Environmental and Resource Management (Water Management), MS

ESERMWTMS

Program description

Degree awarded: MS Environmental and Resource Management (Water Management)
The MS program in environmental and resource management provides students who have a background in the sciences, engineering, management, natural resources management, environmental health and safety, or other affiliated areas with the regulatory and technical background they need to mitigate the environmental impact of industrial sources of pollution, ensure compliance with environmental regulations, and manage and preserve engineered and natural ecosystems.

The concentration in water management focuses on issues of water quality, supply, treatment, reclamation, conservation and augmentation strategies. This program is especially appropriate for people who work in municipal, state, federal and tribal water and environmental agencies; water providers to urban and agricultural users; people who work in manufacturing and mining industries; as well as those interested in sustainable development in this country and around the world.

At a glance

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

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 Science, BA

Environmental Science, BS

Environmental and Resource Management, BS

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.

Degree requirements

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

Required Core (6 credit hours)
ERM 502 Regulatory Framework for Toxic and Hazardous Substances (3) or ERM 527 Environmental/Resources Regulations Concepts (3)
ERM 503 Principles of Toxicology (3) or ERM 506 Chemistry of Hazardous Materials (3)

Concentration (9 credit hours)
ERM 523 Soils and Groundwater Contamination (3)
ERM 533 Water and Wastewater Treatment Technologies (3)
ERM 535 Water Law and Policy (3)

Electives or Research (9--15 credit hours)

Culminating Experience (0--6 credit hours)
ERM 593 Applied Project (3)
ERM 599 Thesis (6)
portfolio (0)
written comprehensive exam (0)

Additional Curriculum Information
Students choose one of the culminating experiences listed above. Thesis students take nine credit hours of electives or research; applied project students take 12 credit hours of electives or research; and portfolio and written comprehensive exam students take 15 credit hours of electives or research.

Students should see the academic unit for the approved course list for electives or research. Other coursework may be used with the approval of the academic unit.

The thesis and applied project options have an oral defense.

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 U.S. bachelor's or master's degree from a regionally accredited institution or the equivalent of a U.S. bachelor's degree from an international institution that is officially recognized by that country in engineering, physical sciences, mathematics or a similar field.

Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in their first bachelor's degree or in the last 60 hours of their first bachelor's degree program; a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in nine semester hours of graduate coursework from a U.S. institution; or a cumulative minimum GPA of 3.00 (scale is 4.00 = "A") in an applicable conferred master's degree program from a regionally accredited college or university.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. personal statement
4. professional resume
5. two letters of recommendation
6. 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. Applicants should see the Graduate Admission Services website for more information.

Global Launch at ASU offers an online alternative to standardized testing for international students who are seeking admission to ASU but need proof of English proficiency.

If the applicant does not meet the minimum GPA requirements, the application may still be considered. In certain cases, demonstrated aptitude through professional experience or additional postbaccalaureate education is considered.

Unofficial transcripts may be submitted at time of application. If admitted, applicants must then submit official transcripts to ASU Graduate Admission Services.

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.

Application deadlines

Fall

Spring expand

expand

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:

- Apply sustainable development practices and trends to water management systems
- Apply legal principles and concepts as described in environmental laws and regulations in order to manage engineered, industrial and natural water systems
- Apply management, scientific and technical solutions to address water management challenges and problems

Career opportunities

Graduates are employed by industrial operations such as manufacturing and mining industries; federal, state and local environmental and water agencies; environmental firms; utilities; international agencies such as the United Nations and the World Bank; and NGOs.

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 Fulton Schools of Engineering lead to professional licensure.

Contact information

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