

LEARNING OUTCOMES: GEOLOGY, PHD

Learning Outcomes for the degree of Doctor of Philosophy in Geology

1. All graduate students will have a broad understanding of basic foundational theories and phenomena that describe the makeup and functioning of the Earth, across the fields of geology and geophysics. Students should have mastered all areas at the level of GEOL 107 and 208, and should have mastered areas close to their area of specialty at the level of the core classes (e.g., 400-level) of our undergraduate curriculum.
2. All graduate students will have a high level of expertise(beyond the level of our undergraduate program)in their specialized research area within geoscience and any related sciences, and the ability to apply this expertise, along with theoretical and technical skills, to address new scientific questions in that area.
3. All graduate students will have knowledge of the recent development of their specialized area of research and current major research directions and questions.
4. Ph.D. students will have mastery of their specialized area of research and the ability to identify new research directions that will advance the area of research.
5. All graduate students will have the ability to work independently to develop a research project and creatively answer the questions central to the project.
6. Ph.D. students will have the ability to identify and formulate a research problem, demonstrate the value of its solution in advancing knowledge, and develop a creative approach toward solving that problem.
7. All graduate students will have ethically responsible and effective communication skills, written and verbal, at a professional scientific level.