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/) is granted for lesser scores and requires enrollment in English as a Second Language (ESL) courses (http://linguistics.illinois.edu/students/esl/guidelines/) 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 (http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-ms/food-science/fshn.illinois.edu/graduate/financial-assistance/) 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, 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.
### Code | Title | Hours
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**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
Other requirements may overlap
- Minimum Hours Required Within the 8 Unit: 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
**Total Hours for Concentration in Food Science**: 26-27

#### Required Courses:
- 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
- FSHN 597 Graduate Seminar: 0-1
- or NUTR 500 Nutritional Sciences Seminar

#### Electives:

##### Food Processing and Engineering
- ABE 498 Special Topics (Section: Engineering Application of Nano-scale Biology): 1 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 Fermented & Distilled Beverages: 2
- 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): 1 to 4
- FSHN 595 Advanced Topics in Food Science and Human Nutrition (Section: Water Relations in Foods): 1 to 4

##### Food Microbiology
- 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: 1 to 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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Information listed in this catalog is current as of 11/2023
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/](http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-ms/))
  - concentrations:
    - Food Science (p. 1)
    - Human Nutrition ([http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-ms/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/](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/](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/](http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-phd/food-science/))

Joint Degree Program:


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

Department of Food Science and Human Nutrition

Department Head: Nicki Engeseth
Associate Head of Graduate Programs: Michael Miller (mille216@illinois.edu)
Director of Online Master’s Program with a focus in Food Science: Dawn Bohn (dbrehart@illinois.edu)
Department website ([https://fshn.illinois.edu](https://fshn.illinois.edu))
Graduate Program Overview ([https://fshn.illinois.edu/graduate/program-overview/](https://fshn.illinois.edu/graduate/program-overview/))
Faculty Directory ([https://fshn.illinois.edu/directory/faculty/](https://fshn.illinois.edu/directory/faculty/))
260 Bevier Hall, 905 South Goodwin Avenue, Urbana, IL 61801
(217) 244-4498
Food Science and Human Nutrition email ([http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-ms/food-science/mailtoFSHNGradAdmissions@illinois.edu](http://catalog.illinois.edu/graduate/aces/food-science-human-nutrition-ms/food-science/mailtoFSHNGradAdmissions@illinois.edu))

College of Agricultural, Consumer & Environmental Sciences
College of Agricultural, Consumer & Environmental Sciences website ([http://catalog.illinois.edu/schools/aces/](http://catalog.illinois.edu/schools/aces/))

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