The Department of Earth Sciences is one of the foremost centres for the study of earth sciences in Canada. A broad spectrum of research is carried out by its professors and graduate students and, over the years, they have made significant contributions across a spectrum of research, e.g. new mineral resources and minerals, including Carletonite; a new species of dinosaur; new awareness of the geologic record of environmental change in the rapidly changing Canadian Arctic; and increased integration of earth sciences and applied geophysics.

Graduate students in the department conduct fieldwork spanning a wide range of settings, including both urban and remote regions in Canada and internationally; and, on land, beneath the surface in mine environments, or aboard research vessels studying lake and ocean sediments. Topics range widely too, including many aspects of Earth’s development through geological history, climate change and/or mineral/petroleum resources; analysis of global seismic data related to earthquake and seismic-risk assessment; and development of new geophysical technology related to earth resources or risk assessment. Many students collaborate with industry and government scientists in mineral exploration, the petroleum industry or in urban or industrial water resource programs. Throughout graduate work, there is ample opportunity to master field and laboratory techniques, with laboratory analyses including an array of state-of-the-art tools related to microscopy, radiogenic isotopes, elemental and mineralogical analyses, geophysics, hydrology and geochronology.

Carleton offers MSc and PhD degree programs in Earth Sciences, as well as a specialization in Chemical and Environmental Toxicology. Our graduate programs fall under the auspices of the Ottawa-Carleton Geoscience Centre, a joint research initiative of Carleton University and the University of Ottawa. Students have the opportunity to enrol in courses at both universities and benefit from the pooling of academic resources and research instrumentation in earth sciences from both institutions. Graduate students are enrolled in the university where their faculty supervisor holds an appointment.

The large size of the centre and its location in the nation’s capital offer unique opportunities for collaborative research projects with the federal government, and in particular the Canadian Museum of Nature and the Geological Survey of Canada.

DEGREES OFFERED
MSc, PhD

CAREER OPTIONS
Our students have found fulfilling careers in government departments, private industry and as teaching/research academics here in Canada and internationally.

FALL APPLICATION DEADLINE
March 1, to be eligible for funding

ADMISSION REQUIREMENTS
MSc: An honours BSc degree, with at least a B+ in geology or a related discipline.

PHD: An MSc degree in earth sciences or a related discipline.