFFICE PRACTICE  2 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 53A.
Advisory: Not open to students with credit in APAV 60.
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Principles and practice of veterinary office management for veterinary technology students. Client relations, receptionist skills, telephone techniques, interpersonal skills, and personnel management. Generation and maintenance of correspondence, medical records, legal forms, and hospital logs. Basic bookkeeping, accounting, and financial management principles. Marketing and public relations. Professional ethics and professionalism. Use of computers for data entry, patient record management and inventory control. Use of practice management software. State and federal laws as they apply to the veterinary practice. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

FHGE: Non-GE Applicable  Transferable: CSU
V T 70R  INDEPENDENT STUDY IN VETERINARY TECHNOLOGY  1 Unit

V T 71R  2 Units
V T 72R  3 Units
V T 73R  4 Units

Degree & Credit Status: Degree-applicable credit course
Advisory: Student should have completed at least one quarter of the Veterinary Technology program, or V T 52A and 52B online, and have the permission of the faculty instructor.
Grade Type: Letter Grade Only
Not Repeatable.

3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in Veterinary Assisting or Veterinary Technology beyond the classroom by working in a clinical setting to achieve specific goals agreed upon by the student, Foothill faculty, and internship supervisor. The student is required to contract with the Foothill faculty to determine the scope of assignment. This course offers the student credit for 3 hours of work in a veterinary practice setting, under supervision of a veterinarian or RVT. Students may take a maximum of 6 units of Independent Study per department.
FHGE: Non-GE Applicable  Transferable: CSU

V T 72  PRINCIPLES OF VETERINARY DENTISTRY  2.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 70.
Grade Type: Letter Grade Only
Not Repeatable.

2 hours lecture, 2 hours laboratory. (48 hours total per quarter.)
Basic principles of veterinary dentistry for the veterinary technology student. Includes dental anatomy, physiology, pathophysiology, charting and instrumentation. Techniques of routine dental prophylaxis and aspects of anesthesia specific to dental patients. Discussion of periodontal disease, modes of therapy, client education and preventive care. Introduction to common dental disorders, simple extractions, and dental radiography. Course includes hands-on laboratory sessions using veterinary dental equipment, models, and live animal patients. Care and use of common instruments and equipment. Comparative dentistry: dental formulas and clinical applications of dental disease in a variety of domestic and wild animals. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 75A  ANIMAL CARE SKILLS I  2 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 51.
Advisory: Not open to students with credit in APAV 75A.
Grade Type: Letter Grade Only
Not Repeatable.

2 hours lecture. (24 hours total per quarter.)
Practical application of animal care skills and principles of animal care and management. Opportunity to participate in the health care team involved in the care, management and husbandry of program animals. Emphasis will be on the basic principles and application of clinical facility management, care of resident teaching animals, and routine maintenance duties. Topics critical to success will be discussed in lecture: dog and cat behavior, low stress handling, medical records and professionalism. Discussion of euthanasia. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 75B  ANIMAL CARE SKILLS II  2 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 75A.
Advisory: Not open to students with credit in APAV 75B (completed prior to the 2020-21 catalog year).
Grade Type: Letter Grade Only
Not Repeatable.

2 hours lecture. (24 hours total per quarter.)
Second in a series of animal care skills topics. Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology courses. Students apply knowledge of medical terminology, anatomy and physiology to animal care duties. Students will create nutrition and preventive health care plans for program animals and learn how to assess pain in domestic animals. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 75C  LARGE ANIMAL SKILLS LABORATORY  1 Unit

Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 75B.
Grade Type: Letter Grade Only
Not Repeatable.

3 hours laboratory. (36 hours total per quarter.)
Third in a series of courses on animal care and handling. Focus on large animal species evaluation and nursing care. Physical examination, common procedures, and specialized equipment. Restraint, behavior, and handling of large domestic animals. Opportunity to perform skills on live animals during field trips and on campus. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 81  CLINICAL PATHOLOGY METHODS  5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: BIOL 41.
Grade Type: Letter Grade Only
Not Repeatable.

4 hours lecture, 3 hours laboratory. (84 hours total per quarter.)
Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Areas of study include hematology, urinalysis, coagulation assessment, blood biochemistry and immunological testing, serology, clinical parasitology, and cytology. The veterinary technician’s role in sample collection, sample storage and handling, and performance of analytic procedures will be emphasized. Skills are developed in the use of laboratory equipment, laboratory safety and management, and quality control and quality assurance. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU

V T 83  PHARMACOLOGY FOR VETERINARY NURSES  4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 54B.
Grade Type: Letter Grade Only
Not Repeatable.

4 hours lecture. (48 hours total per quarter.)
Introduction to the basic principles of veterinary pharmacology. Preparation and dispensing of medications. Overview of the actions and interactions of the major classes of drugs, with emphasis on common veterinary uses of specific drugs. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable  Transferable: CSU
V T 84 ANESTHESIOLOGY FOR TECHNICIANS 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 83; students may also satisfy the prerequisite with at least three years of experience in a veterinary clinic or laboratory animal setting, and/or a RVT or LAT or higher.
Grade Type: Letter Grade Only
Not Repeatable.

