

FOOD SCIENCE AND TECHNOLOGY MAJOR WITH FOOD AND HEALTH OPTION

Program Curriculum

Code	Title	Credits
Degree Core Requirements		
ALS 1234	CALS First Year Seminar	1
BCHM 2024	Concepts of Biochemistry	3
BIOL 1105	Principles of Biology	3
BIOL 1106	Principles of Biology	3
BIOL 2604	General Microbiology	3
BIOL 2614	General Microbiology Laboratory	2
FST 2004	Exploring Food Science Careers	1
FST 2014	Introduction to Food Science	2
FST 3514	Food Analysis	4
FST/BIOL 3604	Food Microbiology	4
FST 3900	Bridge Experience	0
FST 4004	Food Science Experiential Learning Reflection	1
FST 4014	Concepts of Food Product Development	3
FST 4304	Food Processing	3
FST 4314	Food Processing Laboratory	1
FST 4504	Food Chemistry	3
FST 4534	Food Chemistry Lab	1
FST 4524	Food Safety and Quality Assurance	3
Subtotal		41
Option Required Courses		
HNFE 1004	Foods, Nutrition And Exercise	3
HNFE 2014	Nutrition Across the Life Span	3
PHYS 2205	General Physics	3
PHYS 2206	General Physics	3
CHEM 2535 & CHEM 2536 or CHEM 2514	Organic Chemistry and Organic Chemistry Survey of Organic Chemistry	3-6
Subtotal		15-18
Restricted Electives		
Select 8 credit hours of the following:		8
BMSP 2135	Human Anatomy & Physiology	
BMSP 2136	Human Anatomy and Physiology	
BMSP 2145	Human Anatomy and Physiology Laboratory	
BMSP 2146	Human Anatomy and Physiology Laboratory	
CHEM 2545	Organic Chemistry Laboratory	
CHEM 2546	Organic Chemistry Laboratory	
FST 2244	Topics in Food Science and Technology ¹	
FST/HNFE 2544	Functional Foods for Health	
FST 3024	Principles of Sensory Evaluation	
FST 4204	Advanced Topics in Food Science and Technology ¹	
FST 4634	Epidemiology Foodborne Disease	

FST 4974	Independent Study ¹	
FST 4994	Undergraduate Research ¹	
HNFE 4025	Macronutrient Metabolism	
HNFE 4026	Micronutrient Metabolism	
PHYS 2215	General Physics Laboratory	
PHYS 2216	General Physics Laboratory	
Study Abroad (As approved by FST department) ¹		
Free Electives		
Select remaining credits of free electives		9
Subtotal		17
Pathways to General Education		
<i>Pathways Concept 1 - Discourse</i>		
ENGL 1105	First-Year Writing (1F)	3
ENGL 1106	First-Year Writing (1F)	3
ENGL 3764	Technical Writing (1A)	3
<i>Pathways Concept 2 - Critical Thinking in the Humanities</i>		
Select six credits in Pathway 2 (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02)		6
<i>Pathways Concept 3 - Reasoning in the Social Sciences</i>		
Select six credits in Pathway 3 (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G03)		6
<i>Pathways Concept 4 - Reasoning in the Natural Sciences</i>		
CHEM 1035	General Chemistry	3
CHEM 1036	General Chemistry	3
CHEM 1045	General Chemistry Laboratory	1
CHEM 1046	General Chemistry Laboratory	1
<i>Pathways Concept 5 - Quantitative and Computational Thinking</i>		
MATH 1025	Elementary Calculus (5F)	3
MATH 1026	Elementary Calculus (5F)	3
STAT 3615	Biological Statistics (5A)	3
<i>Pathways Concept 6 - Critique and Practice in Design and the Arts</i>		
Select six credits in Pathway 6d (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06D) and Pathway 6a (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06A)		6
<i>Pathways Concept 7 - Critical Analysis of Identity and Equity in the United States ²</i>		
Select three credits in Pathway 7 (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G07)		3
Subtotal		47
Total Credits		120-123

¹ Credits vary depending on course, maximum of three credits allowed for each item.

