Catalog description

The program leading to the Ph.D. in Food and Nutrition Sciences is a cooperative offering of faculty in the School of Food and Agriculture. Ph.D. candidates choose a focus (animal science, food science, or human nutrition) as a major area of study and research and a Graduate Committee is formed to include members from one or more of these academic areas. A typical doctoral committee consists of a chair who must hold a doctoral degree, at least two other University of Maine faculty members in the same discipline and another 2-3 faculty members with complementary areas of expertise.

There is no minimum credit requirement. An individualized program of study is developed by the student and Graduate Committee according to guidelines prepared by the Food and Nutrition Sciences Program Committee. Course requirements are flexible but include 4 credits of seminar (FSN 571, FSN 671, SFA 672) with formal courses in food and nutrition sciences and related areas chosen to prepare the student for comprehensive examinations and research expertise. Desirable courses for the candidates for the Ph.D. in Food and Nutrition Sciences are given by each of the cooperating programs and are listed in the Course Descriptions section of this catalog. Additional courses offered by other departments may be taken upon approval of the student's graduate committee.

Students working on a federally-funded research project must also complete a Responsible Conduct of Research (RCR) course before or during the first semester of graduate research. The training is required for all doctoral students. The following courses may be taken to satisfy the RCR requirement:

- FSN 524 - Responsible Design, Conduct and Analysis of Research (3 credits) (may also be used to fulfill the statistics requirement)
- INT 601 - Responsible Conduct of Research (1 credit)
- BIO 505 - Professionalism in Biology (2 credits)
- CMJ 600 - Introduction to Graduate Study in Communication (2 credits)
- PSY 603 - Ethics and Professional Problems (3 credits)
- SFR 521 - Research Methods (3 credits)
- SMS 691 - Marine Science Seminar (1 credit)

Comprehensive examinations are required at the end of formal course work but may be taken no earlier than one year in the program. Both written and oral examinations must be passed. The written must be passed before the oral and a maximum of three attempts is allowed for the written/oral examinations combined.

Doctoral students must document a professional competency ("special skill") unrelated to their dissertation research; this competency may be demonstrated via course work or other practical activities. Competencies may include languages, research techniques such as electron microscopy, innovation engineering, marketing, or distance education.

An original research investigation is carried out under the direction of a major advisor. A dissertation is prepared to describe the results of the research, and results are presented in a

formal seminar. Although Ph.D. students are encouraged to publish manuscripts with their advisors, there is no minimum number of publications required for graduation.

The Food and Nutrition Sciences faculty are located in Hitchner and Rogers Halls. Research facilities are equipped for food safety and microbiology, food processing, food composition, and food quality evaluation. The Sensory Evaluation Center offers computerized sensory evaluation services. A pilot plant for processing fruits and vegetables, seafood and dairy products is available on site. There is a fully-equipped kitchen for food product preparation and several research laboratories for applied human studies or animal research. Special facilities and equipment are available in the College and University, including DNA sequencing, electron and confocal microscopes, and a small animal care facility.