Name: 
Plan: 
Sub-Plan/Option: 
Min. Units Required: 120 units

**Food Science and Technology, B.S.**

**Major Required Core** 80-81 units

Core courses include food chemistry, food analysis, microbiology, unit operations in food processing, food engineering, and food laws and regulations.

- AG1010 - Agriculture & The Modern World (3) (D3)
- AG4010 - Ethical Issues in Food, Agricultural and Apparel Industries (1) (B3)
- BIO1150 - Basic Biology (5) (B2) and
- BIO1210L - Basic Biology Laboratory (1) (B3)
- BIO2060 - Basic Microbiology (3)
- BIO2060L - Basic Microbiology Laboratory (1)
- BIO3640 - Food Microbiology (2)
- BIO3640L - Food Microbiology Laboratory (1)
- CHM1210 - General Chemistry I (3) (B1)
- CHM1210L - General Chemistry Laboratory I (1) (B3)
- CHM1220 - General Chemistry II (3) (B1)
- CHM1220L - General Chemistry Laboratory II (1) (B3)
- CHM2010 - Elements of Organic Chemistry (3) and
- CHM2010L - Elements of Organic Chemistry Laboratory (1)
- ENGL103 - First Year Composition (3) (A2)
- ENGL205 - Written Reasoning (3) (A3)
- FST1000 - Orientation and Careers in Food Science and Technology (1)
- FST1250 - Introduction to Food Science and Technology (3)
- FST3220 - Food Laws and Regulations (3)
- FST3250 - Food Safety and Current Issues (3) (B5)
- FST3321 - Food Process Engineering (3)
- FST3321L - Food Process Engineering Laboratory (1)
- FST3900 - Food Science Colloquium (1)
- FST4170 - Unit Operations in Food Processing (2)
- FST4281 - Food Chemistry Laboratory (1)
- FST4282 - Food Analysis (3)
- FST4282L - Food Analysis Laboratory (1)
- FST4300 - Principles of Hazard Analysis and Critical Control Point System (2)
- FST4300A - Principles of Hazard Analysis and Critical Control Point System Activity (1)
- FST4419 - Internship in Food Science and Technology I-4 (1 unit required)
- NTR2280 - Food and Culture (3) (D3)
- NTR2305 - Nutrition, Science and Health (3) (B5)
- PHY1210 - Physics of Motion, Fluids, and Heat (3) (B1)
- PHY1210L - Physics of Motion, Fluids, and Heat Laboratory (1) (B3)
- STA1300 - Biostatistics (3) (B4)

**Culinology® Emphasis** 16 units

- FST3180 - Sensory Evaluation of Foods (2)
- FST3180L - Sensory Evaluation of Foods Laboratory (1)
- FST4290 - Food Product Development Laboratory (2)
- FST4290L - Food Product Development Laboratory (2)

**Science and Technology Emphasis** 16 units

- CHM3120 - Elements of Biochemistry (3)
- CHM3270 - Biochemistry Laboratory I (1)
- CHM3180 - Sensory Evaluation of Foods Laboratory (1)
- CHM3190 - Food Packaging Activity (1)
- FST3190 - Food Packaging Activity (1)
- FST4271L - Unit Operations in Food Processing (2)
- FST4390 - Food Product Development Laboratory (2)

**Pre-Professional Emphasis** 15 units

- BIO1220 - Foundations of Biology: Evolution, Ecology, and Biodiversity (3)
- BIO1230 - Foundations of Biology: Evolution, Ecology, and Biodiversity Laboratory (1)
- CHM3150 - Organic Chemistry II (3)
- CHM3150L - Organic Chemistry Laboratory II (1)
- CHM3120 - Elements of Biochemistry (3)
- PHY1220 - Physics of Electromagnetism, Circuits, and Light (3)
- PHY1220L - Electromagnetism, Circuits, and Light Laboratory (1)

**Business Emphasis** 16 units

- FST3180 - Sensory Evaluation of Foods (2)
- FST3180L - Sensory Evaluation of Foods Laboratory (1)
- FST4290 - Food Product Development (1)
- FST4290L - Food Product Development Laboratory (2)

**General Education Requirements** 48 units

**Area A. English Language Communication and Critical Thinking (9 units)**
1. Oral Communication
2. Written Communication
3. Critical Thinking

**Area B. Scientific Inquiry and Quantitative Reasoning (12 units)**
1. Physical Sciences
2. Life Sciences
3. Laboratory Activity
4. Mathematics/Quantitative Reasoning
5. Science and Technology Synthesis

**Area C. Arts and Humanities (12 units)**
1. Visual and Performing Arts
2a. Philosophy and Civilization
2b. Literature and Language Other than English
3. Arts and Humanities Synthesis

**Area D. Social Sciences (12 units)**
1. U.S. History and American Ideals
2. U.S. Constitution and California Government
4. Social Science Synthesis

**Area E. Lifelong Learning and Self-Development (3 units)**

**Interdisciplinary General Education** 21 units

An alternate pattern for partial fulfillment of GE Areas A, C, and D available for students is the Interdisciplinary General Education (IGE) program. Students should see an advisor for specific GE coursework required by their major. Please refer to the University Catalog General Education Program section for additional information.

**How IGE fulfills General Education Requirements:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Completion of IGE Courses</th>
<th>Satisfies GE Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>IGE 1100, IGE 1200</td>
<td>A2 and C2b</td>
</tr>
<tr>
<td>Sophomore</td>
<td>IGE 2100, IGE 2200</td>
<td>C1 and C2a</td>
</tr>
<tr>
<td>Junior</td>
<td>IGE 2300, IGE 2400</td>
<td>D1 and D3</td>
</tr>
<tr>
<td>Senior</td>
<td>IGE 3100</td>
<td>C3 or D4</td>
</tr>
</tbody>
</table>

**American Institutions** 6 units

Courses that satisfy this requirement may also satisfy GE Area D1 and D2.

**American Cultural Perspectives Requirement** 3 units

Refer to the University Catalog General Education Program section for a list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.

**Graduation Writing Test**

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the semester following completion of 60 units for undergraduates.