Microbiology (Medical Microbiology), BS

LAMICMBS

Is your goal to have a health-related career? With the important critical thinking skills and competencies pertinent to the biomedical sciences and the curricular background that's applicable to the changing world of medicine, you'll be prepared for advanced education in the health area of your choice.

Program Description

The medical microbiology concentration serves students in the BS in microbiology degree program who aim to pursue careers in health professions, medical microbiology or biomedical research.

The curriculum aligns with the scientific competencies recommended for premedical students in a report of the American Medical Colleges and the Howard Hughes Medical Institute Committee and are also reflected in the 2015 changes to the MCAT. Coursework includes many of the courses in the microbiology major, including chemistry, biochemistry, math and physics, with some microbiology courses replaced by cell biology, animal physiology and courses that relate to human biology and society to emphasize core concepts, competencies and critical intellectual skills necessary to succeed in medical school or biomedical research. The concentration includes coursework that students need to prepare for the MCAT or medical school admission.

This program is available as an accelerated degree program. Students can visit this website to learn more about accelerated degree programs:
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
• 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
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

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.
First-year | 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.

**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**

Students gain valuable experience when studying abroad, experience that enhances their resumes. With over 250 programs available, study abroad allows students to tailor their experience to their unique interests and skill sets. Students pursuing a medical microbiology concentration are able to expand their knowledge of how human biology is impacted by a variety of societies and cultures, and they challenge themselves to adapt and persevere in a new and exciting culture. https://goglobal.asu.edu/

The College of Liberal Arts and Sciences recommends the following study abroad programs for students majoring in medical microbiology:

https://goglobal.asu.edu/students/major/sls/microbiology-medical-microbiology.

**Career Opportunities**

Graduates of the bachelor's degree program in microbiology with a concentration in medical microbiology have fulfilled the majority of prerequisite requirements and mastered many of the competencies valued by graduate programs in medical, dental and optometry fields and by programs which prepare students to be physician assistants or physical therapists.

They have knowledge of foundational concepts in biological sciences, chemistry, physics and statistics as well as the ability to understand and apply core microbiology concepts. Additionally, they have a practical understanding of the process of science, preparing them for a career in research. They are prepared to enter research in a number of areas including cellular biology, immunology, bacteriology and virology.

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>Cytotechnologist</td>
<td>not available</td>
<td></td>
</tr>
<tr>
<td>Dentist</td>
<td>2.8%</td>
<td>$158,940</td>
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<tr>
<td>Histology Technologist</td>
<td>not available</td>
<td></td>
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<tr>
<td>Laboratory Technologist</td>
<td>not available</td>
<td></td>
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<tr>
<td>Medical Doctor (MD)</td>
<td>#</td>
<td></td>
</tr>
<tr>
<td>Microbiologist</td>
<td>3.1%</td>
<td>$84,400</td>
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<tr>
<td>Optometrists</td>
<td>4.3%</td>
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<tr>
<td>Orthopedic Surgeon</td>
<td>not available</td>
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<tr>
<td>Pharmacist</td>
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<td></td>
</tr>
<tr>
<td>Physician Assistant (PA)</td>
<td>31.3%</td>
<td>$115,390</td>
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</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).

☀ Bright Outlook  🌿 Green Occupation

**Contact Information**

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