AGRICULTURAL SCIENCES (PH.D.)

https://closa.unh.edu/agriculture-nutrition-food-systems/program/phd/agricultural-sciences

Description

The Ph.D. Agricultural Sciences graduate program offered by the Department of Agriculture, Nutrition, and Food Systems (ANFS) is intended for students interested in careers in plant and animal agriculture, aquaculture, food production and distribution systems, and/or related fields.

Emphasis is placed on acquiring advanced expertise in one or more of the diverse components of agricultural systems, including breeding and genetics, physiology, environmental interactions, organismal health, cultural and post-harvest practices, and others. The agricultural sciences graduate programs prepare students to become highly knowledgeable and competent in professional fields related to agriculture, and leaders in collaborative and interdisciplinary efforts to address local, regional, national and/or global agricultural issues.

Graduates may pursue careers in teaching, public service, research in federal, state, and private organizations, commercial plant and/or animal production for food, fiber, fuel, recreation, and many other areas.

The Ph.D. program is thesis-based, with the expectation of generating and publishing substantial new knowledge in the field of interest.

Requirements

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Students work with their advisor and their Doctoral Guidance Committee to plan a program of study including the required core courses and competencies, and develop a viable research proposal. The Guidance Committee is normally established by the end of the first semester, and should meet by the end of the second semester. The student presents to the Guidance Committee a preliminary research proposal in which the soundness, originality, and feasibility of the planned research are clearly described. The Guidance Committee is responsible for approving the proposal, and also oversees the qualifying examination through which the student is admitted to doctoral candidacy. The Doctoral Dissertation Committee is established at this point. To earn the Ph.D. degree, students must complete an original dissertation project, present the results at a public seminar, pass an oral dissertation defense consisting of questions from members of the Dissertation Committee, and have the dissertation approved by the Dissertation Committee and accepted by the Graduate School.

Number of Credits Required

There is no specific credit requirement for the Ph.D., though students must take the required core courses and fulfill the competencies stated in the following section. Up to 8 credits of graduate credit from another institution may be transferred, provided the credits were not counted toward another degree, and the course grade was a B or higher. Petitions requesting transfer credit must be supported by the advisor and graduate committee, and approved by the UNH Graduate School.

Required Courses, Competencies, and Electives

Students in the Agricultural Sciences Graduate Programs are required to take two core courses: ANFS 895 Special Topics Introduction to Agriculture, Nutrition and Food System Graduate Studies (to be taken at the earliest opportunity: typically in the initial fall semester of the graduate program); and ANFS 997 Agriculture, Nutrition, and Food Systems Seminar (1 cr per semester, to be taken at least three times by Ph.D. students). In addition, students will be expected to fulfill competency requirements in experimental design and analysis and in scientific writing and communication. For this purpose, relevant courses include Applied Biostatistics II (BIOL 811), Design, Analysis, and Interpretation of Experiments (BIOL 933), and Scientific Writing (e.g., Writing and Publishing Science (BIOL 902)). Depending on the prior background of incoming students, one or both of these competency requirements may have been fulfilled through previous graduate or other course work or professional experience. Each student, in consultation with their graduate committee, will define one or more areas of informal specialization, and will take additional courses appropriate for their area(s) of specialization.

Additional Information/Requirements

All students in the Agricultural Sciences Graduate Programs are expected to present their research in public seminars (including the UNH Graduate Research Conference), and acquire teaching and/or mentoring experience.