BS FOOD SCIENCE

Program Learning Objectives
1. Graduates demonstrate critical thinking skills in addressing food science issues.
2. Graduates demonstrate the knowledge, ethics, and technical skills needed to succeed in food science fields and post-graduate studies.
3. Graduates demonstrate effective written and oral communication skills.
4. Graduates demonstrate the ability to work effectively as part of a problem-solving team.
5. Graduates demonstrate cultural competence with interacting diverse populations.

Program Educational Outcomes
• Food Science program graduates can integrate and apply principles of food chemistry, analysis, microbiology, processing and engineering to assure food quality and safety.

Degree Requirements and Curriculum
In addition to the program requirements listed on this page, students must also satisfy requirements outlined in more detail in the Minimum Requirements for Graduation (http://catalog.calpoly.edu/generalrequirementsbachelorsdegree/#generaleducationtext) section of this catalog, including:
• 60 units of upper division courses
• Graduation Writing Requirement (GWR)
• 2.0 GPA
• U.S. Cultural Pluralism (USCP)

Note: No major, support or concentration courses may be selected as credit/no credit.

MAJOR COURSES
FSN 101  Orientation to the Food Science and Nutrition Majors  1
FSN 125  Introduction to Food Science  4
FSN 204  Food Processing Operations  4
FSN 210  Nutrition  4
FSN 250  Food and Nutrition: Customs and Culture (USCP) (D4)  1  4
FSN 311  Sensory Evaluation of Food  4
FSN 330  Introduction to Principles of Food Engineering  4
FSN 334  Food Packaging  3
FSN 335  Food Quality Assurance  4
FSN 364  Food Chemistry  4
FSN 368  Food Analysis  4
FSN 370  Food Plant Sanitation and Prerequisite Programs  4
FSN 374  Food Laws and Regulations  4
FSN 375  Food Safety  4
FSN 408  Food Product Development  4
FSN 461  Senior Project I  3
FSN 462  Senior Project II  3
Concentration courses (see below)  19-20

SUPPORT COURSES
AGB 214 or BUS 212  Agribusiness Financial Accounting  4
BIO 111  General Biology (B2 & B4)  1  4
CHEM 127 & CHEM 128  General Chemistry for Agriculture and Life Science I and General Chemistry for Agriculture and Life Science II (B3 & B4)  1  8
CHEM 312  Survey of Organic Chemistry  5
CHEM 313  Survey of Biochemistry and Biotechnology
MATH 118  Precalculus Algebra (B1)  1  4
MCRO 221  Microbiology  4
MCRO 421  Food Microbiology  4
PHYS 121  College Physics I  4
STAT 218  Applied Statistics for the Life Sciences (B1)  1  4

GENERAL EDUCATION (GE)
(See GE program requirements below.)  52

FREE ELECTIVES
Free Electives  0-1
Total units  180

1 Required in Major or Support; also satisfies GE.

Concentrations
• Advanced Food Science (http://catalog.calpoly.edu/collegesandprograms/collegeofagriculturefoodenvironmentalsciences/foodsciencenutrition/bsfoodscience/advancedfoodscienceconcentration)
• Applied Food Technology (http://catalog.calpoly.edu/collegesandprograms/collegeofagriculturefoodenvironmentalsciences/foodsciencenutrition/bsfoodscience/appliedfoodtechnologyconcentration)
• Culinary (http://catalog.calpoly.edu/collegesandprograms/collegeofagriculturefoodenvironmentalsciences/foodsciencenutrition/bsfoodscience/culinaryconcentration)

General Education (GE) Requirements
• 72 units required, 20 of which are specified in Major and/or Support.
• See the complete GE course listing (http://catalog.calpoly.edu/generalrequirementsbachelorsdegree/#generaleducationtext).
• Minimum of 12 units required at the 300 level.

Area A  Communication
A1 Expository Writing  4
A2 Oral Communication  4
A3 Reasoning, Argumentation and Writing  4

Area B  Science and Mathematics (no additional units required)
### BS Food Science

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Mathematics/Statistics (8 units in Support)</td>
<td>8</td>
</tr>
<tr>
<td>B2</td>
<td>Life Science (4 units in Support)</td>
<td>4</td>
</tr>
<tr>
<td>B3</td>
<td>Physical Science (4 units in Support)</td>
<td>4</td>
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<tr>
<td>B4</td>
<td>One lab taken with either a B2 or B3 course</td>
<td>0</td>
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#### Area C | Arts and Humanities

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>C1 Literature</td>
<td>4</td>
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<tr>
<td>C2 Philosophy</td>
<td>4</td>
</tr>
<tr>
<td>C3 Fine/Performing Arts</td>
<td>4</td>
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<tr>
<td>C4 Upper-division elective</td>
<td>4</td>
</tr>
<tr>
<td>Area C elective</td>
<td>(Choose one course from C1-C5)</td>
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</tbody>
</table>

#### Area D/E | Society and the Individual

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>D1 The American Experience</td>
<td>4</td>
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<tr>
<td>D2 Political Economy</td>
<td>4</td>
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<tr>
<td>D3 Comparative Social Institutions</td>
<td>4</td>
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<tr>
<td>D4 Self Development (CSU Area E)</td>
<td>4</td>
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<tr>
<td>D5 Upper-division elective</td>
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</table>

#### Area F | Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>F Upper-division elective</td>
<td>4</td>
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</table>

Total units: 52

1 Required in Major or Support; also satisfies GE.