HONOURS BSC 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 geologyphysics. 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

Co-operative education is available with this program.

The French immersion stream is available with this program.

Requirements for this program have been modified. Please consult the 2024-2025 calendars (http://catalogue.uottawa.ca/en/archives/) for the previous requirements.

Compulsory Courses at the 1000 level

BIO 1130	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 2020	Field Studies I	3 Units		
GEO 2163	Introduction to Mineralogy	3 Units		
GEO 2165	Stratigraphy and Sedimentation	3 Units		
GEO 2321	Structural Geology and Tectonics	3 Units		
Compulsory Courses at the 3000 level				
GEO 3163	Igneous Petrology	3 Units		
GEO 3164	Metamorphic Petrology	3 Units		
GEO 3167	Mineral Deposits	3 Units		
GEO 3342	Introduction to Hydrogeology	3 Units		
GEO 3920	Field Studies II	3 Units		
Optional cou	Irses			

3 course units from:		3 Units
	al Chemistry: Introduction to the ular Properties of Matter	
CHM 2353 Descri	ptive Inorganic Chemistry	
3 course units from:		3 Units
GEO 2113 Paleor	ntology	
GEO 2166 Ocean	ography	
GEO 2316 Introdu	uction to Climate Science	
GEO 2334 Quater	mary Geology and Climate Change	
3 course units from:		3 Units
GEO 2352 Geosc	ience Data Analysis	
MAT 2377 Probal	bility and Statistics for Engineers	
MAT 2379 Introdu	uction to Biostatistics	
3 course units from:		3 Units
GEO 3165 Carbor	nate Sedimentology	
GEO 3166 Silicicl	astic Sedimentology	
3 course units from:		3 Units
GEO 3191 Applie	d Geophysics	
GEO 3382 Geoch	emistry	
One option from the	following:	9 Units
Option 1: Honours P	roject	
GEO 4010 Honou	irs Project	
Option 2: Honours P	roject Substitution	
3 optional course level	units in Geology (GEO) at the 4000	
6 optional course 4000 level	units in Geology (GEO) at the 3000 or	
12 optional course u 4000 level	nits in geology (GEO) at the 3000 or	12 Units
	its in biology (BIO), chemistry (CHM), or physics (PHY) at the 2000, 3000 or	3 Units
Elective Courses		
Faculty of Education	nits from the Faculty of Arts, the a, the Faculty of Law, the Faculty of ne Telfer School of Management ¹	12 Units
15 elective course un	nits	15 Units
Total:		120 Units
Nata (a)		

Note(s)

A language course at the 1000 or 2000 level is strongly recommended.

This program can satisfy the academic requirements of the Association of Professional Geoscientists of Ontario. Check APGO's website for current eligible courses which can be used for accreditation.