DOCTOR OF PHILOSOPHY (PHD) DEGREE IN THE FIELD OF EARTH SCIENCE

Program Learning Outcomes for the PhD Degree in the field of Earth Science

Upon completing the PhD degree in the field of Earth Science, students will be able to:

1. Understand the structure and composition of the Earth and Planets, their evolution, and changing the Earth today.
2. Use appropriate computational or analytical techniques in the conduct of research investigations.
3. Demonstrate significant skills in scientific communication, written and oral.
4. Demonstrate peer-reviewed literature, and to write and publish a substantial contribution.

Requirements for the PhD Degree in the field of Earth Science

For general university requirements, please see Doctoral Degrees (ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-doctoral-degrees). All incoming students should have a strong background in physics, chemistry, and mathematics and should have, or should acquire, a broad grounding in fundamental earth science. The department encourages applications from well-qualified students with degrees in the other sciences, mathematics, or engineering. The requirements for the MS and PhD Degrees in earth science are similar, but the PhD demands a significantly higher level of knowledge, research skills, and scholarly independence. Most students need at least two years beyond the bachelor’s degree to complete the MS or four to complete the PhD.

Candidates determine, with their major professor and thesis committee, a course of study following the Guidelines for Advanced Degrees in the Department of Earth Science handbook, distributed to all incoming students. For both degrees, candidates must:

- Complete 20 semester hours of course work at the 500-level and above (or other approved courses), not including research hours
- Pass a written preliminary exam
- Maintain a grade point average of 3.00 (B) or better
- Prepare a written thesis comprised of peer-reviewed publication(s) that represent an original contribution to science
- Defend the research and conclusions of the thesis in an oral examination

Students with a bachelor’s degree and department approval may work directly toward the PhD, in which case the course of study is equivalent to that required for both degrees; performance on the examinations and the thesis, however, should be at the level required for the PhD. Because the graduate programs require full-time study and close interaction with faculty and fellow students, the department discourages students from holding full (or nearly full) time jobs outside the university. Outside employment must be approved by the chair.