Environmental Engineering, BSE

Program Description

The BSE program in environmental engineering educates students to become tomorrow's engineers who solve complex environmental problems and design systems at the human, urban and planetary scales.

Environmental engineers are actively involved with the following topics and activities: air quality monitoring and air pollution control technology; analysis of the fate and transport of pollutants; application of sustainable design principles; design and operation of water and wastewater treatment systems; design of hazardous waste containment systems; design of solid waste management systems; remediation of contaminated soil, sediment and water; and water quality, water conservation and water reuse.

In recognition of the interdisciplinary nature of environmental engineering challenges, the degree program incorporates courses from humanities, social sciences, natural sciences, mathematics and engineering. Environmental engineering courses build on strong foundations in chemistry, microbiology, geology, physics and mathematics. Courses cover fundamental engineering concepts applied to environmental processes and environmental engineering design as well as applied learning experiences, including a required internship or research experience and a capstone design course.

At a Glance

- **College/School:** Ira A. Fulton Schools of Engineering
- **Location:** Tempe

- **Additional Program Fee:** Yes
- **Second Language Requirement:** No
- **First Required Math Course:** MAT 265 - Calculus for Engineers I
- **Math Intensity:** Substantial
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:

Civil, Environmental and Sustainable Engineering, 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

Additional Requirements:

First-year admission:

1. minimum 1210 SAT combined evidence-based reading and writing plus math score or minimum 24 ACT combined score, or minimum high school cumulative GPA of 3.00 in ASU competency courses, or class ranking in top 25% of high school class, and
2. no high school math or science competency deficiencies

Transfer Admission Requirements:

Transfer students with fewer than 24 transferable college credit hours:

1. minimum transfer GPA of 3.00 for fewer than 24 transfer hours, and
2. no high school math or science competency deficiencies, and
3. minimum 1210 SAT combined evidence-based reading and writing plus math score (or 1140 if taken prior to March 5, 2016) or minimum 24 ACT combined score, or a minimum high school
cumulative GPA of 3.00 in ASU competency courses, or class ranking in top 25% of high school class

Transfer students with more than 24 transferable college credit hours:

Primary criteria

1. minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. no high school math or science competency deficiencies (if ASU Admission Services requires submission of a high school transcript)

Secondary criteria

1. minimum transfer GPA of 2.75 for 24 or more transfer hours, and
2. minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses)

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

Admission requirements for many majors in the Ira A. Fulton Schools of Engineering are higher than university admission standards.

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
Global Education programs allow students with an open mind to further their understanding of the impact the industrial world has on the environment around the world, and with more than 300 programs available, students can tailor their experience to their unique interests and skill sets.

Whether in a foreign country, in the U.S., or online, students broaden their educational experience, build communication skills, are challenged to adapt and persevere, and are exposed to research and internships across the world, increasing their professional network. Their participation in study abroad demonstrates to employers they can thrive in a global environment, helping them stand out in a competitive industry.

Students earn ASU credit for completed courses, while staying on track for graduation, and they may apply financial aid and scholarships toward program costs.

Career Opportunities

Graduates from the environmental engineering program have career opportunities in both the private and public sectors.

Opportunities exist in the private sector in both the consulting and manufacturing industries. The consulting industry is growing as greater environmental awareness and emerging novel pollutants require continual refinement of regulations and environmental system design standards, and the manufacturing industry employs environmental engineers to aid in environmental compliance and eco-efficiency.

In the public sector, municipalities and regulatory agencies require a knowledgeable workforce that understands how public policy can improve human health and ecosystem services through environmental engineering processes.

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>Engineering Manager</td>
<td>4.1%</td>
<td>$159,920</td>
</tr>
<tr>
<td>Environmental Engineer 😎</td>
<td>6.1%</td>
<td>$96,530</td>
</tr>
<tr>
<td>Fire Protection Engineer</td>
<td>3.7%</td>
<td>$100,660</td>
</tr>
<tr>
<td>Health and Safety Engineer</td>
<td>3.7%</td>
<td>$100,660</td>
</tr>
<tr>
<td>Water/Wastewater Engineer 😎</td>
<td>5.0%</td>
<td>$89,940</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
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.

Contact Information

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