Applied Biological Sciences (Natural Resource Ecology), BS

Do you have a passion for wildlife, for exploring nature, and for seeing how our world's natural resources and lands can be managed sustainably? Gain an excellent foundation in science that enables you to build expertise for a career that connects with conservation and restoration of biodiversity and habitats.

Program Description

The concentration in natural resource ecology in the BS program in applied biological sciences offers students the broad base of knowledge they need to sustainably manage natural resources in a variety of ecosystems.

Students learn about fundamental components of natural systems such as soils and water and the plant and wildlife communities they support. Students also learn to measure and assess plant and animal populations through a variety of field techniques and computer tools, including geographic information systems and remote sensing. Knowledge and techniques are applied to case studies in the classroom and laboratory projects.

Students in this program contextualize knowledge through experience-based learning activities, including:

- case studies
- faculty-guided research and service-learning projects
- field trips
- internships
- laboratories and field experiences

This major is eligible for the Western Undergraduate Exchange program at the following location: Polytechnic 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:** College of Integrative Sciences and Arts
- **Location:** Polytechnic
- **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)

- **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:

- **Applied Biological Sciences, MS**

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**

The natural world is complex and diverse, providing different resources from one biome to the next. Not only are natural resources varied across the globe, so are their uses. Students who participate in [Global Education programs](#) gain a deeper understanding of global resources, how different cultures use the resources, and how best to communicate sustainable use to a diverse audience.

**Career Opportunities**

Career opportunities include employment with public agencies and private consulting firms and in positions such as:

- environmental consultant
- environmental researcher and educator
- natural resource manager
- park manager
- watershed manager
- wildlife biologist or ecologist
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>Environmental Analyst</td>
<td>4.1%</td>
<td>$64,460</td>
</tr>
<tr>
<td>Environmental Protection Specialist</td>
<td>6.1%</td>
<td>$76,480</td>
</tr>
<tr>
<td>Environmental Restoration Planner</td>
<td>6.1%</td>
<td>$76,480</td>
</tr>
<tr>
<td>Environmental Sciences Professor</td>
<td>4.2%</td>
<td>$83,040</td>
</tr>
<tr>
<td>Farm Manager</td>
<td>4.1%</td>
<td>$64,460</td>
</tr>
<tr>
<td>Fish and Game Warden</td>
<td></td>
<td>$59,500</td>
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<tr>
<td>Fish and Wildlife Biologist</td>
<td>3.0%</td>
<td>$67,430</td>
</tr>
<tr>
<td>Forestry Technician</td>
<td>0.6%</td>
<td>$41,520</td>
</tr>
<tr>
<td>Park Ranger</td>
<td>4.1%</td>
<td>$64,460</td>
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<tr>
<td>Soil Scientist</td>
<td>4.7%</td>
<td>$65,730</td>
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* 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

Contact Information

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