ANIMAL SCIENCE

Dual-Titles DUAL-TITLE PH.D. IN Animal Science AND Microbiome Sciences

Requirements listed here are in addition to requirements listed in GCAC-208 Dual-Title Graduate Degree Programs (https:// gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/ gcac-208-dual-titles/).

ANSC Ph.D. students with research and educational interests in Microbiome Sciences may apply for admission to the Microbiome Sciences Dual-Title Degree Program. Students must first apply and be admitted to the ANSC graduate program and The Graduate School before applying for admission to the dual-title program.

The qualifying examination for ANSC will satisfy the qualifying examination requirement for the dual-title degree program in Microbiome Sciences. The application for the dual-title degree program may be completed before or after the qualifying examination in the major program, as long as the application takes place before the end of the fourth semester.

To obtain this dual-title, students must satisfy the degree requirements for the Ph.D. in ANSC, listed in the ANSC Degree Requirements section. In addition, students must complete the degree requirements for the MBIOM dual-title, listed on the Microbiome Sciences Bulletin page (http://bulletins.psu.edu/graduate/programs/majors/ biogeochemistry/). Students must complete a total of 15 credits including 2 credits of MBIOM 550 (https://bulletins.psu.edu/universitycourse-descriptions/graduate/mbiom/) and at least 13 credits chosen in consultation with the adviser from an approved list of courses, with at least 3 credits in each of the following areas: Microbial Sciences, Ecology and Evolution, and Bioinformatics and Research Tools. Eight of the 15 total credits must be taken at the 500-level. No more than six of the 15 total credits can be offered by the ANSC program.

In addition to the general Graduate Council requirements for Ph.D. committees (https://gradschool.psu.edu/graduate-educationpolicies/gcac/gcac-600/gcac-602-phd-committee-formation/), the Ph.D. committee of a ANSC and Microbiome Sciences dual-title Ph.D. student must include at least one member of the Microbiome Sciences Graduate Faculty. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role. If the chair of the Ph.D. committee is not also a member of the Graduate Faculty in Microbiome Sciences, the member of the committee representing Microbiome Sciences must be appointed as co-chair. The Microbiome Sciences representative on the student's Ph.D. committee will develop questions for and participate in the evaluation of the comprehensive examination.

Students in the dual-title program are required to write and orally defend a dissertation on a topic that is approved in advance by their Ph.D. committee and reflects their original research and education in Animal Science and Microbiome Sciences. Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. The dissertation must be accepted by the Ph.D. committee, the head of the graduate program, and the Graduate School.