4 hours lecture. (48 hours total per quarter.)
Principles and practice of veterinary anesthesia for the veterinary technician. Anatomy and physiology of the respiratory, cardiovascular, and nervous systems relevant to anesthesia. Pharmacology, indications, contraindications, and adverse effects of common pre-anesthetic and anesthetic agents. The veterinary technician's role in patient assessment, preparation, induction, monitoring, maintenance, and recovery of anesthesia. Sedation, analgesia, general anesthesia, and local anesthesia techniques will be discussed. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program, or by special permission of the instructor.
FHGE: Non-GE Applicable Transferable: CSU

V T 84L VETERINARY ANESTHESIA 2 Units LABORATORY

Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 58L; discussion and demonstration of ability to set up an anesthesia machine.
Corequisite: Completion of or concurrent enrollment in V T 84.
Grade Type: Letter Grade Only
Not Repeatable.

6 hours laboratory. (72 hours total per quarter.)
The veterinary technician's role in patient assessment, preparation, induction, monitoring, maintenance, and recovery of anesthesia. Sedation, analgesia, general anesthesia, and local anesthesia techniques will be practiced and/or demonstrated. Practical applications of pharmacology, including indications, contraindications and effects of common pre-anesthetic and anesthetic agents. Skills pertaining to anesthesia will be practiced. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

V T 85 VETERINARY EMERGENCY & CRITICAL CARE 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 83.
Grade Type: Letter Grade Only
Not Repeatable.

3 hours lecture, 3 hours laboratory. (72 hours total per quarter.)
FHGE: Non-GE Applicable Transferable: CSU

V T 86 LABORATORY ANIMAL NURSING 4 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 55.
Grade Type: Letter Grade Only
Not Repeatable.

4 hours lecture. (48 hours total per quarter.)
Study of the husbandry, management, and nursing care of rabbits and rodents kept as both research and companion animals. Orientation to the humane and ethical use of animals in research. Discussion of the veterinary technician as an animal advocate and nurse in a biomedical research animal facility. Regulations affecting the use of animals in research are discussed. Proper methods of restraint and handling; husbandry and housing; feeding and nutrition; medical and surgical nursing techniques for the common species of laboratory animals. Introduction to diagnostic and therapeutic techniques and common diseases of laboratory animals. Appropriate anesthesia, analgesia and euthanasia methods will be discussed. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

V T 88A CLINICAL PRECEPTORSHIP I 2.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisites: V T 52A and 52B.
Grade Type: Letter Grade Only
Not Repeatable.

7.5 hours clinic. (90 hours total per quarter.)
Formal, structured off-campus clinical experience in licensed veterinary facilities, which serve as a means of instructing the student in practical, hands-on, clinical skills in all aspects of veterinary assisting as specified by the Association of Veterinary Technician Educators. The student is under the direct supervision of one or more licensed veterinarians and/or credentialed veterinary technicians. The site of the preceptorship is approved by the Veterinary Technology Program, in consultation with the student and/or a RVT or LAT or higher.

FHGE: Non-GE Applicable Transferable: CSU

V T 88A CLINICAL PRECEPTORSHIP 1 2.5 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisites: V T 52A and 52B.
Grade Type: Letter Grade Only
Not Repeatable.

7.5 hours clinic. (90 hours total per quarter.)
Formal, structured off-campus clinical experience in licensed veterinary facilities, which serve as a means of instructing the student in practical, hands-on, clinical skills in all aspects of veterinary assisting as specified by the Association of Veterinary Technician Educators. The student is under the direct supervision of one or more licensed veterinarians and/or credentialed veterinary technicians. The site of the preceptorship is approved by the Veterinary Technology Program, in consultation with the student and/or a RVT or LAT or higher.

FHGE: Non-GE Applicable Transferable: CSU

V T 89 CLINICAL INTERNSHIP I 3 Units

Degree & Credit Status: Degree-applicable credit course
Prerequisites: V T 55 and 56.
Grade Type: Letter Grade Only
Not Repeatable.

10 hours clinic. (120 hours total per quarter.)
Off-campus practical clinical work experience in veterinary facilities supervised by licensed veterinarians and registered veterinary technicians. Integration into a veterinary health care team and exposure to varied methodologies and practice philosophies in a variety of clinical settings. Opportunity for learning and practical application of the knowledge, skills and attitudes required of a veterinary assistant. Exposure to varied clinical settings. Emphasis is on the role of the veterinary assistant in the veterinary health care team.

