

Geological Sciences, PhD

LAGEOSCPHD

Explore the processes and dynamics that shape the interiors and surfaces of the Earth and other bodies in the solar system. This is your opportunity to work with world-class faculty on NASA- and NSF-funded projects in state-of-the-art laboratories and in the field on any of the seven continents.

Program description

Degree awarded: PHD Geological Sciences

The PhD program in geological sciences is designed to develop creative scholarship in the terrestrial and planetary geosciences. Students are encouraged to cross subject boundaries and pursue new understandings of Earth and the solar system.

At a glance

- **College/School:** [The College of Liberal Arts and Sciences](#)
- **Location:** [Tempe](#)

Degree requirements

84 credit hours, a written comprehensive exam, an oral comprehensive exam, a prospectus and a dissertation

Required Core (1 credit hour)

SES 502 Exploring SESE Research (1)

Electives or Research (70 credit hours)

Other Requirements (1 credit hour)

SES 501 SESE Colloquium (1)

Culminating Experience (12 credit hours)

SES 799 Dissertation (12)

Additional Curriculum Information

When approved by the student's supervisory committee and the Graduate College, this program allows 30 credit hours from a previously awarded master's degree in a related field to be used for this degree.

Substitutions for courses listed as Other Requirements may be made per department approval.

Admission requirements

Applicants must fulfill the requirements of both the Graduate College and The College of Liberal Arts and Sciences.

Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree, in any 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 admissions application and application fee
2. official transcripts
3. statement of purpose
4. three letters of recommendation
5. 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.

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](#)

Career opportunities

Graduates are prepared for academic and professional careers in geological science fields such as geochemistry, field geology, geomorphology, structure and tectonics, mineralogy and petrology, geophysics, planetary geology, hydrology, volcanology, Earth observation and remote sensing, and related areas, including geoscience education.

Professionals with expertise in geological sciences are in high demand across sectors and industries, including remote sensing, natural resource management, data science, environmental consulting, economic geology (oil and mining industries), hazard and risk assessment, geophysics and planetary science. Coding and numerical modeling skills translate across many domains, even beyond geosciences. Skills in the measurement and analysis of data related to the physics, chemistry and structures of earthly and planetary systems are valuable to businesses and institutions that rely on data-driven strategies to interact with the planet and explore beyond Earth. The doctoral degree in geological sciences is required for careers in post-secondary education and research.

Career examples include:

- data scientist
- environmental consultant
- geologist
- geosciences professor
- instrument builder
- planetary scientist
- program manager
- research scientist

Contact information

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