

# Geology MS

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## COLLEGE OF SCIENCE AND TECHNOLOGY

Learn more about the Master of Science in Geology.

### About the Program

The Department of Earth and Environmental Science offers a two-year MS program in Geology that entails the study of the Earth and other terrestrial planets. Geologists work to understand earth structure; materials such as minerals, rock, water and other fluids; history; and the processes that can alter planets. Toward that end, they use a wide variety of methods such as chemical analyses, description, fieldwork and mapping, geophysical techniques, numerical modeling and physical experiments.

The Geology MS program includes graduate coursework in Earth and planetary sciences, research, weekly graduate seminars, and research proposal defense leading to completion of a master's thesis. The program's focus on basic understanding of geological processes produces graduates with a breadth of knowledge in the field and skill in conducting scientific research.

During their first term in the Geology 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:

- Environmental geology, including ecohydrology, energy and land degradation, environmental geophysics, groundwater modeling, ice sheet stability and climate change, Karst hydrology, nanomineralogy and urban hydrology.
- Geochemistry, including nanomineralogy, paleontology-fossil provenance, planetary geology, and weathering and diagenesis.
- Sedimentary geology and paleontology, including coastal and aeolian dynamics, ichnology, paleontology-fossil provenance, paleopedology and modern soils, planetary geology and impact studies, and Precambrian geology.
- Structural geology, including geothermal energy and geomechanics.

**Job Prospects:** Graduates secure positions in industry, education and government, and are accepted into doctoral programs.

**Licensure/Certification:** Licensure is recommended after 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®).

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

**Financing Opportunities:** Students are supported by a combination of Teaching and Research Assistantships, which typically provide a 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 and geology 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.

**Coursework Required for Admission Consideration:** Applicants are required to have taken at least five courses in Geology and one year of college-level Chemistry, Calculus, and either Physics or Biology to prepare for graduate-level classes and instructing undergraduate majors.

**Bachelor's Degree in Discipline/Related Discipline:** A baccalaureate degree, whether a BA or a BS, with a major in Geology or a related program in Science or Mathematics is required.

**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 are typically in the 50th percentile or higher in the quantitative and verbal areas.

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

**Resume:** Current resume required.

## Program Requirements

**General Program Requirements:**

*Number of Credits Required Beyond the Baccalaureate:* 30

*Required Courses:*<sup>1</sup>

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
<b>Total Credit Hours</b>		<b>30</b>

<sup>1</sup> 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 to the academic community.

## Contacts

**Program Web Address:**

<https://www.temple.edu/academics/degree-programs/geology-ms-st-geol-ms>

**Department Information:**

Dept. of Earth and Environmental Science  
 326 Beury Hall  
 1901 N. 13th Street  
 Philadelphia, PA 19122-6081  
[eesgrad@temple.edu](mailto:eesgrad@temple.edu)  
 215-204-8227

## **Submission Address for Application Materials:**

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

## **Department Contacts:**

### *Administrative Assistant:*

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### *Admissions:*

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### *Chairperson:*

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