FOOD SCIENCE AND TECHNOLOGY (CULINARY SCIENCE) - BACHELOR OF SCIENCE IN FOOD SCIENCE AND TECHNOLOGY

Food science is the science of food. Food scientists study the physical, microbiological, and chemical makeup of food. Food technology is the application of food science to the selection, preservation, processing, packaging, distribution, and use of safe food. The food industry is the largest manufacturing industry in the United States. This multidisciplinary field applies scientific disciplines including chemistry, microbiology, nutrition and engineering to develop new food products as well as the processes designed to improve food safety and the quality of foods. Food scientists develop new foods, add value to raw food commodities and improve the quality and safety of foods. There are three concentration areas offered to allow students to focus on a specific area of interest:

1. Science, Engineering and Technology
2. Culinary Science
3. Meat Science

Consider exploring food science through our introductory course: Food Science I (FSTE 263G) which fulfills the general education Area III Laboratory Science requirement. Food scientists typically work in the food and beverage industry in the areas of quality assurance, product development, product procurement, research, sensory evaluation, sales, and food safety regulations. Graduates of the program will also be prepared for postgraduate studies leading to research, production and management careers in the food and feed industries, government and academia.

A minimum grade of C- is required in all classes with CHEM, BCHE, BIOL, FSTE, or NUTR prefix.

Requirements

Students must complete all University degree requirements, which include: General Education requirements, Viewing a Wider World requirements, and elective credits to total at least 120 credits with 48 credits in courses numbered 300 or above. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

<table>
<thead>
<tr>
<th>Prefix</th>
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<th>Credits</th>
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<td>General Education</td>
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<tr>
<td>Area I: Communications</td>
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<tr>
<td>English Composition - Level 1 ¹</td>
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<td>English Composition - Level 2</td>
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<td>Area II: Mathematics</td>
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<td>Area III/IV: Laboratory Sciences and Social/Behavioral Sciences</td>
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<td>Area V: Humanities ¹</td>
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<td>Area VI: Creative and Fine Arts ²</td>
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<td>Viewing A Wider World ³</td>
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<td>ANTH 360V</td>
<td>Food and Culture Around the World</td>
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<td>Food Microbiology</td>
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<td>FSTE 325</td>
<td>Food Analysis</td>
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<td>FSTE 328</td>
<td>Introduction to Food Engineering</td>
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<td>Food Preservation</td>
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<td>Food Chemistry</td>
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<td>FSTE 423</td>
<td>Food Processing Technologies</td>
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<td>Quantity Food Production and Service</td>
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<td>HRTM 413</td>
<td>Restaurant Operations Management</td>
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<td>HRTM 414</td>
<td>Wine Appreciation</td>
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<td>Non-Departmental Requirements</td>
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<td>BCHE 341</td>
<td>Survey of Biochemistry</td>
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<td>BIOL 311 &amp; 311 L</td>
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<td>Electives, to bring the total credits to 120 ⁴</td>
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</table>

¹ See the General Education Section of the catalog for a full list of courses.
² MATH 1430G Applications of Calculus I is required for the degree but students may need to take any prerequisites needed to enter MATH 1430G first.
³ See the Viewing a Wider World Section of the catalog for a full list of courses.
Elective credit may vary based on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

**A Suggested Plan of Study for Students**

This roadmap assumes student placement in MATH 1430G Intermediate Algebra and ENGL 1110G Rhetoric and Composition. The contents and order of this roadmap may vary depending on initial student placement in Mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td><strong>Fall</strong></td>
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<td>Technology and Communication for Business Management</td>
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<td>BCIS 1110</td>
<td>Introduction to Information Systems</td>
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<td>CHEM 2115</td>
<td>Survey of Organic Chemistry and Laboratory</td>
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<td>MATH 1430G</td>
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<tr>
<td>Elective Course</td>
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<td>FSTE 2130G</td>
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<td>Elective Course</td>
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| **Third Year** | |  |
| **Fall** | |  |
| Choose one from the following: | 3 |
| A ST 311 | Statistical Applications | |
| MATH 1350G | Introduction to Statistics | |
| BIOL 311 | General Microbiology & 311 L and General Microbiology Laboratory | 5 |
| FSTE 320 | Food Microbiology | 4 |
| FSTE 328 | Introduction to Food Engineering | 3 |
| HRTM 307 | Professional Development | 1 |
| **Spring** | |  |
| FSTE 325 | Food Analysis | 3 |
| FSTE 421 | Food Chemistry | 3 |
| FSTE 423 | Food Processing Technologies | 4 |
| BCHE 341 | Survey of Biochemistry | 4 |
| Elective Course | 4 | 1 |

| **Fourth Year** | |  |
| **Fall** | |  |
| ANTH 360V | Food and Culture Around the World | 3 |
| HRTM 363 | Quantity Food Production and Service | 4 |
| HRTM 414 | Wine Appreciation | 3 |
| FSTE 425 | Sensory Evaluation of Foods | 3 |
| Elective Course | 4 | 3 |

| **Spring** | |  |
| FSTE 331 | Food Preservation | 3 |
| FSTE 429 | Product Development | 3 |
| HRTM 413 | Restaurant Operations Management | 4 |
| HRTM 408 | Hospitality Internship | 1 |
| Viewing the Wider World | 5 | 3 |
| Elective Course | 4 | 1 |

| **Total Credits** | | 120 |

1. See the General Education Section of the catalog for a full list of courses.
2. Students must take one Area V: Humanities and one Area VI: Creative and Fine Arts course in order to complete the General Education requirements.
3. MATH 1430G Applications of Calculus I is required for the degree but students may need to take any prerequisites needed to enter MATH 1430G first.
4. Elective credit may vary based on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.
5. See the Viewing a Wider World Section of the catalog for a full list of courses.