MAJOR IN GEOLOGY

Geology is a modern, dynamic and diverse science that involves investigating the composition and evolution of Earth and other planetary bodies.

Geologists and Earth scientists study the Earth, including its chemical, physical and biological evolution. Our programs teach students how to analyze Earth materials, probe the Earth from surface to core and model the processes that produced and shape its oceans and continents. The Ottawa region is a natural laboratory where students investigate resources (water, metals, minerals, petroleum), hazards (earthquakes, tsunamis, eruptions, landslides) and a variety of geological environments.

The Department of Earth and Environmental Sciences offers programs in geology and, along with the Department of Physics, a program in geology-physics. These programs balance field-based learning with theoretical and analytical investigations directly relevant to the needs of society. The final year involves an independent research project or equivalent units (credits) in advanced courses in the discipline.

The honours requirements meet the professional accreditation requirements of the Association of Professional Geoscientists of Ontario and l'Ordre des géologues du Québec.

This program is offered in English and in French.

Program Requirements

The table below includes only the discipline-specific courses. Please refer to the Academic Regulations (https://www.uottawa.ca/about-us/policies-regulations/academic-regulations/b-2-program-studies/) for information on the Honours bachelor's with double major and the Honours bachelor's with major and minor.

Co-operative education is available when taken as part of an honours degree.

The French immersion stream is available when taken as part of an honours degree.

Requirements for this program have been modified. Please consult the 2025-2026 calendars (https://catalogue.uottawa.ca/en/archives/) for the previous requirements.

Compulsory courses at the 1000 level		
BIO 1131	Introduction to Organismal Biology	3 Units
CHM 1311	Principles of Chemistry	3 Units
EVS 1101	Introduction to Environmental Science	3 Units
GEO 1111	Introduction to Earth Systems	3 Units
GEO 1115	Introduction to Earth Materials	3 Units
MAT 1330	Calculus for the Life Sciences I	3 Units
MAT 1332	Calculus for the Life Sciences II	3 Units
PHY 1121	Fundamentals of Physics I	3 Units
PHY 1122	Fundamentals of Physics II	3 Units
Compulsory courses at the 2000 level		
GEO 2163	Introduction to Mineralogy	3 Units
GEO 2165	Sedimentology and Stratigraphy	3 Units
GEO 2321	Structural Geology and Tectonics	3 Units
Optional courses		
6 optional course units from:		6 Units
GEO 2020	Field Studies I	
GEO 2113	Paleontology	
GEO 2166	Oceanography	
GEO 2334	Quaternary Geology and Climate Change	
12 optional course units in geology (GEO) at the 3000 or 4000 level		12 Units
6 optional course units in geology (GEO) at the 4000 level		6 Units
Total:		**60 Units**