

NEW PROGRAM: BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING



OVERVIEW

A new bachelor's degree program in Environmental Engineering launched in autumn 2017. The Bachelor of Science in Environmental Engineering (BSEnvE) degree program was added due to student interest in the field and increasing demand for environmental engineers. The program will allow students to gain expertise in environmental engineering by providing a solid foundation in both science and engineering.

What is Environmental Engineering?

Environmental engineers work to both safeguard and improve the quality of the environment. By utilizing a combination of scientific and engineering principles, environmental engineers work to protect the world and its people from negative environmental impacts caused by both natural and human activities. The work of environmental engineers is increasingly important, as healthy environments are critical for enabling livable, sustainable communities and cities.

Types of Careers

Environmental engineers enjoy careers in the following areas:

- Air pollution control
- Environmental sustainability
- General environmental engineering
- Hazardous waste management
- Solid waste management
- Water supply and wastewater engineering

HOW TO APPLY

The BSEnvE program is a minimum requirement admission major at this time. This means that anyone who has completed the prerequisite courses may declare the major. The required junior year curriculum begins in autumn quarter only, so students must complete all prerequisites prior to autumn quarter of their junior year.

Current UW Students

Current UW students may declare the BSEnvE major by filling out an online form available at ce.washington.edu/future/undergrad/environmental/apply.



Transfer Students

Transfer students may declare the major after being admitted to the UW. Learn more at ce.washington.edu/future/undergrad/environmental/transfer.

BSENV PROGRAM PREREQUISITES

The BSEnvE junior year curriculum consists of seven 300-level CEE courses that must be taken in sequence during the academic year. Learn more about junior and senior year coursework at ce.washington.edu/content/degree-requirements. Students must complete all prerequisites by the end of summer quarter in order to begin the junior year curriculum in autumn quarter. A minimum 2.5 grade in each course is required for admission, with a minimum 3.0 cumulative GPA for all courses.



Mathematics

- MATH 124, 125 and 126
- AMATH 351 Applied Diff'l Equations (3 credits)
* MATH 307 accepted

Sciences (35 credits)

- BIOL 180 Intro Biology (5 credits)
- CHEM 142 General Chemistry (5 credits)
- CHEM 152 General Chemistry (5 credits)
- CHEM 162 General Chemistry (5 credits)
- PHYS 121 Mechanics (5 credits)
- PHYS 122 Elect-Mag & Osc (5 credits)
- PHYS 123 Waves (5 credits)

Engineering Fundamentals (16 credits)

- AMATH 301 Beg Sci Computing or CSE 142 Computer Programming I (4 credits)
* AMATH 301 preferred
- AA 210 Statics (4 credits)
- CEE 220 Mechanics of Materials (4 credits)
- AA 260 Thermodynamics (4 credits)

Written Communication (12 credits)

- English Composition (5 credits)

Job Growth

Environmental engineering is projected to grow at a faster rate than other occupations, according to the Bureau of Labor Statistics. Job openings are expected to grow by 22 percent from 2010-2020, which is more than the 14 percent growth projection for all occupations and 11 percent growth for engineers.

MEET TYLER OSHIRO, BSENV STUDENT

When CEE junior Tyler Oshiro turns on a faucet, he sees more than just clean water. He sees the end result of a lengthy process.

"Out comes clean, potable water, but most people don't realize how much design, monitoring and treatment engineering it takes to provide such a life-sustaining resource," Oshiro said.

This passion for water quality and supply is what led Oshiro to enroll in the department's new Bachelor of Science in Environmental Engineering (BSEnvE) degree program. Oshiro is one of 14 students in the program's inaugural class in autumn 2017.

"I want specialized knowledge in purely environmental subjects,"



Oshiro said. "Environmental engineering is continuously growing and deeper technical knowledge at the undergraduate level will hopefully give me an advantage in graduate school and in my first years

in industry."

An interest in environmental engineering surfaced while Oshiro was attending high school in Hawaii, where he was raised. During an environmental science class, Oshiro worked on a science fair project that entailed evaluating the water quality of a local stream. The project, together with what he learned about pollution caused by human activities, led him to develop a deeper interest in the field.

For Oshiro, the timing of the program launch couldn't be better.

"It's very exciting to see it all come to fruition just in time for me to be a part of the inaugural class," Oshiro said.