

## Course Requirements for M.S. and Ph.D. Degrees in FSHN

### Concentration in Food Science (26-27 hours minimum)<sup>1, 2, 3</sup>

#### Required courses (16-17 hours)

- FSHN 461 (4 H) - Food Processing I
- FSHN 514 (3 H) - Advanced Food Chemistry
- FSHN 573 (3 H) - Advanced Food Microbiology
- FSHN 593 (2 H) - Seminar in Foods and Nutrition
- FSHN 595 (4 H) - Nutrition for Food Scientists
- FSHN 597 **or** NUTR 500 (required every semester for 0 H; 1 H when defending dissertation) - Graduate Seminar or Nutritional Sciences Seminar, respectively<sup>4</sup>

#### Electives<sup>5, 6</sup>

##### Food Processing and Engineering

ABE 498 (3 H) - Engineering Application of Nano-scale Biology  
FSHN 460 (3 H) - Food Processing Engineering  
FSHN 462 (2 H) - Food Processing II  
FSHN 595 (2 H) - Advanced Food Processing

##### Food Chemistry

FSHN 416 (3 H) - Food Chemistry Laboratory  
FSHN 517 (2 H) - Fermented and Distilled Beverages  
FSHN 518 (3 H) - Chemistry of Lipids in Foods  
FSHN 519 (4 H) - Flavor Chemistry and Analysis  
FSHN 595 (1 H) - Transport in Food Biopolymers  
FSHN 595 (4 H) - Water Relations in Foods

##### Food Microbiology

FSHN 574 (3 H) Value Added Biotransformation  
FSHN 595 (3 H) Food Safety for Global Food Security

##### Others (of interest to many)

FSHN 440 (4 H) - Applied Statistical Methods I  
FSHN 502 (3 H) - Advanced Topics in Sensory Science  
FSHN 592 (up to 2 H) - Graduate Internship Experience  
FSHN 595 (3 H) - Biophysics of Ingestive Behavior  
FSHN 598 **or** NUTR 593 - Advanced Special Problems or Individual Topics in Nutrition, respectively<sup>7</sup>  
CPSC 540 (5 H) - Applied Statistical Methods II  
CPSC 541 (5 H) - Regression Analysis  
NUTR 550 (2 H) - Grantsmanship and Ethics

<sup>1</sup>Undergraduate training must include statistics (ACE 261, CPSC 241, ECON 202, MATH 161, PSYC 235, SOC 280, or STAT 100) and basic science courses relevant to the student's chosen focus (including for example, biochemistry, physical chemistry, microbiology, or material science). These undergraduate courses are not required for admission, but must be completed early in the graduate program and do not count toward concentration requirements. Both M.S. and Ph.D. degrees require at least 12 hours of 500-level course work (including thesis research), and at least 8 of these 12 hours must be in the major field for graduation.

<sup>2</sup>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 FS concentration.

<sup>3</sup>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.

<sup>4</sup>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.

<sup>5</sup>Course selection is flexible beyond this list if decided in consultation with advisor/advisory committee.

<sup>6</sup>Non-thesis M.S. degree students must complete the concentration requirements, including select at least 3 hours of 500-level elective and other courses to equal a total of at least 32 hours.

<sup>7</sup>Up to 2 hours for thesis degrees; up to 6 hour for non-thesis M.S. degree.

The Graduate College requires at least 32 hours for an M.S. degree and 96 hours for a Ph.D. degree. Beyond concentration requirements, thesis research (FSHN 599) and non-concentration 400- and 500-level course work are used to meet the balance of hours required for graduate degree.

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