

FOOD SCIENCE & HUMAN NUTRITION: FOOD SCIENCE, MS

for the Master of Science in Food Science and Human Nutrition, Food Science Concentration

The Food Science concentration can be completed as an on-campus program or an online program.

- **On-Campus MS Food Science Program information** (<https://fshn.illinois.edu/academics/graduate-degrees/food-science-ms-phd/>)
- **Online MS Food Science Program information** (<https://fshn.illinois.edu/academics/graduate-degrees/food-science-ms-online-non-thesis/>)

Research Areas

In addition to receiving training in the general field of food science or human nutrition, you have the opportunity to study a wide-variety of research areas related to food science, including these general focal areas of strength:

- food chemistry
- sensory science
- food microbiology
- chemical/microbial food safety
- food processing and engineering

Click here for more information about our Graduate Degree Programs (<https://fshn.illinois.edu/academics/graduate-degrees/>)

Admission

In addition to meeting the Graduate College admission requirements, a student planning to pursue a graduate degree in the department should have a baccalaureate degree in a recognized field of biological, physical, agricultural, or engineering science. Background deficiencies may be removed with graduate credit courses designed for this purpose.

Click here to Review all Food Science and Human Nutrition Admission requirements (<https://fshn.illinois.edu/future-students/admissions/graduate-admissions/>)

All applicants whose native language is not English must submit a minimum TOEFL (<http://www.toefl.org/>) score of 79 (iBT); or minimum International English Language Testing System (IELTS) (<http://www.ielts.org/>) academic exam scores of 6.5 overall. Applicants may be exempt from the TOEFL if certain criteria (<http://grad.illinois.edu/admissions/instructions/04c/>) are met. For those taking the TOEFL or IELTS, full admission status (<http://grad.illinois.edu/admissions/instructions/04c/>) is granted for scores greater than 102 (TOEFL iBT), or 7.0 (IELTS). Limited status (<http://grad.illinois.edu/>)

[admissions/instructions/04c/](http://grad.illinois.edu/admissions/instructions/04c/)) is granted for lesser scores and requires enrollment in English as a Second Language (ESL) courses (<https://linguistics.illinois.edu/languages/english-second-language/>) based on an ESL Placement Test (EPT) taken upon arrival to campus.

The Clinical Community and Nutrition, Food Science, and Human Nutrition MS are STEM-designated program.

Online Program

A non-thesis Master of Science in Food Science program is offered via live, synchronous online sessions using distance education technology. The program ensures the same degree of excellence, and courses are instructed by the same faculty, as the on-campus non-thesis program. Courses are typically offered in the evening. For requirements and additional information, please contact Dr. Dawn Bohn (dbrehart@illinois.edu).

Graduate Teaching Experience

Teaching is neither a Graduate College nor a FSHN requirement. A limited number of teaching assistantships are available to FSHN graduate students. Students are selected to be Graduate Teaching Assistants by the Department Head in consultation with the course instructor.

Financial Aid

Financial aid for thesis track graduate students is available in the form of fellowships, teaching and research assistantships, and tuition and partial fee waivers. Qualified candidates are considered for financial support upon application. Additional information on financial aid (<https://fshn.illinois.edu/future-students/financial-support/graduate-financial-support/>) for graduate students.

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Undergraduate training must include statistics (ACE 261, CPSC 241, ECON 202, MATH 161, PSYC 235, SOC 280, or STAT 100), nutrition (equivalent to FSHN 220), and systemic physiology (equivalent to MCB 246). These undergraduate courses are not required for admission, but must be completed early in the graduate program and do not count toward concentration requirements.

Additional courses may be required beyond the concentration minimum, per Advisory Committee recommendations, depending upon student/advisor learning objectives. If you have already taken a required course at the University of Illinois Urbana-Champaign, it is highly recommended that you do not retake it. If you have taken a very similar course at another university, you are strongly encouraged to petition for acceptance of that course in lieu of the required course. Courses should be selected to expand and strengthen your knowledge in core and related disciplines, and/or to increase your research capabilities. For additional advice on this topic, contact your advisor and faculty advisory committee.

Course selection is flexible beyond this list if decided in consultation with advisor/advisory committee.

For additional details and requirements refer to the department's graduate handbook (<https://fshn.illinois.edu/academics/graduate-degrees/graduate-student-resources/>) and the Graduate College Handbook (<http://www.grad.illinois.edu/gradhandbook/>).

This degree program can be completed with or without a thesis, with a total of 32 hours required.

