Biological Sciences (Biomedical Sciences), BS

Are you passionate about attending medical school or doing biomedical research? A strong foundation and experience in ground-breaking research will give you a valuable edge as you take the next steps toward your future.

Program Description

The biomedical sciences concentration serves students in the BS program in biological sciences who wish to pursue careers in medicine, other health professions or biomedical research in academic, clinical or industry settings.

The curriculum aligns with the broad scientific competencies recommended for premedical students in a report of the American Medical Colleges and the Howard Hughes Medical Committee and reflected in the 2015 changes to the Medical College Admission Test. Coursework draws from the school's concentration in genetics, cell and developmental biology and the concentration in neurobiology, physiology and behavior, with the addition of courses in biology and in medicine and society. The concentration focuses on chemistry, biochemistry, math and physics coursework that is necessary to prepare students for the MCAT and for medical school admissions. The concentration emphasizes core concepts, competencies and critical intellectual skills necessary to succeed in medical school or biomedical research.

This program is available as an accelerated degree program.
https://sols.asu.edu/degree-programs/accelerated-bachelor-master-science

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.
https://thecollege.asu.edu/concurrent-and-second-baccalaureate-degrees
At a Glance

- **College/School:** The College of Liberal Arts and Sciences
- **Location:** Tempe campus or online, ASU Local
- **Additional Program Fee:** Yes
- **Second Language Requirement:** No
- **First Required Math Course:** MAT 251 - Calculus for Life Sciences
- **Math Intensity:** Moderate

Required Courses (Major Map)

2022 - 2023 Major Map (On-campus)
2022 - 2023 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 and master's degree with:

- **Biology, MS**
- **Global Management, MGM**
- **Microbiology, MS**
- **Molecular and Cellular Biology, MS**

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

Admission Requirements

**General University Admission Requirements:**
All students are required to meet general university admission requirements.

[Links: Freshman | Transfer | International | Readmission]
Change of Major Requirements

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

Students should refer to https://changemajor.apps.asu.edu 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 description and request more information here.

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. Those interested may learn more about ASU Local here.

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. Students may learn more about these programs by visiting the admission site: https://admission.asu.edu/transfer/MyPath2ASU.

Global Opportunities

Global Experience

By studying abroad, students are able to engage in community service and outreach all around the world, which can help their graduate and professional program applications stand out. Students experience unique biological environments and gain an understanding of worldwide differences in the human condition. Study abroad programs exist across the globe, including a summer in Panama and a year in Ireland. https://goglobal.asu.edu/

The College of Liberal Arts and Sciences recommends the following programs for students majoring in biological sciences with a concentration in biomedical sciences: https://goglobal.asu.edu/students/major/sls/biological-sciences-biomedical-sciences.
Career Opportunities

Graduates are well equipped to enter careers as research scientists or as scientists in the health professions, having met the majority of prerequisite requirements and mastered many of the competencies valued by graduate programs in medical, dental and optometry fields or programs which prepare students to be physician assistants or physical therapists.

Additionally, graduates have an understanding of the process of science, preparing them for a career in research. They have knowledge of foundational concepts in biological sciences, chemistry, physics and statistics and the ability to understand and apply core biomedical concepts. This prepares them for entry into biology research in a vast number of areas, some of which include genetics, genomics, evolution, physiology and immunology.

Career examples include but are not limited to those shown in the following list. Advanced degrees or certifications may be required for academic or clinical positions.

<table>
<thead>
<tr>
<th>Career</th>
<th>*Growth</th>
<th>*Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Scientist (General)</td>
<td>2.2%</td>
<td>$85,290</td>
</tr>
<tr>
<td>Clinical Trial Manager</td>
<td>4.8%</td>
<td>$137,940</td>
</tr>
<tr>
<td>Dentist</td>
<td>2.8%</td>
<td>$158,940</td>
</tr>
<tr>
<td>Epidemiologist</td>
<td>4.6%</td>
<td>$74,560</td>
</tr>
<tr>
<td>Laboratory Technologist</td>
<td></td>
<td>not available</td>
</tr>
<tr>
<td>Medical Scientist</td>
<td>6.1%</td>
<td>$91,510</td>
</tr>
<tr>
<td>Molecular Biologist</td>
<td>2.2%</td>
<td>$85,290</td>
</tr>
<tr>
<td>Pharmacist</td>
<td></td>
<td>$128,710</td>
</tr>
<tr>
<td>Physician Assistant (PA)</td>
<td>31.3%</td>
<td>$115,390</td>
</tr>
</tbody>
</table>

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

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Contact Information

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