

# EARTH AND PLANETARY SCIENCES, MASTER OF SCIENCE

## Earth and Planetary Sciences, Master of Science

The Department of Earth and Planetary Sciences invites JHU undergraduates to apply to the one-year MS program.

The program is designed for current JHU students in good academic standing interested in the processes that shape Earth and other planets, and it combines coursework with hands-on research. Building on select upper-level undergraduate courses, students can transition into graduate-level study and earn their master's degree in just one additional year, saving both time and tuition compared to a traditional two-year program.

Students will conduct independent research at the graduate level through the completion of a master's level capstone project, supervised by a faculty advisor in the department.

### Program Fast Facts

Together with their academic advisor(s), students will design a personalized plan of research and study that aligns with their career and research goals. The Department of Earth and Planetary Sciences offers a range of courses relevant to master's-level studies. These courses rotate and evolve in response to current dynamics of the field.

- Duration: 9-12 months
- Mode of Study: In person, at Homewood campus (Baltimore, MD)
- Visa Eligible
- Tuition: Learn more about tuition and fees (<https://krieger.jhu.edu/graduate-admissions/apply/cost-of-attendance/>)
- Credit Requirements: at least 36 credits

12 of these credits can be transferred from undergraduate studies, allowing students to focus on 24 credits as full-time graduate students during the 5th year. These 5th year credits can be a combination of course and research credits (minimum 12 graduate research credits).

With the supervision of a faculty member or program director, students will take a mix of:

- Coursework specific to their field of interest
- Independent Research to develop research and professional skills

This model ensures that every student will graduate with a strong foundation, specialized knowledge, and practical skills for their chosen career path.

### Admissions and Eligibility

Admission is selective and based on academic performance, preparedness, and alignment with program requirements. The application deadline is March 15th.

To apply, please visit the Krieger Graduate School Admissions website (<https://krieger.jhu.edu/graduate-admissions/>), select 'Apply Now'. On the

program page of the application, select the 'Full-Time Graduate Student' option.

For program specific questions, please contact Meghan Avolio ([meghan.avolio@jhu.edu](mailto:meghan.avolio@jhu.edu)) and Jerry Burgess ([jerry.burgess@jhu.edu](mailto:jerry.burgess@jhu.edu)).

### Who Can Apply

Current JHU undergraduates

- EPS B.A. and ENVS B.S. majors in the Department of Earth and Planetary Sciences (EPS) are eligible to apply directly.
- Undergraduate students outside the KSAS EPS department may also apply. In particular, we welcome applications from undergraduate students pursuing their B.A., B.S. or similar, from other related departments at Johns Hopkins University (e.g., physics, chemistry, engineering, computer science, applied math, behavioral biology), if they have the appropriate background and complete prerequisite courses.

### Program Requirements

- Students in this program are required to take 36 credits.
  - 12 of these credits can be transferred from undergraduate studies. Any relevant AS.270.XXX course listed at the 300 level or above, excluding research credits
  - 24 credits taken in the 5<sup>th</sup> year. These credits will be a combination of course and research credits. The exact balance of coursework and research credits will be determined by each student in consultation with the student's EPS advisor.
    - At least 12 credits, in total, must be in the form of independent research or independent study.
    - All courses are expected to be taken at the graduate level (400 level courses or higher).
    - Suggested and required courses:
      - (suggested) Graduate Skills in EPS AS.270.695 (1 credit)
      - (required) EPS Colloquium AS.270.605 (Bromery and Journal Club; 2 credits)

### Timing/Logistics

- During the summer between their undergraduate and graduate studies at JHU, EPS master's students will have the option to take research credits and start their graduate research (to be determined between advisor and mentee).
- Before the first week of classes, each student works closely with their advisor to design a personalized coursework or research schedule. The program director then approves the plan of study.
- By the end of the fall semester, a formal research project proposal must be completed. This will be assessed by their advisor and program director and will include:
  - A detailed review of literature.
  - Proposed work (that is likely underway)
  - A timeline for completion
- By the end of the spring semester, a research thesis must be completed. This includes:
  - Giving a 30-minute research talk at journal club in the first two weeks of April
  - Submitting a single research chapter thesis, that was approved by the advisor and project director, to the library by university deadline (see [homewoodgrad.jhu.edu](http://homewoodgrad.jhu.edu)). The goal is that this thesis

could be turned into a publishable paper. Details of format will vary by field, but it is anticipated that it will include the following:

- Introduction (Background literature review and conceptualization of a research question)
- Methods
- Results (original research)
- Discussion (demonstrating how research fits into the broader literature)
- Conclusion

## **Departmental Advising Commitments**

- Advisor(s) will work with EPS Masters students to design their course of study for both semesters, including 12 credits of research
- Advisor(s) will oversee students' independent research projects
- Advisor(s) will have regular meetings with EPS Masters students
- EPS Masters students will be given office space with other first year PhD students