

FOOD SCIENCE, BS

for the degree of Bachelor of Science in Food Science

The Food Science major exposes students to all components of food production: harvesting and raw-product handling, food-processing procedures and techniques, packaging, and food storage. Students selecting this major are prepared for careers in many areas of the food industry.

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Graduation Requirements

Minimum hours required for graduation: 126 hours.

University Requirements

Minimum of 40 hours of upper-division coursework, generally at the 300 and 400 level. These hours can be drawn from all elements of the degree. Students should consult their academic advisor for additional guidance in fulfilling this requirement.

The university and residency requirements can be found in the Student Code (<https://studentcode.illinois.edu/article3/part8/3-801/>) (§ 3-801) and in the Academic Catalog (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

General Education Requirements

Follows the campus General Education (Gen Ed) requirements (<https://courses.illinois.edu/gened/DEFAULT/DEFAULT/>). Some Gen Ed requirements may be met by courses required and/or electives in the program.

Code	Title	Hours
	Composition I	4-6
	Advanced Composition	3
	Humanities & the Arts (6 hours)	6
	Natural Sciences & Technology (6 hours)	6
	fulfilled by CHEM 102, CHEM 104, MCB 100, PHYS 101, IB 100 or IB 105, and FSHN 101	
	Social & Behavioral Sciences (6 hours)	6
	fulfilled by LEAD 260 and one more course approved as Social & Behavioral Sciences	
	Cultural Studies: Non-Western Cultures (1 course)	3
	fulfilled by CPSC 116	
	Cultural Studies: US Minority Cultures (1 course)	3
	Cultural Studies: Western/Comparative Cultures (1 course)	3
	Quantitative Reasoning (2 courses, at least one course must be Quantitative Reasoning I)	6-8
	fulfilled by MATH 220 or MATH 221, PHYS 101, and ACE 262, CPSC 241, ECON 202, PSYC 235, or STAT 100	
	Language Requirement (Completion of the third semester or equivalent of a language other than English is required)	0-15

Code	Title	Hours
Department Foundation		
FSHN 123	FSHN Orientation to Illinois	1

Communication Option: 3 or 6

CMN 101	Public Speaking	
ALEC 115	Let's Talk about Food, Agriculture, and the Environment	
CMN 111 & CMN 112	Oral & Written Comm I and Oral & Written Comm II	
CPSC 116	The Global Food Production Web	3
MATH 220 or MATH 221	Calculus I	4-5
Statistics Option - Select one of the following:		3
ACE 262	Applied Statistical Methods and Data Analytics I	
CPSC 241	Intro to Applied Statistics	
ECON 202	Economic Statistics I	
PSYC 235	Intro to Statistics	
STAT 100	Statistics	
CHEM 102 & CHEM 103	General Chemistry I and General Chemistry Lab I	4
CHEM 104 & CHEM 105	General Chemistry II and General Chemistry Lab II	4
MCB 100	Introductory Microbiology	3
LEAD 260	Foundations of Leadership	3
CHEM 232	Elementary Organic Chemistry I	3 or 4
PHYS 101	College Physics: Mech & Heat	5
IB 100 or IB 105	Biology in Today's World	3

Major Core 53-54

FSHN 101	The Science of Food and How it Relates to You	3
FSHN 120 or FSHN 220	Contemporary Nutrition Principles of Nutrition	3-4
FSHN 201	Math for Food Science	3
FSHN 230	Food Sci Professional Issues	1
FSHN 232	Science of Food Preparation	3
FSHN 260	Raw Materials for Processing	2
FSHN 302	Sensory Evaluation of Foods	3
FSHN 414	Food Chemistry	3
FSHN 416	Food Chemistry Laboratory	3
FSHN 418	Food Analysis	4
FSHN 419	Food Ingredient Technology	3
FSHN 460	Food Processing Engineering	3
FSHN 466	Food Product Development	4
FSHN 471	Food & Industrial Microbiology	3
FSHN 472	Applied Food Microbiology	3
FSHN 481	Food Processing Unit Operations I	2
FSHN 482	Food Processing Unit Operations I Lab	1
FSHN 483	Food Processing Unit Operations II	2
FSHN 484	Food Processing Unit Operations II Lab	1
ANSC 350 or MCB 450	Principles of Biochemistry in Animals Introductory Biochemistry	3

Major Electives 9

Select 9 hours from the Food Science-related course list below.		
FSHN 175	Science of Fermented Foods	3

