

Biological Sciences (Biomedical Sciences), BS

LABSCMBS

Are you passionate about health care and biomedical research? Are you eager to experience groundbreaking research and understand the process of scientific discovery? Build a strong pre-health foundation of knowledge, critical thinking skills and key lab techniques that will give you a valuable edge in your career.

Program description

The BS program in biological sciences with a concentration in biomedical sciences is tailored for students who wish to pursue careers in medicine, other health professions or biomedical research.

Curriculum aligns with the broad scientific competencies recommended for premedical students. Students will be well prepared for the MCAT and medical school admission and well versed in the core concepts, competencies and critical intellectual skills necessary for success in medical school or biomedical research.


In addition to coursework, students gain hands-on experience with world-renowned faculty with opportunities to engage in independent research projects or internships to jump-start their professional careers.

This program is available as an [accelerated degree program](#).

In addition to the guidelines in the Concurrent Program Options section below, students interested in pursuing concurrent or second baccalaureate degrees in The College of Liberal Arts and Sciences are advised to visit [The College's website](#) for more information and requirements.

At a glance

- College/School: [The College of Liberal Arts and Sciences](#)

- **Location:** [Tempe](#) or [Online, ASU Local](#)
- **Second language requirement:** No
- **First required math course:** MAT 251 - Calculus for Life Sciences
- **Math intensity:** Moderate 

Required courses (Major Map)

[2024 - 2025 Major Map \(on-campus\)](#)

[2024 - 2025 Major Map \(online\)](#)

[Major Map \(Archives\)](#)

Concurrent program options

Students pursuing concurrent degrees (also known as a "double major") earn two distinct degrees and receive two diplomas. Working with their academic advisors, students can create their own concurrent degree combination. Some combinations are not possible due to high levels of overlap in curriculum.

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:

[Biology \(Biology and Society\), MS](#)

[Biology, MS](#)

[Computational Life Sciences, MS](#)

[Global Management, MGM](#)

[Microbiology, MS](#)

[Molecular and Cellular Biology, MS](#)

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 [how to apply](#).

Admission requirements

General university admission requirements:

All students are required to meet general university admission requirements.

[First-year](#) | [Transfer](#) | [International](#) | [Readmission](#)

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.

Change of Major Requirements

A current ASU student has no additional requirements for changing majors.

Students should visit the [Change of Major form](#) for information about how to change a major to this program.

Attend online

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may [view the program's ASU Online page](#) for program descriptions and to request more information.

ASU Local

It is now possible to earn an ASU degree with [ASU Local](#), an integrated college experience in which students take advantage of in-person success coaching and programming experiences on site while completing one of 130+ undergraduate online degree programs, all of which come with online faculty interaction and tutoring support.

Transfer options

ASU is committed to helping students thrive by offering tools that allow personalization of the transfer path to ASU. Students may use [MyPath2ASU®](#) to outline a list of recommended courses to take prior to transfer.

ASU has [transfer partnerships](#) in Arizona and across the country to create a simplified transfer experience for students. These pathway programs include exclusive benefits, tools and resources, and they help students save time and money in their college journey.

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:

- Demonstrate capacity for scientific thinking by applying relevant background knowledge to analyze and/or develop scientific explanations.

- Effectively communicate complex scientific concepts, ideas, and reasoning with appropriate use of relevant sources and evidence.
- Demonstrate preparedness for graduate/professional degree programs and/or employment.

Global opportunities

Global experience

Through study abroad, whether in a foreign country, in the U.S. or online, students studying biological sciences are able to experience distinct biological environments and gain an understanding of worldwide differences in the human condition. They are exposed to a variety of laws, policies and practices in biology-centric environments worldwide and expand their knowledge of how science impacts society. Students can also engage in community service and outreach all around the world, which can help their graduate and professional program applications stand out.

With more than 300 options available, [Global Education programs](#) allow students to tailor their experience to their specific interests and skill sets. The College of Liberal Arts and Sciences recommends [these programs for students majoring in biological sciences with a concentration in biomedical sciences](#).

Career opportunities

The biomedical sciences concentration within the biological sciences major provides students with a mastery of the competencies and prerequisite requirements valued by graduate programs in medical, dental and optometry fields as well as other programs that prepare students to become physician assistants or physical therapists.

The Bachelor of Science degree program also prepares students with an understanding of the process of science, knowledge of foundational concepts in biological sciences, chemistry, physics and statistics, and the ability to understand and apply core biomedical concepts. This groundwork prepares students for direct entry into biology research careers in a vast number of areas, including genetics, genomics, evolution, physiology and immunology.

Example job titles and salaries listed below are not necessarily entry level, and students should take into consideration how years of experience and geographical location may affect pay scales. Some jobs also may require advanced degrees, certifications or state-specific licensure.

Career	*Growth	*Median salary
Clinical Trial Manager 🌟	4.8%	\$144,440
Dentist	4.4%	\$155,040
Epidemiologist 🌟	26.7%	\$78,520
Family Practice Medical Doctor (FP MD)	3.7%	\$211,300

<u>Laboratory Technologist</u> ☀	4.9%	\$57,380
<u>Medical Scientist</u> ☀	9.8%	\$99,930
<u>Molecular Biologist</u>	3.9%	\$87,300
<u>Pharmacist</u>	2.6%	\$132,750
<u>Physician Assistant (PA)</u> ☀	26.5%	\$126,010

* Data obtained from the Occupational Information Network (O*NET) under sponsorship of the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA).

☀ Bright Outlook

Contact information

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