FHGE: Non-GE Applicable Transferable: CSU
V T 91          CLINICAL INTERNSHIP II 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 89.
Grade Type: Letter Grade Only
Not Repeatable.
10 hours clinic. (120 hours total per quarter.)
Off-campus practical clinical work experience in veterinary facilities supervised by licensed veterinarians and veterinary technicians. Students begin to follow directions from doctors and staff with increasing independence and exhibit good judgment and critical thinking skills. Second quarter interns are typically enrolled in pharmacology, animal diseases and diagnostic imaging. The student must start to integrate and apply the knowledge and skills from these areas of learning into their practice at the internship site. This course documents the 115 hours of practical work experience in a veterinary medical clinical setting required for the students. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

V T 92          CLINICAL INTERNSHIP III 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 91.
Grade Type: Letter Grade Only
Not Repeatable.
10 hours clinic. (120 hours total per quarter.)
Off-campus practical clinical work experience in veterinary facilities supervised by licensed veterinarians and registered veterinary technicians. Students must assume more responsibility, act independently with more confidence and proficiency, apply principles of critical thinking to clinical practice and troubleshoot with confidence and good judgment. Practical application of knowledge, skills, and attitudes acquired in the concurrent second year program course work. The student assumes more responsibility for radiology and clinical pathology, medical nursing and common clinical procedures. Emphasis on developing competencies around dentistry, emergency medicine, and nursing assessments. This course meets the 115 hours of practical work experience in a veterinary medical clinical setting required for the students. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

V T 93          CLINICAL INTERNSHIP IV 3 Units
Degree & Credit Status: Degree-applicable credit course
Prerequisite: V T 92.
Grade Type: Letter Grade Only
Not Repeatable.
10 hours clinic. (120 hours total per quarter.)
Off-campus practical clinical work experience in veterinary facilities supervised by licensed veterinarians and registered veterinary technicians. High-level practical application of knowledge, skills, and abilities acquired in the concurrent second year program course work. In addition to competently performing all essential clinical skills and duties delegated to the veterinary technician, the student will begin to take responsibility for client education, development of patient care plans, providing nursing care to critical care and emergency patients, performing advanced sampling techniques, conducting special diagnostic studies and performing more complex therapeutics. This course meets the 115 hours of practical work experience in a veterinary medical clinical setting required for the students. Intended for students in the last quarter of the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

V T 95          VETERINARY TECHNICIAN PROFICIENCY 2 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade Only
Not Repeatable.
2 hours lecture. (24 hours total per quarter.)
Review of AVMA domains in preparation for the Veterinary Technician National Examination. Guided review and discussion of exam application process. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.
FHGE: Non-GE Applicable Transferable: CSU

WMN 5           INTRODUCTION TO WOMEN'S STUDIES 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Examination and development of the goals, major documents, history, achievements, and evolution of the current women’s movement in light of the impact and contributions of women, in comparison to those of men, of various cultural and ethnic heritage. Includes appraisal of the effects of multiculturalism and the women’s movement on politics, jobs, education, science, family structure, and the arts.
FHGE: American Cultures & Communities, Social & Behavioral Sciences Transferable: CSU/UC

WMN 11          WOMEN IN GLOBAL PERSPECTIVE 4 Units
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple measures OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Examination and analysis of the historical roles of women globally and the impact and influence of these historical developments on modern society internationally and domestically.
FHGE: Non-GE Applicable Transferable: CSU/UC
WMN 21           PSYCHOLOGY OF WOMEN: SEX & GENDER DIFFERENCES  
Degree & Credit Status: Degree-applicable credit course
Advisory: Demonstrated proficiency in English by placement via multiple 
measures OR through an equivalent placement process OR completion of 
ESLL 125 & ESLL 249; not open to students with credit in PSYC 21 or SOC 21.
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
4 hours lecture. (48 hours total per quarter.)
Survey of gender issues based upon psychological and sociological theories 
and research. Examination of sex differences and sex role stereotyping in a 
global, multi-cultural approach. Appraisal of effects of biology, culture, and 
society in creating sex and gender differences. Consideration of major the- 
ories of gender development. Focus on biology, socialization, mass media, 
communication, personality, abilities, work, family, sex, and violence.
FHGE: Social & Behavioral Sciences  Transferable: CSU/UC

WMN 70R           INDEPENDENT STUDY IN WOMEN’S STUDIES  
WMN 71R           2 Units
WMN 72R           3 Units
WMN 73R           4 Units
Degree & Credit Status: Degree-applicable credit course
Grade Type: Letter Grade or Pass/No Pass
Not Repeatable.
3-12 hours laboratory per week. (36-144 hours total per quarter.)
Provides an opportunity for the student to expand their studies in the Wom- 
en’s Studies discipline beyond the classroom by completing a project or an 
assignment arranged by agreement between the student and instructor. 
The student is required to contract with the instructor to determine the 
scope of assignment and the unit value assigned for successful comple- 
tion. Students may take a maximum of 6 units of Independent Study per 
department.
FHGE: Non-GE Applicable  Transferable: CSU