Biology, MS

LABIOMS

Deepen your knowledge about the life sciences and build strong conceptual foundations in frontier areas of modern biology.

Program description

Degree awarded: MS Biology

The MS in biology is a flexible degree program based around a student's individual interests, allowing them to explore areas of biology that thrive outside of traditional boundaries. This degree complements other, more specialized life sciences programs, allowing both interdisciplinary and traditional approaches. Courses include laboratory, field and theoretical work.

This program currently admits students to either a thesis-based pathway or a coursework and capstone option. Students in the thesis pathway receive hands-on training and craft an individualized plan of study focused specifically on their own research interests. They work closely with an advisor from ASU's faculty of top-tier scientists doing research at the forefront of their fields. Students develop foundational research skills in the course of designing and completing their own research project.

In the coursework and capstone pathway, students build an individualized curriculum from a wide variety of courses taught by global experts. In their final semester, they delve more deeply into their own area of interest by completing a capstone project. This option is ideal for students who do not need intensive research training but want to deepen and expand their biological knowledge and skills. The coursework and capstone pathway is also available in an online format.

At a glance

- College/School: <u>The College of Liberal Arts and Sciences</u>
- Location: <u>Tempe</u> or <u>Online</u>

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 plus master's degree with:

Biological Sciences, BS

<u>Biological Sciences (Biology and Society), BS</u>
<u>Biological Sciences (Biomedical Sciences), BS</u>
<u>Biological Sciences (Conservation Biology and Ecology), BS</u>
<u>Biological Sciences (Genetics, Cell and Developmental Biology), BS</u>
<u>Biological Sciences (Neurobiology, Physiology and Behavior), BS</u>
<u>Microbiology, BS</u>
<u>Microbiology (Medical Microbiology), BS</u>
<u>Molecular Biosciences and Biotechnology, BS</u>

Acceptance to the graduate program requires a separate application. Students typically receive approval to pursue the accelerated master's during the junior year of their bachelor's degree program. Interested students can learn about eligibility requirements and <u>how to apply</u>.

Degree requirements

30 credit hours and a thesis, or30 credit hours including the required applied project course (BIO 593), or30 credit hours including the required capstone course (BIO 597)

Required Core (1 credit hour)

BIO 610 Introduction to Responsible Conduct of Research (RCR) in Life Sciences (1) or BIO 611 Current Topics in Responsible Conduct of Research (RCR) in the Life Sciences (1)

Other Requirements (2 credit hours)

BIO 541 SOLS Seminar Series (1)BIO 542 SOLS Current Topics in the Life Sciences (1)

Electives (21 or 24 credit hours)

Culminating Experience (3 or 6 credit hours)

BIO 593 Applied Project (3) BIO 597 Capstone (3) BIO 599 Thesis (6)

Additional Curriculum Information

Students choose one of three culminating experience options listed above. The credit hours required for the electives depends on the culminating experience chosen as all students must complete 30 credit hours for this degree program.

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 biology or a related discipline 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 <u>proof of English proficiency</u> regardless of their current residency.

It is desired that applicants have research experience.

Tuition information

When it comes to paying for higher education, everyone's situation is different. Students can learn about <u>ASU tuition and financial aid</u> options to find out which will work best for them.

Attend online

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may <u>view the program's ASU Online page</u> for program descriptions and to request more information.

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:

- Qble to review the literature relevant to a research topic in their chosen area of biology.
- Able to execute a research plan of their own design that addresses a significant scientific question about their chosen area of biology.
- Able to communicate the rationale and results of their research, both orally and in writing.

Career opportunities

This master's degree program prepares students for life sciences careers in educational, medical, industrial and governmental institutions.

The thesis pathway is ideal for those pursuing research-intensive careers in academic or business settings. The coursework and capstone option is for those seeking careers in which deeper biological knowledge is valuable, such as secondary school teachers reaching for higher certifications, biotechnicians who want to add conceptual depth or analytical abilities to their laboratory skills, and writers who want to expand their scientific expertise.

Career examples include:

- food, agriculture and health care scientists in academic, private and industrial labs
- instructors at community colleges
- researchers and technicians in government labs and nonprofit organizations
- science teachers in elementary and high schools
- science writers
- wildlife, animal and conservation scientists

Contact information

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