ANIMAL SCIENCE (MS, PHD)

The Department of Animal Science offers two graduate degrees: Masters of Science (M.S.) and Doctor of Philosophy (Ph.D.). The M.S. degree may be awarded either as a thesis (Plan A) or non-thesis degree (Plan B). The Animal Science department is diverse, with a large variety of student and faculty interests. As a result, each student's program is quite flexible, and is shaped by the student in consultation with their major advisor and Graduate Advisory Committee. Courses elected shall be consistent with the student's objectives and related to the field in which the degree is to be taken. The M.S. and Ph.D. degrees in Animal Science offer several areas of concentration within the Animal Science Field of Study: Animal Genetics and Genomics, Stem Cell and Regenerative Biology, Animal Physiology, Animal Nutrition, Meat Science, and Food Microbiology and Safety. The Ph.D. degree requires demonstrated capabilities for conducting independent research plus related scholarly attributes.

Requirements

The M.S. and the Ph.D. requirements in Animal Science conform to the Graduate School requirements. Both degrees have specific course requirements described below. Additional course requirements for the M.S. and Ph.D. in Animal Science are determined by the student's advisory committee consistent with the minimum requirements specified by The Graduate School.

Plan A (Research/Thesis) M.S. in Animal Science

Students must complete a minimum of 30 credits, of which a minimum of 21 credits must include advanced coursework, with no more than three of these credits coming from independent studies or ANSC 5692 Research. A minimum of nine credits must include GRAD 5950 Master's Thesis Research or GRAD 5960 Full-Time Master's Research.

Required Courses

ANSC 5693 Graduate Presentation Skills and ANSC 5694 Animal Science Seminar. The plan of study shall consist largely of courses at the 5000 level or above. No more than six credits of coursework at the 3000 or 4000 level may be counted towards the degree.

Final Exam and Thesis Defense

Students must defend their thesis at a public seminar. The defense must be completed no later than one year after completion of coursework or the thesis. Following the presentation, the Advisory Committee will administer a final examination. The format of this examination is at the discretion of the Major Advisor/Advisory Committee, and its purpose is to assess the student's understanding of the area that they have emphasized, their research, and their thesis.

Publication

Students must submit at least one first-author manuscript, suitable for publication, to their Major Advisor before defending their thesis. In some circumstances, the Major Advisor, in consultation with the Advisory Committee, may modify or waive this requirement.

Plan B (Non-thesis) M.S. in Animal Science

Students must complete a minimum of 30 credits, of which a minimum of 24 credits must include formal coursework, and a minimum of four credits must include ANSC 5692 Research or ANSC 5699 Independent Study. The research component of the Plan B program can involve library research, assistance on laboratory-based projects, computer or data analysis, or any form of scholarly activity approved by the Major Advisor and the Advisory Committee.

Required Courses

ANSC 5694 Animal Science Seminar. No more than six credits of coursework at the 3000 or 4000 level may be counted towards the degree.

Final Exam

After completion of all required courses and the research component, the student is required to give a formal presentation of their work. The presentation is open to all faculty members in the department and can be scheduled as part of the departmental seminar series. Following the presentation, the Graduate Advisory Committee will administer a final examination. The format of this examination is at the discretion of the major advisor and the Graduate Advisory Committee, and its purpose is to assess the student's understanding of the area that they have emphasized. The final examination must be completed no later than one year after completion of coursework.

Ph.D. in Animal Science

Each Ph.D. plan of study must include 30 credits of course work beyond the baccalaureate degree or its equivalent, or at least 15 credits beyond the master's degree or other advanced degree in the same or a closely related field of study.

Required Courses

Ph.D. students must complete ANSC 5601 Experimental Design in Animal Science (or equivalent course in experimental design as approved by the student's Graduate Advisory Committee), one credit of ANSC 5693 Graduate Presentation Skills and two credits of ANSC 5694 Animal Science Seminar and one 3-credit course in data analysis/statistics related to their Area of Concentration that is approved by the student's Graduate Advisory Committee.

Students who have previously completed one credit of ANSC 5693 Graduate Presentation Skills and/or ANSC 5601 Experimental Design in Animal Science or equivalent course in experimental design as approved by the student's Graduate Advisory Committee) and/or one three-credit course in data analysis/statistics related to their Area of Concentration that is approved by the student's Graduate Advisory Committee are exempt from those requirements.

In addition to course work, satisfactory completion of at least 15-credits of GRAD 6950 Doctoral Dissertation Research or GRAD 6960 Full-Time Doctoral Research.

General Exam

Report on the General Examination, indicating the result of the entire examination and the names of all faculty members participating, must be signed by the members of the Graduate Advisory Committee and submitted to the Office of the Registrar no later than the date of the submission of the Dissertation Proposal (see below).

Dissertation Proposal

Each student must submit a dissertation proposal. The written dissertation proposal must first be approved by the Advisory Committee, then two copies must be submitted to the Department Head at least

two weeks in advance of the dissertation proposal defense for external review. A public presentation of the student's research dissertation proposal is to be held prior to final approval. The dissertation proposal should be submitted to the Office of the Registrar for final approval by the time the student has completed the ninth credit of GRAD 6950 Doctoral Dissertation Research or GRAD 6960 Full-Time Doctoral Research. The approved Dissertation Proposal must be on file in the Office of the Registrar before the public announcement of the oral defense of the dissertation, but it is highly advisable to complete the dissertation proposal 12 to 18-months in advance.

Final Exam and Doctoral Dissertation Defense

Students must defend their dissertation at a well- advertised, public seminar. Following the presentation, the Advisory Committee will administer a final examination. The format of this examination is at the discretion of the Major Advisor/Advisory Committee, and its purpose is to assess the student's understanding of the area that they have emphasized, their research, and their dissertation.

Publication

Students must submit at least one first-author, full-length, primary research manuscript, suitable for peer-reviewed publication, to their Major Advisor before defending their dissertation. This requirement does not include reviews, abstracts, or technical papers. In some circumstances, the Major Advisor, in consultation with the Advisory Committee, may modify or waive this requirement.