² Pathways 7 may be completed with another Pathways requirement.

Eligibility for Continued Enrollment

- After having attempted 36 semester credits (including transfer, advanced placement, advanced standing, credit by examination, and freshman rule hours), students must have passed at least 12 semester credits of Curriculum for Liberal Education requirements.
- After having attempted 72 semester credits (including transfer, advanced placement, advanced standing, credit by examination, and freshman rule hours), students must:

- have passed at least 24 semester credits of Curriculum for Liberal Education requirements.
- have passed 9 semester credits in the Food and Beverage Fermentation Option requirements.

Graduation Requirements

This check sheet contains no hidden prerequisites. Please refer to the Undergraduate Course Catalog or consult your advisor for information about prerequisites.

- A minimum of 120 credit hours are required for graduation.
- A minimum 2.0 overall GPA is required for graduation.
- A minimum 2.0 in-major GPA is required for graduation (only FST courses will be used for in-major GPA calculation).

Foreign Language Requirement

A sequence of 2 foreign languages courses is required for graduation unless 2 high school credits of the same foreign language or 6 transfer credits of foreign language have been earned. These credits do not count toward graduation.

First Year		
Fall Semester		Credits
ALS 1234	CALS First Year Seminar	1
BIOL 1105	Principles of Biology	3
CHEM 1035	General Chemistry	3
CHEM 1045	General Chemistry Laboratory	1
ENGL 1105	First-Year Writing	3
MATH 1025	Elementary Calculus	3
Credits		14
Spring Semester		
BIOL 1106	Principles of Biology	3
CHEM 1036	General Chemistry	3
CHEM 1046	General Chemistry Laboratory	1
ENGL 1106	First-Year Writing	3
FST 2004	Exploring Food Science Careers	1
FST 2014	Introduction to Food Science	2
MATH 1026	Elementary Calculus	3
Credits		16
Second Year		
Fall Semester		
BIOL 2604	General Microbiology	3
BIOL 2614	General Microbiology Laboratory	2
CHEM 2535 or CHEM 2514	Organic Chemistry or Survey of Organic Chemistry	3
HNFE 1004	Foods, Nutrition And Exercise	3
Pathways Concept 2 - Critical Thinking in the Humanities		3
Credits		14
Spring Semester		
BCHM 2024	Concepts of Biochemistry	3
CHEM 2536	Organic Chemistry	3
OR Free Elective		
HNFE 2014	Nutrition Across the Life Span	3
Pathways Concept 2 - Critical Thinking in the Humanities		3
Pathways Concept 6 - Critique and Practice in Design and the Arts		3
Credits		15

Third Year

Fall Semester

FST 4504	Food Chemistry	3
FST 4534	Food Chemistry Lab	1
PHYS 2205	General Physics	3
STAT 3615	Biological Statistics	3
FST Food and Health Restricted Elective		3
Pathways Concept 3 - Reasoning in the Social Sciences		3
Credits		16

Spring Semester

FST 3514	Food Analysis	4
FST 3604	Food Microbiology	4
PHYS 2206	General Physics	3
Pathways Concept 6 - Critique and Practice in Design and the Arts		3
Free Electives		3
Credits		17

Summer Semester

FST 3900	Bridge Experience (taken any semester when the Bridge Experiential Learning requirement is being completed)	0
Credits		0

Fourth Year

Fall Semester

ENGL 3764	Technical Writing	3
FST 4004	Food Science Experiential Learning Reflection (taken the semester after the completion of the Bridge Experiential Learning requirement)	1
FST 4304	Food Processing	3
FST 4314	Food Processing Laboratory	1
FST Food and Health Restrictive Elective		3
Pathways Concept 3 - Reasoning in the Social Sciences		3
Credits		14

Spring Semester

FST 4014	Concepts of Food Product Development	3
FST 4524	Food Safety and Quality Assurance	3
FST Food and Health Restricted Elective		2
Pathways Concept 7 - Critical Analysis of Identity and Equity in the United States		3
Free Electives		3
Credits		14
Total Credits		120