FOOD SCIENCE & HUMAN NUTRITION: FOOD SCIENCE, PHD

Doctor of Philosophy in Food Science and Human Nutrition: Food Science Concentration

The PhD Program in the Department of Food Science and Human Nutrition is a traditional on campus doctoral program. Students are required to have a research advisor and applicants are encouraged to contact department faculty (https://fshn.illinois.edu/directory/faculty/graduate-advising-faculty/) in their areas of interest to inquire about possible research and funding opportunities.

Research Areas for the Food Science Concentration
In addition to receiving training in the general field of food science or human nutrition, students have the opportunity to conduct research in the following areas of specialization:

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

For more information about our Graduate Degree Programs, please visit our website (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.

Review all Food Science and Human Nutrition Admission requirements (https://fshn.illinois.edu/future-students/admissions/graduate-admissions/) online.

International Applicants
Please visit the Illinois Graduate College resources for further admission requirements.

Admission requirements by country (https://grad.illinois.edu/admissions/countries/)

Applicants whose native language is not English (https://grad.illinois.edu/admissions/instructions/04c/)

The Food Science MS and PHD is a STEM-designated program.

Internship in Dietetics
The Department of Food Science and Human Nutrition offers a dietetic internship for master's and doctoral students specializing in human nutrition. Completion of the degree and the internship qualifies the student to take the Academy of Nutrition and Dietetics registration examination administered by the Commission on Dietetic Registration. For information on our dietetic internship program please contact Ms. Jessica Madson (jamadson@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 graduate students is available in the form of fellowships (Fall admission only), teaching and research assistantships, and tuition and partial fee waivers. Qualified candidates are considered for financial support upon application.

Doctor of Philosophy in Food Science and Human Nutrition, Food Science Concentration

Doctoral degrees require successful completion of a minimum of 96 semester hours of graduate credit. Doctoral degree students, regardless of transfer credits or a master's degree completed elsewhere, must complete at least 64 hours of residence credit out of the total of 96 hours required for the doctoral degree. Thesis hours count toward residence credit.

In consultation with the advisor and advisory committee, the remainder of the 64 graduate hours required for the degree consists of courses selected from inside or outside the department that are appropriate for training in the student's field of specialization. Upon completion of all necessary formal courses and special options, the student is required to take an oral preliminary examination. After passage of the preliminary examination, the student's activities are primarily devoted to thesis research. Upon submission of the dissertation, the candidate is required to pass a final oral examination before a graduate faculty committee.

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. A student whose prior education includes course work with identical or similar content to those specified above will be guided by their advisor and Advisory Committee regarding the selection of additional course work needed to meet the minimum hours of the concentration.

Students are encouraged to take new courses, rather than retake required courses they have already taken. If you have already taken a required course at the University of Illinois, it is highly recommended that you do not retake it. No petition is required. 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. Retaking a

course does not meet that objective. For additional advice on this topic, contact your advisor and faculty advisory committee.

Students are required to enroll in another seminar course if they have a conflict that precludes their enrollment in FSHN 597 or NUTR 500. The seminar course may be offered by another department.

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/).

Entering with approved M.S./M.A. degree

Code	Title	Hours
Concentration-specific coursework selected in consultation with advisor		26
FSHN 599	Thesis Research (max applied toward degree)	0 to 16
Total Hours in residence		**64**

Entering with approved B.S./B.A. degree

Code	Title	Hours
Concentration-specific coursework selected in consultation with advisor		26
FSHN 599	Thesis Research (max applied toward degree)	70
Total Hours		**96**

Other Requirements

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

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
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)	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
Food Chemistry		
FSHN 595	Advanced Topics in Food Science and Human Nutrition (Section: Advanced Food Processing)	1 to 4
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)	1 to 4
FSHN 595	Advanced Topics in Food Science and Human Nutrition (Section: Water Relations in Foods)	1 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)	1 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 of FSHN 598 for thesis degrees.)	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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Department of Food Science and Human Nutrition
Department Head: Nicki Engeseth
Associate Head of Graduate Programs: Michael Miller (mille216@illinois.edu)
Food Science and Human Nutrition Department website (https://fshn.illinois.edu/)
Program website (https://fshn.illinois.edu/graduate/program-overview/)
Food Science and Human Nutrition Graduate faculty (https://fshn.illinois.edu/directory/faculty/graduate-advising-faculty/)
260 Bevier Hall, 905 South Goodwin Avenue, Urbana, IL 61801

(217) 244-4498
Food Science and Human Nutrition email
(FSHNGradAdmissions@illinois.edu)

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

Admissions
Overview of Department Admissions & Requirements (https://fshn.illinois.edu/graduate/apply/)
Graduate College Admissions & Requirements (https://grad.illinois.edu/admissions/apply/)