

# School of Sustainable Engineering and the Built Environment

Graduate programs



Our unique blend of construction management and civil, environmental and construction engineering programs — coupled with a focus on sustainable engineering — enables us to train students who can impact the entire life cycle of the built environment, from planning to design to construction.

[ssebe.engineering.asu.edu](https://ssebe.engineering.asu.edu)

# Degree Programs

## Civil, environmental and sustainable engineering MS, PhD

The civil, environmental and sustainable engineering MS and PhD programs at Arizona State University focus on a wide range of traditional and cross-disciplinary topics dealing with infrastructure, energy and environment, all designed to enhance the sustainability and resiliency of natural systems. Specialty areas include:

- Construction engineering.
- Environmental engineering.
- Geotechnical and geoenvironmental engineering.
- Hydrosystems engineering.
- Structural and materials engineering.
- Sustainable engineering.
- Transportation and pavement engineering.

Both thesis and non-thesis options are offered for the MS program.

## Construction management and technology MS, PhD

The **Del E. Webb School of Construction** is home to the construction management program that encourages professionals to combine knowledge of innovative technologies, construction principles and business management to lead a wide variety of construction projects from residential and commercial buildings to infrastructure projects such as roads, bridges and large facilities. With new technologies and opportunities, construction executives have large responsibilities and impact daily lives.

Construction graduates pursue a wide variety of careers in engineering and construction firms such as project managers, estimators, planners, schedulers and project engineers, or work for owners and developers such as facility or project managers.

Both the MS and PhD programs are designated STEM programs and students can choose a concentration in either construction management or facility management.

The MS in construction management and technology degree is also offered online for students and working professionals who may need the flexibility of an online degree. For more information about ASU Online, please visit **[asuonline.asu.edu](https://asuonline.asu.edu)**.

**Learn more:** [ssebe.engineering.asu.edu/gra](https://ssebe.engineering.asu.edu/gra)

## Construction engineering MSE

The construction engineering MSE program is a multidisciplinary program encompassing the areas of geotechnical engineering, structural and materials engineering, transportation engineering, sustainable engineering, and construction engineering and management-related topics. The degree focuses on a combination of design and management topics preparing graduates for a career working at the interface of design and construction; it is especially desirable to students who are interested in a career emphasizing construction of infrastructure.

The MSE program does not require a thesis, but culminates in a comprehensive exam at the completion of required coursework.

## Environmental engineering MS

The MS program in environmental engineering is designed for students who have a background in agricultural, biological, chemical, civil, environmental engineering or related fields.

The program provides students with advanced knowledge that can be applied to address grand challenges facing society such as how to supply clean water and safe food, design a future without pollution, recover valuable resources from waste, and create healthy and smart cities.

Environmental engineers study nanotechnology, biotechnology, water resources engineering and sustainable engineering.

Both thesis and non-thesis options are offered for the MS program.

## Sustainable engineering online MSE

The online MSE program in sustainable engineering is designed for individuals with an engineering or physical science background who want the flexibility of an online degree. This program integrates complex social, environmental, political and economic considerations so that students can create elegant environmentally, socially and economically efficient engineering solutions for clients and organizations. Students can choose among different tracks to suit their needs and interests, including:

- Earth systems and industrial ecology.
- Infrastructure systems.
- Green buildings and construction practices.
- Global technology and policy.

# Our alumni



A memorable moment that I experienced was being an instructor for CEE 341: Fluid Mechanics for Civil Engineers. I remember my excitement about the opportunity to teach. At the end of the semester, I knew that academia was the right career choice for me.

**Adil Mounir, PhD**

My most memorable experience is when I was challenged by my advisor, Dr. Rolf Halden, to think beyond the traditional applications of wastewater-based epidemiology. This led me to creating the first global inventory of wastewater infrastructure, which represents an initial and essential step toward creating a healthier and more equitable future for human populations around the world.

**Sangeet Adhikari, PhD**



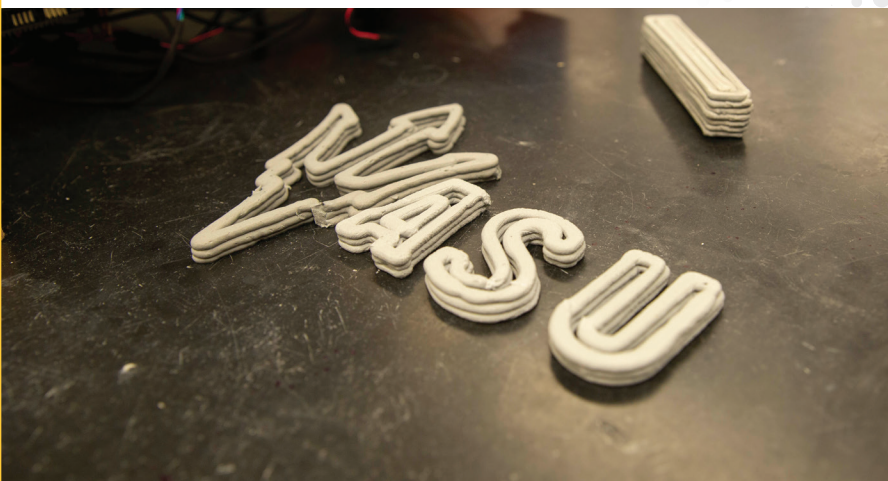
My whole journey at ASU has been amazing. I met great colleagues from diverse backgrounds and learned a lot from the professors who devoted their time to help us grow and develop. I was part of a strong research team working on a funded project for the U.S. Department of Energy, where I applied research methods and processes to positively contribute to the industry, which provided me with an immensely valuable experience.

**Vartenie Aramali, PhD**



# Research

**Our research focuses on the dynamics of sustainable systems,** including restoring and improving urban infrastructure, access to clean water and clean air, advanced construction techniques and management, hydrology and water resources, transportation planning and engineering, geotechnical and geoenvironmental engineering as well as novel structural materials and design methods.



More than **55 faculty** members engage in research in **8 areas** of specialization

**12**  
research  
centers

**Learn more:** [ssebe.engineering.asu.edu/research](https://ssebe.engineering.asu.edu/research)



# Approximately **800** graduate students from **25** countries

**Graduate programs in the  
School of Sustainable Engineering and the Built Environment  
and Del E. Webb School of Construction**

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**The School of Sustainable Engineering and the Built Environment**

offers undergraduate and graduate degrees in civil engineering, construction engineering and environmental engineering; as well as in construction management and technology. A combined civil, environmental and sustainable engineering degree is also offered at the graduate level.

The School of Sustainable Engineering and the Built Environment serves as a nexus for education and research that addresses the critical infrastructure needs of our society in an environmentally sound manner.

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