Microbiology, MS

Program Description

Degree Awarded: MS Microbiology
The MS program in microbiology is designed to prepare students for careers in bacteriology, virology, mycology, immunology and oncology in academic institutions, government agencies or commercial entities.

Students receive advanced training in the study of microbes and their impact on humankind, disease and the environment. They use tools ranging from nanotechnologies and genomics to mathematical models and satellite-based imaging. Students receive training in both teaching and basic, translational and use-inspired research with world-class faculty and collaborative research partners. Faculty members are associated with the School of Life Sciences, The Biodesign Institute, The Translational Genomics Institute, Barrow Neurological Institute, and other area hospitals and research centers.

At a Glance

- College/School: The College of Liberal Arts and Sciences
- Location: Tempe campus

Accelerated Program Options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's and master's degree with:

- Biological Sciences, BS
- Biological Sciences (Biology and Society), BS
- Biological Sciences (Biomedical Sciences), BS
- Biological Sciences (Conservation Biology and Ecology), BS
Biological Sciences (Genetics, Cell and Developmental Biology), BS
Biological Sciences (Neurobiology, Physiology and Behavior), BS
Microbiology, BS
Microbiology (Medical Microbiology), BS
Molecular Biosciences and Biotechnology, BS
Neuroscience, BS

Acceptance to the graduate program requires a separate application. During their junior year, eligible students are advised by their academic departments to apply.

Degree Requirements

30 credit hours and a thesis

Required Core (3 credit hours)
MIC 501 Foundations in Microbiology (3)

Electives and Research (21 credit hours)

Culminating Experience (6 credit hours)
MIC 599 Thesis (6)

Additional Curriculum Information
Students should see the academic unit for a complete list of approved electives.

Admission Requirements

Applicants must fulfill the requirements of both the Graduate College and The College of Liberal Arts and Sciences.

Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in the biological sciences, biochemistry or a closely related field from a regionally accredited institution.

Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program, or applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. academic record form
4. personal statement
5. curriculum vitae or resume
6. three letters of recommendation
7. proof of English proficiency

**Additional Application Information**
An applicant whose native language is not English must provide proof of English proficiency regardless of current residency.

Prior research experience is a desired qualification for admission.

**Career Opportunities**
Professionals with tailored research training in specific directions, including microbial physiology, environmental microbiology, evolution and ecology, immunology, virology, and various aspects of modern molecular genetics are in demand for diverse sectors.

Career examples include:

- environmental scientists and specialists (including health)
- lab managers in academic and industrial labs
- medical and clinical laboratory technologists
- microbiologists in diverse sectors including food service and health care industry
- natural sciences managers
- research technicians in academic and industrial labs

**Contact Information**

School of Life Sciences | LSA 181
sols.grad@asu.edu | 480-965-1768