

Geology MS

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 that includes graduate courses in Geology, weekly graduate seminars, qualifying exams, and research leading to a master's 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

Program Requirements

General Program Requirements:

Number of Credits Required Beyond the Baccalaureate: 30

Required Courses:

Code	Title	Credit Hours
Core Courses		
Select courses from the following to total 28 credits:		28
EES 5011	Remote Sensing and GIS	
EES 5042	Coastal Processes	
EES 5101	Structural Geology (Graduate)	
EES 5401	Analytical Methods in Mineralogy	
EES 5402	X-ray Crystallography	
EES 5406	Nanoscience and the Environment	
EES 5434	Ecohydrology	
EES 5454	Introduction to Geophysics	
EES 5461	Low-Temperature Geochemistry	
EES 5462	Advanced Low-Temperature Geochemistry	
EES 5502	Glaciology	
EES 5601	Vertebrate Paleontology and Taphonomy	
EES 5625	Electron Optical Techniques	
EES 5702	Sedimentary Petrology	
EES 5725	Soils and Paleosols	
EES 5801	Quantitative Structural Geo	
EES 5802	Tectonics	
EES 5811	Planetary Geology	
EES 8000	Geology Seminar	
EES 8082	Independent Study Program	
EES 8200	Graduate Geology Seminar	
EES 8411	Advanced Hydrogeology	
EES 8421	Groundwater Modeling	
EES 9993	Comprehensive Examination Prep	
Research Course		
EES 9996	Master's Thesis Research	2
Total Credit Hours		30

Culminating Events:

Comprehensive Examination:

The purpose of the comprehensive examination is to demonstrate breadth and depth of knowledge in the concepts of geological sciences. The exam has written and oral sections. It is taken when the student completes at least 20 credits.

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:

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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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