GEOLOGY - DOCTOR OF PHILOSOPHY (PHD)

Geological sciences is a research-oriented department affiliated with a number of research institutes and research centers, including the Cooperative Institute for Research in Environmental Sciences (CIRES), the Institute of Arctic and Alpine Research (INSTAAR), the Laboratory for Atmospheric and Space Physics (LASP), the Museum of Natural History, the Center for Astrobiology and the Energy and Minerals Applied Research Center (EMARC). Related areas of study include geography, astrophysical and planetary sciences, atmospheric and oceanic sciences, chemistry, physics, geophysics, microbiology, ecology and evolutionary biology. The GEOL program also participates in certificate programs in geophysics (https://www.colorado.edu/geophysics/geophysics-graduate-certificate/) and oceanography (https://www.colorado.edu/atoc/certificate/) and a subplan in hydrological sciences (https://www.colorado.edu/program/hydrosciences/). Degree programs for incoming graduate students are individually designed according to research efforts of the faculty. It is highly recommended that students locate a faculty member whose research interests most closely match their own.

For additional details, visit the department's Graduate Degree Programs (https://www.colorado.edu/geologicalsciences/academic/graduate-degree-programs/) webpage.

Requirements

Admission & Prerequisites

Students applying for admission are evaluated holistically, including their undergraduate preparation, personal statement, research interests and letters of recommendation. The Graduate Record Examination is not required. Each student acquires a primary advisor and an advisory committee that provides guidance throughout the degree program.

Entering students normally have completed at least 24 credit hours of basic courses in geological sciences and two semesters each of chemistry, physics and calculus. In some cases, undergraduate preparation in other fields of science, mathematics or engineering may substitute for part of the 24 hours in geological sciences.

Program Requirements

Candidates for the doctoral degree must complete at least 30 credit hours in coursework numbered 5000 or above, of which at least 20 must be taken at CU Boulder. The only specifically required courses are GEOL 5101 and GEOL 5102, Introduction to Geological Sciences Faculty (1 credit each). In addition to coursework, candidates must take a total of at least 30 credit hours of doctoral dissertation (GEOL 8990), with not more than 10 of these taken before the semester during which the comprehensive examination is passed, and not more than 10 taken in any one semester.

Students interested in graduate work in the geological sciences should carefully read the detailed information regarding admission, registration, and degree requirements on the department's Information for Prospective Graduate Students (https://www.colorado.edu/geologicalsciences/academic/prospective-graduate-students/) webpage.

Learning Outcomes

By the completion of the program, students will be able to: