MICROBIOLOGY (PH.D.)

Description

The Department of Molecular, Cellular, and Biomedical Science (MCBS) offers a doctor of philosophy degree in microbiology. Research opportunities are available in a broad range of areas, including plant-microbe interactions, signal transduction, microbial development, host-microbe interactions, environmental microbiology, environmental and molecular virology, microbial ecology, microbial evolution, microbial genetics and genomics, molecular microbiology, and biotechnology. Prospective students planning to apply to the program should contact the graduate program coordinator in microbiology to obtain information on the program. Each applicant to the graduate program must be sponsored by a faculty member in the program. The sponsor's decision is usually based on the Statement of Interest section of the Application to Graduate School form. Laboratory rotations are available for students that may have several potential mentor matches. This rotation must be completed in the first semester and a faculty sponsor must be identified and mutually agreed upon.

Requirements

Ph.D. Degree Requirements

Students with appropriate academic training at the baccalaureate or master’s level may be considered for admission to the doctoral program. Students admitted to the Ph.D. program are required to conduct an independent research project in conjunction with a Microbiology graduate program faculty adviser. Specific coursework is determined in conjunction with the graduate committee. Advancement to candidacy requires the successful completion of the following:

1. All courses required by the graduate committee
2. A written qualifying exam administered by the graduate program coordinator and graduate faculty
3. An independent research proposal developed in conjunction with a faculty adviser
4. An oral defense of the research proposal

Students enrolled in the doctoral program are required to complete one semester of teaching and successfully complete and defend a dissertation based on their research proposal. The acceptance of the dissertation is contingent on its approval by the doctoral committee and evidence that at least two manuscripts based on the thesis research have been submitted to a peer-reviewed journal appropriate to the topic.

All graduate students are required to enroll in and attend MCBS 997 Seminar each semester and present one seminar each year.