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Code	Title	Hours
Thesis Option		
Required Concentration Hours		26-27
FSHN 597	Graduate Seminar	0 to 1
or NUTR 500	Nutritional Sciences Seminar	
FSHN 599	Thesis Research (6 hours)	6
Total Hours Thesis Option		32
Non-Thesis Option		
Required Concentration Hours		26-27
FSHN 597	Graduate Seminar	0 to 1
or NUTR 500	Nutritional Sciences Seminar	
Total Hours Non-Thesis Option		32

Other Requirements

Requirement	Description
Other requirements may overlap	
Minimum Hours Required Within the 8 Unit:	
Minimum 500-level Hours Required Overall	12
Additional courses may be required beyond the concentration minimum per Advisory Committee recommendation	
Oral Final Exam	Non-Thesis Only
Final Exam/Thesis Defense Required	Thesis Only
Thesis Deposit Required	Thesis Only
Minimum GPA:	3.0

Food Science Concentration Requirements Requirements for both options:

Code	Title	Hours
Total Hours for Concentration in Food Science		26-27
Required Courses:		16-17
FSHN 481	Food Processing Unit Operations I	2
FSHN 483	Food Processing Unit Operations II	2
FSHN 514	Advanced Food Chemistry	3
FSHN 573	Advanced Food Microbiology	3
FSHN 593	Seminar in Foods and Nutrition	2
FSHN 595	Advanced Topics in Food Science and Human Nutrition (Section: Nutrition for Food Scientists)	4

Electives:

Food Processing and Engineering		
ABE 498	Special Topics (Section: Engineering Application of Nano-scale Biology)	0 to 4
FSHN 460	Food Processing Engineering	3
FSHN 482	Food Processing Unit Operations I Lab	1
FSHN 484	Food Processing Unit Operations II Lab	1
FSHN 595	Advanced Topics in Food Science and Human Nutrition (Section: Advanced Food Processing)	1 to 4
Food Chemistry		
FSHN 416	Food Chemistry Laboratory	3
FSHN 517		
FSHN 518	Chemistry of Lipids in Foods	3
FSHN 519	Flavor Chemistry and Analysis	4
FSHN 595	Advanced Topics in Food Science and Human Nutrition (Section: Transport in Food Biopolymers)	0 to 4
FSHN 595	Advanced Topics in Food Science and Human Nutrition (Section: Water Relations in Foods)	0 to 4
Food Microbiology		
FSHN 574	Value Added Biotransformation	3
FSHN 595	Advanced Topics in Food Science and Human Nutrition (Section: Food Safety for Global Food Security)	0 to 4
Others (of interest to many)		
FSHN 424	Biopsychology of Ingestive Behavior	3
FSHN 440	Applied Statistical Methods I	4
FSHN 502	Advanced Sensory Science	3
FSHN 592	Graduate Internship Experience	2
FSHN 598	Advanced Special Problems (Up to 2 hours for thesis degrees; up to 6 hours for non-thesis M.S. degree.)	1-8
or NUTR 593	Individual Topics in Nutrition	
CPSC 541	Regression Analysis	4
CPSC 542		5
NUTR 550	Grantsmanship and Ethics	3

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Code	Title	Hours
FSHN 416	Food Chemistry Laboratory	3
FSHN 460	Food Processing Engineering	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
FSHN 502	Advanced Sensory Science	3
FSHN 514	Advanced Food Chemistry	3
FSHN 518	Chemistry of Lipids in Foods	3
FSHN 519	Flavor Chemistry and Analysis	4

FSHN 573	Advanced Food Microbiology	3
FSHN 574	Value Added Biotransformation	3
FSHN 592	Graduate Internship Experience (Only 2 Internship credits can count toward degree requirements)	0 to 12
FSHN 593	Seminar in Foods and Nutrition	2
FSHN 595	Advanced Topics in Food Science and Human Nutrition	0 to 4

Department website (<https://fshn.illinois.edu/>)
 Graduate Program Overview (<https://fshn.illinois.edu/graduate/program-overview/>)
 Faculty Directory (<https://fshn.illinois.edu/directory/faculty/>)
 260 Bevier Hall
 905 South Goodwin Avenue
 Urbana, IL 61801
 (217) 244-4498
 FSHNGradAdmissions@illinois.edu

College of Agricultural, Consumer & Environmental Sciences

College of Agricultural, Consumer & Environmental Sciences website (<https://aces.illinois.edu/>)
 College of Agricultural, Consumer & Environmental Sciences Course Catalog website (<http://catalog.illinois.edu/schools/aces/>)

Admissions

Food Science & Human Nutrition Graduate Admissions (<https://fshn.illinois.edu/graduate/apply/>)
 Graduate College Admissions & Requirements (<https://grad.illinois.edu/admissions/apply/>)

Graduate Degree Programs in Food Science & Human Nutrition

Graduate Majors:

- Food Science & Human Nutrition, MS (<http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-ms/>)
 - Concentrations:
 - Clinical & Community Nutrition (<http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-ms/clinical-community-nutrition/>)
 - Food Science (p. 1)
 - Human Nutrition (<http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-ms/human-nutrition/>)
 - Food Science & Human Nutrition, MS - Professional Science Master's (<http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-ms/professional-science-masters/>)
- Food Science & Human Nutrition, PhD (<http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-phd/>)
 - Concentrations:
 - Food Science (<http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-phd/food-science/>)
 - Human Nutrition (<http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-phd/human-nutrition/>)

Joint Degree Program:

- Food Science & Human Nutrition, PhD and Master of Public Health, MPH (http://catalog.illinois.edu/graduate/aces_ahs/joint-degree/food-science-human-nutrition-phd-public-health-mp/)

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Department of Food Science and Human Nutrition

Department Head: Nicki Engeseth (engeseth@illinois.edu)
 Associate Head of Graduate Programs: Pratik Banerjee (pratik@illinois.edu)
 Director of Online Master's Program with a focus on Food Science: Dawn Bohn (dbrehart@illinois.edu)