Environmental and Resource Management, **BS**

**Program Description**

The BS program in environmental and resource management provides critical scientific, engineering, regulatory and management skills for students who plan to pursue careers in industry, government or nongovernmental organizations, focusing on ensuring the health of engineered and natural ecosystems and mitigating the environmental impact of the industrial world.

The curriculum combines a strong foundation in chemistry, physics, biology and mathematics with a solid grounding in environmental law and policy, engineering and management principles. Students learn to apply environmental technologies to manage engineered environmental operations such as drinking water and wastewater treatment, management of hazardous and solid wastes, and the control of industrial and mobile sources of air pollution. They study OSHA, EPA and DOT regulations on health and safety, as well as strategies to protect workers in hazardous environments. International environmental issues and legal frameworks are included along with U.S. environmental laws.

An accelerated BS/MS degree option is available in which up to 12 credit hours of the bachelor's degree may be applied toward the 30 credit hours required for the master's degree in environmental and resource management. A special application is required for this option.

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:** [Ira A. Fulton Schools of Engineering](#)
• Location: Polytechnic WUE

• Additional Program Fee: Yes
• Second Language Requirement: No
• First Required Math Course: MAT 210 - Brief Calculus
• 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:

Environmental and Resource Management (Water Management), MS
Environmental and Resource Management, MS
Technology (Environmental Technology Management), MSTech

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.

Program Learning Outcomes

Program learning outcomes identify what a student will learn or be able to do upon completion of their program. This program has the following program outcomes:

- Evaluate environmental policies and regulations that apply to environmental and resource management.
- Apply management, scientific, and technical solutions to natural and anthropogenic environmental problems.
- Apply sustainable development practices and trends to environmental systems.

Global Opportunities

Global Experience

Study abroad programs in countries such as Japan, Sweden and Germany allow students to further their understanding of the impact the industrial world has on the environment. An open mind and international understanding of these concepts further students’ studies and understanding of the various environmental conditions around the globe. Students earn ASU credit for completed courses, while staying on track for graduation, and may apply financial aid and scholarships toward program costs. https://goglobal.asu.edu/

Career Opportunities

Graduates with the skills gained in this program are in high demand and can find work in industry, governmental management and regulatory agencies or in policy-making organizations.

Graduates are firmly grounded in the scientific, technical, and legal problems facing environmental managers in today's business climate. They are prepared to be environmental, health and safety professionals in industrial settings such as manufacturing, mining, oil and gas or environmental engineering consulting firms. They also assure compliance with OSHA and EPA requirements in laboratories at pharmaceutical companies, water and wastewater treatment facilities or academic labs.
the regulatory side, graduates work for agencies such as the U.S. Environmental Protection Agency or state and county departments of environmental quality.

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>Compliance Manager</td>
<td>not available</td>
<td></td>
</tr>
<tr>
<td>Environmental Compliance Inspector</td>
<td>4.6%</td>
<td>$71,100</td>
</tr>
<tr>
<td>Environmental Engineer</td>
<td>3.1%</td>
<td>$92,120</td>
</tr>
<tr>
<td>Environmental Engineering Technician</td>
<td>7.5%</td>
<td>$51,630</td>
</tr>
<tr>
<td>Environmental Protection Specialist</td>
<td>7.8%</td>
<td>$73,230</td>
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<tr>
<td>Environmental Specialist</td>
<td>8.4%</td>
<td>$46,850</td>
</tr>
<tr>
<td>Health and Safety Engineer</td>
<td>3.9%</td>
<td>$94,240</td>
</tr>
<tr>
<td>Health and Safety Technician</td>
<td>4.8%</td>
<td>$53,340</td>
</tr>
<tr>
<td>Hydrogeologist</td>
<td>4.8%</td>
<td>$137,940</td>
</tr>
<tr>
<td>Water/Wastewater Engineer</td>
<td>1.7%</td>
<td>$88,570</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

Professional Licensure

ASU programs that may lead to professional licensure or certification are intended to prepare students for potential licensure or certification in Arizona. Completion of an ASU program may not meet educational requirements for licensure or certification in another state. For more information, students should visit the ASU professional licensure webpage: [https://admission.asu.edu/academics/licensure](https://admission.asu.edu/academics/licensure).

Students should note that not all programs within the Fulton Schools of Engineering lead to professional licensure.

Contact Information

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