

Food Science (H SCI)

Curriculum in Food Science

Administered by the Department of Food Science and Human Nutrition

Students select one of the following options and complete all requirements for that option: food science and technology option, food science and industry option, or consumer food science option. Courses listed below are required for all of the options, except where specified by option below.

Total Degree Requirement: 120 cr.

Students must fulfill International Perspectives and U.S. Diversity requirements by selecting coursework from approved lists. These courses may also be used to fulfill other area requirements. Only 65 cr. from a two-year institution may apply to the degree which may include up to 16 technical cr.; 9 P-NP cr. of electives; 2.00 minimum GPA.

International Perspectives: 3 cr.

U.S. Diversity: 3 cr.

Communications and Library: 13 cr.

ENGL 150	Critical Thinking and Communication	3
ENGL 250	Written, Oral, Visual, and Electronic Composition	3
LIB 160	Information Literacy	1
SP CM 212	Fundamentals of Public Speaking	3
TSM 115	Solving Technology Problems	3
Total Credits		13

Humanities and Social Sciences: 6-12 cr.

Select Humanities course from approved list		3
ECON 101	Principles of Microeconomics	3
If H Sci student, select:		6
Additional Humanities course		
Additional Humanities or Social Science course		

Ethics and Environmental: 3-6 cr.

FS HN 342	World Food Issues: Past and Present	3
If AgLS student, select from:		2-3
ENV S 120	Introduction to Renewable Resources	
ENV S 201	Introduction to Environmental Issues	

Mathematical Sciences: 7-12 cr.

Food science and technology option:

Select from:		8
MATH 165 & MATH 166	Calculus I and Calculus II	
or		
MATH 181 & MATH 182	Calculus and Mathematical Modeling for the Life Sciences I and Calculus and Mathematical Modeling for the Life Sciences II	
Select from:		3-4
STAT 101	Principles of Statistics	
STAT 104	Introduction to Statistics	
STAT 105	Introduction to Statistics for Engineers	
Total Credits		11-12

Food science and industry option, and consumer food science option:

Select from:		4
MATH 160	Survey of Calculus	
MATH 165	Calculus I	
MATH 181	Calculus and Mathematical Modeling for the Life Sciences I	
Select from:		3-4
STAT 101	Principles of Statistics	
STAT 104	Introduction to Statistics	

STAT 105	Introduction to Statistics for Engineers	
Total Credits		7-8

Physical Sciences: 13-25 cr.

Food science and technology option:

CHEM 177	General Chemistry I	4
CHEM 177L	Laboratory in General Chemistry I	1
CHEM 178	General Chemistry II	3
CHEM 331	Organic Chemistry I	3
CHEM 331L	Laboratory in Organic Chemistry I	1
CHEM 332	Organic Chemistry II	3
PHYS 111	General Physics	5
PHYS 112	General Physics	5
Total Credits		25

Food science and industry option, and consumer food science option:

Select from:		5-8
CHEM 163 & 163L	College Chemistry and Laboratory in College Chemistry	
CHEM 177 & 177L & CHEM 178	General Chemistry I and Laboratory in General Chemistry I and General Chemistry II	
CHEM 231	Elementary Organic Chemistry	3
CHEM 231L	Laboratory in Elementary Organic Chemistry	1
PHYS 106, 111, or 115		4-5
Total Credits		13-17

Biological Sciences: 12-13 cr.

Food science and technology option:

BBMB 301	Survey of Biochemistry	3
BIOL 211	Principles of Biology I	3
BIOL 212	Principles of Biology II	3
MICRO 302	Biology of Microorganisms	3
MICRO 302L	Microbiology Laboratory	1
Total Credits		13

Food science and industry option, and consumer food science option:

BBMB 301	Survey of Biochemistry	3
BIOL 211	Principles of Biology I	3
BIOL 212	Principles of Biology II	3
Select from:		2-3
MICRO 201	Introduction to Microbiology	
MICRO 302	Biology of Microorganisms	
Select from:		1
MICRO 201L	Introductory Microbiology Laboratory	
MICRO 302L	Microbiology Laboratory	
Total Credits		12-13

Food Science and Human Nutrition: 43-44 cr.

FS HN 101	Food and the Consumer	3
FS HN 110	Professional and Educational Preparation	1
FS HN 167	Introduction to Human Nutrition	3
FS HN 203	Contemporary Issues in Food Science and Human Nutrition	1
FS HN 311	Food Chemistry	3
FS HN 311L	Food Chemistry Laboratory	1
FS HN 351	Introduction to Food Engineering Concepts	3
FS HN 403	Food Laws, Regulations, and the Regulatory Process	2
FS HN 405	Food Quality Assurance	3
FS HN 406	Sensory Evaluation of Food	3
FS HN 410	Food Analysis	3

FS HN 411	Food Ingredient Interactions and Formulations	2
FS HN 412	Food Product Development	3
FS HN 420	Food Microbiology	3
FS HN 471	Food Processing I	3
FS HN 480	Professional Communication in Food Science and Human Nutrition	1

Food science and technology option, and food science and industry option:

FS HN 421	Food Microbiology Laboratory	3
FS HN 472	Food Processing II	3

Consumer food science option:

Select at least 5-6 cr from: 5-6

FS HN 214 & FS HN 215	Scientific Study of Food and Advanced Food Preparation Laboratory	
FS HN 265	Nutrition for Active and Healthy Lifestyles	
FS HN 421	Food Microbiology Laboratory	
FS HN 472	Food Processing II	

Electives: 3-19 cr. Select from any university coursework to earn at least 120 total credits.

Go to FS HN courses.