

# Environmental and Resource Management, BS

TSETMBS

## 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. The program focuses 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 Occupational Safety and Health Administration, U.S. Environmental Protection Agency and U.S. Department of Transportation 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**
- **Second language requirement:** No
- **First required math course:** MAT 210 - Brief Calculus
- **Math intensity:** Moderate 

## Required courses (Major Map)

[2024 - 2025 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:

[Environmental and Resource Management \(Water Management\), MS](#)

[Environmental and Resource Management, 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 higher education, 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 must have a minimum cumulative ASU GPA of 2.00.

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.

## 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 allows students of environmental resource management to further their understanding of the impact that the industrial world has on the environment. With an open mind, students further their studies and understanding of the various environmental conditions around the globe.

Students learn to thrive in a global environment through the rich educational and interpersonal experiences inherent in study abroad, and with over 300 [Global Education program opportunities](#) available to them, students are able to tailor their experience to their unique interests and skill sets. Whether in a foreign country, in the U.S. or online, students build communication skills, learn to adapt and persevere, and are exposed to research and internships across the world, increasing their professional network.

A resume enhanced by the valuable study abroad experience will impress prospective employers and will help the student stand out should they decide to pursue advanced study.

## 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 policymaking 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, and environmental engineering consulting firms. They also ensure compliance with OSHA and EPA requirements in laboratories at pharmaceutical companies, water and wastewater treatment facilities or academic labs. On the regulatory side, graduates work for agencies such as the EPA or state and county departments of environmental quality.

Example job titles and salaries listed below are not necessarily entry level, and students should take into consideration how years of experience and geographical location may affect pay scales. Some jobs also may require advanced degrees, certifications or state-specific licensure.

Career	*Growth	*Median salary
<u><a href="#">Compliance Manager</a></u>	3.3%	\$128,620
<u><a href="#">Environmental Compliance Inspector</a></u> ☀	4.6%	\$71,690
<u><a href="#">Environmental Engineer</a></u> ☀	6.1%	\$96,530
<u><a href="#">Environmental Engineering Technician</a></u>	1.3%	\$50,980
<u><a href="#">Environmental Protection Specialist</a></u> ☀	6.1%	\$76,480
<u><a href="#">Environmental Specialist</a></u> ☀	5.8%	\$48,380
<u><a href="#">Health and Safety Engineer</a></u>	3.7%	\$100,660
<u><a href="#">Health and Safety Technician</a></u> ☀	10.1%	\$57,970
<u><a href="#">Hydrogeologist</a></u> ☀	4.8%	\$144,440
<u><a href="#">Water/Wastewater Engineer</a></u> ☀	5.0%	\$89,940

\* 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](#)

## 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.

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

## Contact information

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