

MICROBIOLOGY (PH.D.)

Offered by: Natural Resource Sciences (Faculty of Agricultural and Environmental Sciences)

Degree: Doctor of Philosophy

Program Description

The Doctor of Philosophy in Microbiology involves research within, and often across, multiple disciplines of basic and applied environmental sciences that advances our fundamental knowledge about microorganisms as well as leads to improved efficiencies of our managed ecosystems. Specialties within the program range from the study of microbial ecology and diversity in natural, human-induced and extreme environments, molecular genetics, bioinformatics, and bacterial pathogens.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to knowledge. It must show familiarity with previous work in the field and must demonstrate ability to plan and carry out research, organize results, and defend the approach and conclusions in a scholarly manner. The research presented must meet current standards of the discipline; as well, the thesis must clearly demonstrate how the research advances knowledge in the field. Finally, the thesis must be written in compliance with norms for academic and scholarly expression and for publication in the public domain.

Required Courses

Expand allContract all

Course	Title	Credits
NRSC 701	Ph.D. Comprehensive Examination.	0
NRSC 751	PhD Research Proposal.	0
NRSC 752	Teaching Experience.	0
NRSC 753	PhD Research Progress Report.	0
NRSC 754	PhD Final Research Report.	0

Coursework

Course requirements are specified by the staff in the discipline, but are flexible and depend largely on the student's background, immediate interests, and ultimate objectives.