

Microbiology, PhD

LAMICROPHD

Join us to learn how microbes impact human health and the environment, gain theoretical and practical training in your chosen area of interest, and become an expert ready to contribute to the greater good.

Program description

Degree awarded: PHD Microbiology

The PhD program in microbiology offers a dynamic research environment; a broad range of basic, translational and use-inspired research areas; advanced transdisciplinary training; and opportunities to work with world-class faculty and collaborative research partners committed to training scientific leaders with skills necessary for addressing significant global microbiological problems and challenges.

This program focuses on the smallest of living things and immunology. Students can tailor the program around their interests and gain skills in contemporary approaches used in microbiology, biomedicine and biotechnology. They train in a broad array of fields, including microbial ecology and evolution, geomicrobiology, bacterial physiology and genetics, bacterial pathogenesis, metabolic engineering, immunology and vaccine development, and cancer biology.

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](#)

Degree requirements

84 credit hours, a written comprehensive exam, an oral comprehensive exam, a prospectus and a dissertation

Required Core (4 credit hours)

BIO 610 Introduction to Responsible Conduct of Research in Life Sciences (1)

MIC 501 Foundations in Microbiology (3)

Electives or Research (68 credit hours)

Culminating Experience (12 credit hours)

MIC 799 Dissertation (12)

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 a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

Applicants must submit the following:

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 their current residency.

Prior research experience is a desired qualification for admission.

Tuition information

When it comes to paying for higher education, everyone's situation is different. Students can learn about [ASU tuition and financial aid](#) options to find out which will work best for them.

Program learning outcomes

Program learning outcomes identify what a student will learn or be able to do upon completion of their program. This program has the following program outcomes:

- Able to review the scholarly literature associated with research questions in microbiology.
- Able to design and execute a research plan in an area of microbiology under advisement of their mentors.
- Able to communicate science effectively, both orally and in writing.

Career opportunities

Graduates of this program's intense and interactive educational and research training are prepared for advanced careers in research and education, specifically in bacteriology, virology, mycology, immunology and oncology.

Career possibilities are diverse, with opportunities in academic organizations, research and development industries, government service and other professional organizations. Examples include:

- instructors in universities and colleges
- principal investigators in government labs and nonprofit organizations
- professors in universities and colleges
- research associates in universities
- research scientists in industry

Contact information

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