Biotechnology and Bioenterprise, BS

Biotechnology is one of the fastest growing career fields and fields of study at ASU. By combining biotechnology with bioenterprise, you will be equipped to develop biotechnology innovations and thrive in health sciences communities nationwide.

Program Description

The BS program in biotechnology and bioenterprise provides students with essential transdisciplinary and practical experience in biotechnology research. Students acquire the associated business and entrepreneurship skills needed for developing and marketing biotechnological innovations and solutions to problems that face the biotechnology and health sciences communities in Arizona, the nation and beyond.

The program emphasizes coursework in the biological, biomolecular and biotechnological sciences, which are key components that underpin biotechnology. Students may tailor the degree to their specific interests and aspirations through focus areas in biotechnology, bioentrepreneurship and biostatistics.

The program is unique due to its focus on blending biotechnology and entrepreneurship.

This major is eligible for the Western Undergraduate Exchange program at the following location: West campus. Students from Western states who select this major and campus may be eligible for reduced nonresident tuition at a rate of 150% of Arizona resident tuition plus all applicable fees. Students should click the link for more information and eligibility requirements of the WUE program.

At a Glance

- **College/School:** [New College of Interdisciplinary Arts and Sciences](#)
- **Location:** West [WUE](#)
- **Additional Program Fee:** Yes
• **Second Language Requirement:** No
• **First Required Math Course:** First math varies depending on the focus area chosen.
• **Math Intensity:** Substantial

**Required Courses (Major Map)**

2023 - 2024 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 plus master's degree with:

- **Global Management, MGM**

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 college, 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.
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.

Global Opportunities

Global Experience
When studying abroad, students gain valuable experience in diverse settings. Students deepen their understanding of biotechnology and bioenterprise by enhancing their knowledge of research methods across the globe and through exposure to global startups and how countries approach entrepreneurship. Those who study abroad gain heightened skills in communication, critical thinking and leadership that enhance their resumes and give them a competitive edge in their chosen career field.

Career Opportunities

Graduates of this program are prepared for such careers as:

- bioentrepreneur
- cell biologist
- clinical trials manager
- educator
- laboratory researcher
- microbiologist
- patent agent
- portfolio manager
- project manager
- regulatory affairs manager

Career example titles and salaries listed below are not necessarily entry level, and students should take into consideration how years of experience, geographical location, and required advanced degrees or certifications may affect pay scales.

<table>
<thead>
<tr>
<th>Career</th>
<th>*Growth</th>
<th>*Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioinformatics Scientist</td>
<td>3.9%</td>
<td>$87,300</td>
</tr>
<tr>
<td>Role</td>
<td>Growth Rate</td>
<td>Salary</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>Biological Scientist (General)</td>
<td>3.9%</td>
<td>$87,300</td>
</tr>
<tr>
<td>Clinical Trial Manager</td>
<td>4.8%</td>
<td>$144,440</td>
</tr>
<tr>
<td>Data Management Specialist</td>
<td>10.0%</td>
<td>$134,870</td>
</tr>
<tr>
<td>Health Sciences Manager</td>
<td>4.8%</td>
<td>$144,440</td>
</tr>
<tr>
<td>Mathematical Science Assistant</td>
<td>6.2%</td>
<td>$71,700</td>
</tr>
<tr>
<td>Medical and Health Services Manager</td>
<td>28.4%</td>
<td>$104,830</td>
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<tr>
<td>Microbiologist</td>
<td>5.2%</td>
<td>$81,990</td>
</tr>
<tr>
<td>Molecular Biologist</td>
<td>3.9%</td>
<td>$87,300</td>
</tr>
<tr>
<td>Scientist/Biochemist</td>
<td>6.7%</td>
<td>$103,810</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).

![Bright Outlook](image)

**Contact Information**

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