

Sustainable Engineering, MSE

ESSUEMSE

Program description

Degree awarded: MSE Sustainable Engineering

The MSE in sustainable engineering is a multidisciplinary graduate program ideal for professionals and graduate-level students with engineering and physical science backgrounds who wish to design a flexible individualized plan of study.

Courses cover such sustainable engineering topic areas as energy systems and alternative energy production; water, transportation or earth systems engineering; industrial ecology; life cycle assessment; environmental technologies; green construction practices; and sustainable technology systems.

The goal of sustainable engineering is to enable long-lasting improvement of the human condition. Sustainable engineering transcends traditional engineering education by integrating considerations of complex social, environmental, political and economic factors into engineering theory and practice in order to achieve more economically, technically, environmentally, institutionally and socially efficient and robust solutions.

At a glance

- **College/School:** [Ira A. Fulton Schools of Engineering](#)
- **Location:** [Online](#)

Degree requirements

30 credit hours and a written comprehensive exam, or
30 credit hours including the required applied project course (CEE 593), or
30 credit hours, a thesis

Required Core (9 credit hours)

Infrastructure Systems Track (9 credit hours) or
Green Buildings and Construction Practices Track (9 credit hours) or
Earth Systems Engineering and Industrial Ecology Track (9 credit hours) or
Global Technology and Policy (9 credit hours)

Electives (6-12 credit hours)

Culminating Experience (0-6 credit hours)

comprehensive exam (0) or
applied project (3) or
thesis (6)

Additional Curriculum Information

All students will initially be admitted into the comprehensive exam option. To pursue the applied project or thesis option, students must have a faculty member willing to oversee them.

Students complete nine credit hours in one selected track. Available track options are infrastructure systems, green buildings and construction practices, earth systems engineering and industrial ecology, and global technology and policy. Students should see the academic unit for an approved course list.

Admission requirements

Applicants must fulfill the requirements of both the Graduate College and the Ira A. Fulton Schools of Engineering.

Applicants are eligible to apply to the program if they have earned a bachelor's degree or master's degree in engineering or a closely related field from a regionally accredited institution.

Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program, or applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. letters of recommendation
4. proof of English proficiency

Additional Application Information

An applicant whose native language is not English must provide proof of English proficiency regardless of their current residency.

Students who have a degree in civil engineering, environmental engineering, construction engineering, or mechanical engineering, or who have an engineering degree other than those listed, may be admitted with deficiencies as identified by the sustainable engineering faculty. If the applicant does not have an undergraduate degree in any of these programs, additional requirements may be necessary based on the applicant's background, including sufficient courses in mathematics that include calculus, differential equations and linear algebra. A faculty committee determines which required courses are needed on a case-by-case basis.

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.

Attend online

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may [view the program's ASU Online page](#) for program descriptions and to request more information.

Career opportunities

Sustainable engineering graduates can pursue careers as:

- corporate social responsibility sustainability professionals
- sustainability consultants
- sustainability managers
- water engineering specialists

Contact information

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