

Environmental Geoscience MS

COLLEGE OF SCIENCE AND TECHNOLOGY

Learn more about the Master of Science in Environmental Geoscience.

About the Program

The Department of Earth and Environmental Science offers a two-year MS program in Environmental Geoscience that provides integrated study of the fundamental biological, chemical and physical processes that form the environment. Adopting a holistic view of Earth's systems, its inhabitants and how their interactions facilitate the understanding necessary to develop strategies for a sustainable and prosperous society. Toward that end, environmental scientists use a wide variety of methods such as chemical and structural analyses, description, fieldwork and mapping, geophysical techniques, environmental monitoring and remote sensing, and numerical modeling and physical experiments.

Environmental geoscience studies Earth's natural processes on its surface and in its oceans and atmosphere as well as their interaction with complex societal needs. The Environmental Geoscience MS program includes graduate coursework in Earth science, environmental research, weekly graduate seminars, and research proposal defense leading to completion of a master's thesis. The focus on research in environmental problems produces graduates with a breadth of knowledge in Earth science, skill in conducting scientific research, and excellence in scientific writing and communication so they can address the challenges in the food-water-energy nexus and surficial processes that impact the environment.

During their first term in the Environmental Geoscience MS program, students must confirm a primary research advisor and tentative research project. Profiles of the faculty and their research, as well as links to their personal webpages, are found on the department's website. Students successfully advance through the program by completing geoscience coursework, submitting and defending a research proposal during the second academic term, satisfying a progress report in the third term, and writing and defending a thesis.

Time Limit for Degree Completion: 3 years

Campus Location: Main

Full-Time/Part-Time Status: Full-time status is expected.

Areas of Specialization: Advanced courses and research opportunities are available in:

- Climate science
- Ecohydrology
- Energy resources
- Environmental geochemistry
- Environmental remediation
- Geophysics and remote sensing
- Polar climate and glaciology
- Urban hydrology

Job Prospects: Graduates are accepted into doctoral programs and secure positions in education, industry and government. Students have also used their scientific expertise in environmental law, environmental policy, and community and nonprofit work focused on sustainable and resilient communities.

Licensure/Certification: Licensure is recommended after a minimum of three years of on-the-job training. The Pennsylvania Professional Geologist Licensing Examination is administered by the National Association of State Boards of Geology (ASBOG®), which is the regulatory body for 31 states and Puerto Rico. Iowa and Michigan currently require only the Fundamentals of Geology examination, and 17 states are non-regulatory. For more information, visit https://asbog.org/state_boards.html.

Non-Matriculated Student Policy: Non-matriculated students are allowed to take up to 9 credits before applying to the program.

Financial Opportunities: Students are supported by a combination of Teaching and Research Assistantships, which typically provide a minimum nine-month academic-year stipend and full tuition remission. Summer stipends are also available. Teaching and Research Assistants are expected to devote 20 hours per week to their duties. Teaching Assistants teach labs for non-science, geology and environmental science majors. The duties for Research Assistants are determined by the primary research advisor. Both Teaching and Research Assistantships are awarded competitively. Funding after two years is not guaranteed.

Admission Requirements and Deadlines

Application Deadline:

Fall: January 15

Spring: October 15

For full consideration, applications must be submitted by the deadline. Late applications may be considered on a case-by-case basis. Applicants should target Fall entry as Spring admission is rare.

Program admissions are limited and competitive. Applicants are expected to contact the faculty in their area of interest prior to submitting an application.

APPLY ONLINE to this graduate program.

Letters of Reference:

Number Required: 2

From Whom: Letters of recommendation should be obtained from college/university faculty members familiar with the applicant's academic competence or supervisors familiar with their experience in the field.

Coursework Required for Admission Consideration: Applicants are required to have taken at least two courses in Geology or Environmental Science and one year of college-level Chemistry, Calculus, Computer Science, Physics or Biology to prepare for graduate-level classes and instructing undergraduate majors. Other coursework may be considered on a case-by-case basis through consultation with the prospective advisor.

Bachelor's Degree in Discipline/Related Discipline: A baccalaureate degree, whether a BA or a BS, with a major in Data Science, Environmental Science, Geology, Geoscience, Mathematics, or the natural sciences is required. Given that Environmental Geoscience is an inherently cross-disciplinary field, other preparation may be considered on a case-by-case basis.

Statement of Goals: Identify your specific interest in Temple's MS program, research goals, future career goals, and academic and research achievements.

Standardized Test Scores:

GRE: Optional. Scores may be submitted if available.

Applicants who earned their baccalaureate degree from an institution where the language of instruction was other than English, with the exception of those who subsequently earned a master's degree at a U.S. institution, must report scores for a standardized test of English that meet these minimums:

- TOEFL iBT: 85
- IELTS Academic: 6.5
- PTE Academic: 58
- Duolingo: 110

Program Requirements

General Program Requirements:

Number of Credits Required Beyond the Baccalaureate: 30

Required Courses:¹

| Code | Title | Credit Hours |
|---|--------------------------|--------------|
| Select seven 3-4 credit courses at the 5000 level or higher | | 21-28 |
| Select 1-2 credit courses at the 5000 level or higher as needed | | 7-0 |
| EES 9996 | Master's Thesis Research | 2 |
| Total Credit Hours | | 30 |

¹ The program of study must be designed in coordination with an Earth and Environmental Science faculty advisor, and only one course may be taken outside of the Department of Earth and Environmental Science.

Culminating Event:

Thesis:

The Department of Earth and Environmental Science requires an original research thesis as the culminating project to earn its master's degree. The thesis is evaluated for both scientific content and writing style by a committee of two faculty members and the thesis advisor. Students are required to defend their theses publicly before the academic community.

Contacts

Program Web Address:

<https://cst.temple.edu/research-priorities-departments/departments/department-earth-environmental-science/academics/graduate>

Department Information:

Dept. of Earth and Environmental Science
326 Beury Hall
1901 N. 13th Street
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215-204-8227

Submission Address for Application Materials:

<https://cst.temple.edu/academics/graduate-programs/apply-now>

Department Contacts:

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