FSHN 231	Food Systems: Cacao & Chocolate	2
FSHN 249	Food Service Sanitation	1
FSHN 293	Off Campus Internship (up to 3 credit hours will count toward degree)	0 to 4
FSHN 295	UG Research or Thesis (up to 3 credit hours will count toward degree)	1 to 4
FSHN 345	Strategic Operations Management	3
FSHN 417	Neuroscience of Eating & Drinking	3
FSHN 425	Corporate Food Marketing	3
FSHN 453	Nutrition for Performance	3 or 4
FSHN 464	Beverage Science & Technology	2
FSHN 469	Package Engineering	3
FSHN 480	Basic Toxicology	3
ACE 161	Computer Concepts & Applications	3
ACE 306	Food Law	3
CHEM 233	Elementary Organic Chem Lab I	2
Code	Title	Hours
Total Hours		126

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Sample Sequence

This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence. In the below sequence, CMN 111 & CMN 112 (6 hrs total) is being used to fulfill the Composition I and Communication option. Another option would be to complete RHET 105 (4 hrs) and CMN 101 (3 hrs).

Students must fulfill their Language Other Than English requirement by successfully completing a third level of a language other than English. For more information, see the corresponding section on the Degree and General Education Requirements page (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

First Year		
First Semester	Hours Second Semester	Hours
IB 100 or 105	3 FSHN 120 or 220	3
MATH 220 or 221	4 Communication Option or Composition I	3
Composition I or Communication Option	3 CHEM 102 & CHEM 103	4
FSHN 101	3 FSHN 232	3
FSHN 123	1 CPSC 116	3
	14	16
Total Hours 30		

Second Year		
First Semester	Hours Second Semester	Hours
CHEM 104 & CHEM 105	4 CHEM 232	3
MCB 100	3 Statistics Option	3
PHYS 101	5 FSHN 201	3
FSHN 230	1 FSHN 260	2
LEAD 260	3 General Education course	3
	General Education course	3
	16	17
Total Hours 33		

Third Year		
First Semester	Hours Second Semester	Hours
ANSC 350 or MCB 450	3 FSHN 418	4
FSHN 302	3 FSHN 471	3
FSHN 414	3 FSHN 472	3
FSHN 416	3 FSHN 481 & FSHN 482	3
FSHN 460	3 Language Other than English (3rd level)	4
	15	17
Total Hours 32		

Fourth Year		
First Semester	Hours Second Semester	Hours
General Education course	3 FSHN 466	4
FSHN 419	3 General Education course	3
FSHN 483	2 Major Elective course	3
FSHN 484	1 Major Elective course	3
General Education course	3 Major Elective course	3
General Education course	3	
	15	16
Total Hours 31		

Total Hours: 126

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All graduates of the Illinois Food Science Major will achieve the following:

Graduates are A) competent in core food science areas and B) can integrate and apply their knowledge to solve real-world problems and make decisions. Core Food Science Areas include Food Chemistry and Analysis, Food Safety and Microbiology, Food Processing and

Engineering, and Sensory Science. Associated Areas include Nutrition and Health, Quality Assurance, and Food Laws and Regulations.

- Graduates possess strong critical thinking and problem-solving skills.
- Graduates are proficient communicators.
- Graduates possess impactful professional and leadership skills.
- Graduates possess aspirational goals.

Graduates of our Food Science program:

1. value diversity
2. are confident in their abilities
3. volunteer their services to their professional and societal communities, and
4. take professional and ethical responsibility for their actions.

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Food Science and Human Nutrition

Food Science and Human Nutrition Website (<https://fshn.illinois.edu>)
 260 Bevier Hall
 905 S. Goodwin Ave.
 Urbana, IL 61801
 217-244-4498
fshn-general@illinois.edu

College of Agricultural, Consumer & Environmental Sciences

College of Agricultural, Consumer & Environmental Sciences Website (<https://aces.illinois.edu/>)

ACES Office of Academic Programs

128 Mumford Hall
 1301 West Gregory Drive
 Urbana, IL 61801
 217-333-3380
aces-academics@illinois.edu

Advising

Advising Website (<https://fshn.illinois.edu/about/contact-us/#paragraph-441>)
 217-244-4498
fshn-general@illinois.edu

Admissions

ACES Undergraduate Admissions (<https://aces.illinois.edu/admissions/>)
 University of Illinois Urbana-Champaign Undergrad Admissions (<https://www.admissions.illinois.edu/>)
 217-333-3380
visitACES@illinois.edu