HONOURS BSC IN GEOLOGY

The Department of Earth and Environmental Sciences offers programs in geology and, in co-operation with the Department of Physics, also offers a program in geology-physics. The Department is part of the Ottawa-Carleton Geoscience Centre, and its research areas include pre-cambrian studies, tectonics, resource geology, northern studies, environmental geoscience and geochemistry.

Geology studies the composition and evolution of Earth and of other planetary bodies. The discipline extends into many areas: mineralogy, petrology, palaeontology, sedimentology, environmental geology, economic geology, geochemistry, structural geology, and geophysics.

Thus, geologists study matter and geological processes in all their diversity, from atoms and crystals to mountain ranges and the dynamics of the entire planet. The scientific methods used are equally diverse (field studies, instruments to probe the Earth's depths, microscope examination of minerals and fossils, elemental and isotopic analysis, experimental study of geochemical systems, and computer simulation of geological processes).

Although many program options are offered, students are encouraged to take the Honours B.Sc. in Geology or Geology-Physics, which allows them to meet the accreditation requirements of professional bodies and practice as geoscientists.

In first year, students increase their knowledge of mathematics, physics, chemistry, and biology. Later, they complete several geology courses, which consist of lectures, problem-solving assignments, laboratory work and field excursions.

This program is offered in English and in French.

Program Requirements

Co-operative education is available with this program.

The extended French stream is available with this program.

BIO 1130  Introduction to Organismal Biology  3 Units
CHM 1311  Principles of Chemistry  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 1221  Fundamentals of Physics I  3 Units
PHY 1222  Fundamentals of Physics II  3 Units
3 course units from:  3 Units
CHM 2330  Physical Chemistry: Introduction to the Molecular Properties of Matter  3 Units
CHM 2353  Descriptive Inorganic Chemistry  3 Units
GEO 2100  Field Studies I  3 Units  3 Units
3 course units from:  3 Units
GEO 2113  Paleontology  3 Units
GEO 2166  Oceanography  3 Units
GEO 2334  Quaternary Geology and Climate Change  3 Units
GEO 2163  Introduction to Mineralogy  3 Units
GEO 2164  Analytical Methods in Mineralogy  3 Units
GEO 2165  Stratigraphy and Sedimentation  3 Units

Note(s)

1. 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.

This message is intended for students registered in the Faculty of Science. If the components of your program of study require common compulsory courses, you will have to replace the units as follows:

1. 1000-level courses must be replaced with elective course units;
2. 2000-level courses and above must be replaced with optional course units from either discipline at the same level or above.

Please note that all programs in the Faculty of Science require a minimum of 12 elective course units from the Faculty of Arts, the Faculty of Education, the Faculty of Law, the Faculty of Social Sciences or the Telfer School of Management. Once you have decided on the replacement courses, please inform the Office of Undergraduate Programs of the Faculty of Science by email at infosci@uOttawa.ca so that we may amend your Academic Advisement accordingly.