Biotechnology and Bioenterprise, BS

As one of the fastest growing fields at ASU, the biotechnology and bioenterprise graduates gain the skills needed to develop biotechnology innovations and thrive in the health sciences communities nationwide. Students are able to tailor their educational curriculum to focus on any particular area of interest in biotechnology, bioentrepreneurship and biostatistics.

**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 to develop and market biotechnological innovations and solutions to problems facing 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 are able to 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 (WUE) 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 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program.

**At a Glance**

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

- **Math Intensity**: Substantial

## Required Courses (Major Map)

**2018 - 2019 Major Map**
**Major Map (Archives)**

## Admission Requirements

**General University Admission Requirements:**

All students are required to meet general university admission requirements.

Freshman | Transfer | International | Readmission

## Change of Major Requirements

A current ASU student has no additional requirements for changing majors. Students should refer to [https://students.asu.edu/changingmajors](https://students.asu.edu/changingmajors) for information about how to change a major to this program.

## Transfer Options

ASU is committed to helping you thrive by offering tools that allow you to personalize your transfer path to ASU. Students may use the [Transfer Map search](https://students.asu.edu/changingmajors) 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 help students save time and money in their college journey. Learn more about these programs by visiting the [Admissions site](https://students.asu.edu/changingmajors).

## Global Opportunities

**Global Experience**
With over 250 programs in more than 65 countries (ranging from one week to one year), study abroad is possible for all ASU students wishing to gain global skills and knowledge in preparation for a 21st century career. Students earn ASU credit for completed courses, while staying on track for graduation, and may apply financial aid and scholarships toward program costs. https://mystudyabroad.asu.edu/.

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 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>Bioinformatics Scientist</td>
<td>8.0%</td>
<td>$76,690</td>
</tr>
<tr>
<td>Biological Sciences Professor</td>
<td>15.2%</td>
<td>$78,240</td>
</tr>
<tr>
<td>Biological Scientist (General)</td>
<td>8.0%</td>
<td>$76,690</td>
</tr>
<tr>
<td>Biological Technician</td>
<td>10.2%</td>
<td>$43,800</td>
</tr>
<tr>
<td>Clinical Trial Manager</td>
<td>9.9%</td>
<td>$118,970</td>
</tr>
<tr>
<td>Computer Database Architect</td>
<td>9.3%</td>
<td>$88,510</td>
</tr>
<tr>
<td>Data Management Specialist</td>
<td>9.3%</td>
<td>$88,510</td>
</tr>
<tr>
<td>Health Sciences Manager</td>
<td>9.9%</td>
<td>$118,970</td>
</tr>
<tr>
<td>Hydrogeologist</td>
<td>9.9%</td>
<td>$118,970</td>
</tr>
</tbody>
</table>
Marketing Manager ✦ 10.1% $132,230
Mathematical Science Assistant ✦ 11.0% not available
Medical Scientist ✦ 13.4% $82,090
Medical and Health Services Manager ✦ 20.5% $98,350
Microbiologist 8.2% $69,960
Molecular Biologist 8.0% $76,690
Scientist/Biochemist ✦ 11.5% $91,190

* 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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