Earth Sciences
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Earth Sciences students have a natural curiosity about the Earth and a desire to find, invent or create things that help people, improve our communities and better our environment. Students use principles from math, chemistry, physics and biology to conceptualize and solve problems as well as to design and complete complex projects. The Earth Sciences program emphasizes experiential learning in the form of numerous field trips and field schools where students obtain valuable transferable skills. Students use knowledge gained in lectures and labs to map the distribution of rocks and sediments, identify geological environments and natural hazards, characterize potential resources and reconstruct geologic histories. These skills can be applied to real world problems such as resource development, remediation and urban planning.

Program Options
There are two main streams in the department - Geology and Environmental Geoscience, each leading to the ability to register as a Professional Geoscientist in BC. In Geology, coursework emphasizes mineralogy, petrology, structural geology and resource geology. In Environmental Geoscience, coursework centres on environment, water, Earth surface processes, natural hazards and engineering geoscience. Students may also pursue a joint major/honours program with Chemistry.

Co-op Education
Students with 90 credits or less may apply to SFU’s Co-op program, which provides opportunities for students to explore careers and enrich their educational experience via three to four paid, full-time work semesters related to their academic field. Students may work locally, nationally and internationally. Past placements for Earth Sciences students have included: BC Hydro, BC Ministry of Energy and Mines, Copper Mountain Mining and Minetec.

Sample Careers
Listed below are a few industries that rely heavily on Earth Sciences graduates.

- Environmental, geotechnical and industrial labs
- Mining, petroleum, natural gas companies
- Energy sector, natural resources, transportation and public utilities management
- International aid organizations, non-profit organizations, consulting firms
- Parks and recreation organizations, travel and tourism agencies
- Water and waste treatment plants
- Land/resource analysis and management and urban planning for municipalities

Essential websites
sfu.ca/earth-sciences/people/advisors.html
sfu.ca/earth-sciences
sfu.ca/admission
sfu.ca/coop

“Students who enjoy and excel in a wide range of the sciences should consider Earth Sciences. To study earth as a whole, we integrate all of the scientific principles and apply them over a wide range of space and time scales – from the subatomic to the light year and microsecond to billions of years – in both the laboratory and the real world.”

– Dr. Glyn Williams-Jones, Associate Professor, Earth Sciences.

sfu.ca/science

Further Information
Student info, academic calendar, registration   students.sfu.ca
Science advising   sfu.ca/science/undergrad/advising

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