

# MICROBIOLOGY AND MOLECULAR GENETICS

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## Graduate Programs

The department offers graduate studies leading to the MS and PhD degrees in various areas of concentration, including microbial physiology, microbial genetics, microbial ecology, microbial pathogenesis, immunology, cell biology and the human microbiome.

## Prerequisites

Applicants for admission must have received the baccalaureate degree from an accredited university or college and must have completed a minimum of 30 semester credit hours in the biological and physical sciences. The Aptitude Test portion of the Graduate Record Examination is required of all applicants. A majority of the departmental graduate faculty must approve applicants.

## The Master of Science Degree

In addition to the general requirements for the degree, the following departmental requirements must be met in attaining 30 credit hours with thesis. The plan of study must include six thesis hours and one credit hour microbiology seminar for the traditional degree. An accelerated MS degree is available that is largely coursework and literature based, which allows completion of the degree in as little as 12 months. Literature research includes at least six credit hours in independent study.

Candidates for the MS degree are expected to attend and participate in all departmental seminars. A final oral examination covering the thesis (or literature research for the accelerated program) is administered by the advisory committee following a public presentation of the candidate's research.

## The Doctor of Philosophy Degree

The study plan of a student entering the program with a bachelor's degree must include 30 credit hours in the biological and physical sciences. Those entering with a master's degree must include 15 hours in courses other than dissertation credits which were not included in the master's study plan. Three hours of microbiology seminar must be included.

Candidates for the PhD are expected to attend and participate in all departmental seminars. Candidates for the PhD degree must pass both a written and an oral qualifying examination. The final examination covering the dissertation research is given promptly after the candidate has given a public seminar on his/her research work.