Earth and Space Exploration (Astrobiology and Biogeosciences), BS

Earth and space exploration majors are making new discoveries about our planet, our solar system and our universe. Astrobiology and biogeosciences students are building space-flight hardware, making astronomical observations, discovering new microbes, exploring extreme environments and investigating the habitability of other planets.

Program Description

Astrobiology studies the origins, evolution, distribution and future of life in the universe. Biogeoscience focuses on the interaction of biological and geological processes on Earth at present and in the geologic past. These topics are closely related because the concepts of biogeoscience inform the study of planetary habitability and the search for habitable worlds. Therefore, the astrobiology and biogeoscience concentration in the BS program in earth and space exploration is designed to offer students a strong foundation for exploring the interaction of geological and biological processes, how such interactions sustain life on Earth, and how they might operate on other planets. This scientific background is needed to contribute to the search for life on other planets as well as the exploration of extreme environments here on Earth. It also provides training in the interplay of forces that impact global change.

At a Glance

- **College/School:** The College of Liberal Arts and Sciences
- **Location:** Tempe campus
- **Additional Program Fee:** Yes
- **Second Language Requirement:** No
- **First Required Math Course:** MAT 265 - Calculus for Engineers I . or MAT 270
- **Math Intensity:** Substantial
Required Courses (Major Map)

2019 - 2020 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 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 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.

Global Opportunities

PLuS Alliance
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/
Global Degree

Career Opportunities

Graduates of the astrobiology and biogeosciences program are well-prepared for graduate studies in these fields. Because astrobiology is increasingly the motivation for NASA exploration missions, they are also well-suited for entry-level careers at NASA research centers. The degree program also provides broad training across a range of science fields, giving students a strong background for careers in biomedical, environmental or sustainability areas.

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>Chemistry Professor 🌟</td>
<td>9.9%</td>
<td>$77,190</td>
</tr>
<tr>
<td>Climate Change Analyst 🌟🌟</td>
<td>11.1%</td>
<td>$69,400</td>
</tr>
<tr>
<td>Environmental Protection Specialist 🌟🌟</td>
<td>11.1%</td>
<td>$69,400</td>
</tr>
<tr>
<td>Environmental Restoration Planner 🌟🌟</td>
<td>11.1%</td>
<td>$69,400</td>
</tr>
<tr>
<td>Environmental Sciences Professor 🌟</td>
<td>9.6%</td>
<td>$76,360</td>
</tr>
<tr>
<td>Geologist 🌟🌟</td>
<td>14.0%</td>
<td>$89,850</td>
</tr>
<tr>
<td>Geology Professor 🌟</td>
<td>9.5%</td>
<td>$87,380</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>
<tr>
<td>Industrial Ecologist 🌟🌟</td>
<td>11.1%</td>
<td>$69,400</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 🌿 Green Occupation

Contact Information
Schedule an advisor appointment
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