What is a Queen’s Geological Engineer? A professional with an international reputation for designing and implementing sustainable engineering solutions to human needs, involving complex and changing Earth systems, processes & materials

What is Geological Engineering? Geological Engineering utilizes a solid base of geology, physics, mathematics, applied soil & fluid mechanics, economics, field methods & applied mathematics. Geo-Eng grades excel in four-dimensional visualization, logical thinking and systems design & framework. Design problems are always challenging & often open-ended, involving conceptual & quantitative modeling, theoretical engineering, complex real systems & their interactions with human infrastructure. Geo-Eng design includes research, field work, data collection, in situ measurement, lab study, modelling & computational analysis, design & implementation

Who is a Geological Engineer? A Geo-Engineer operates both on Earth and in space, exploring the oceans & oceans beneath, the earth’s crust & atmosphere. They are trained in the fundamental geophysical and geothermal sciences to geoscience and engineering principles. Geo-Engineers are at home in the field, in the office, in the lab or in the boardroom.

Careers in Geological Engineering

Common 2nd Year Program

- The 2nd year core is essentially common amongst the program options.
- A solid foundation in mathematics, fundamental geology and field methods, chemistry.
- Physics and basic engineering principles.
- Applied Geophysics Stream
- Core of geological sciences, physics, mathematics and electrical engineering.
- Emphasis on the application of geophysics to the search for and extraction of geothermal fossil fuel resources and sites to site investigations.
- Geo Environmental Engineering Stream
- Emphasis on the application of engineering and geology to environmental problems such as: Detection, prevention and remediation of groundwater contamination.
- Site selection and design of waste containment facilities.
- Mineral and Energy Exploration Stream
- Application of engineering and geological principles to the exploration for and extraction of mineral and energy resources.

In a word

Geo-Engineering: Stream

- Emphasis on the role of geological studies in the selection and investigation of sites for engineering works and the design of each and every structure.

Queen’s is an equal opportunity university accredited by the Canadian Engineering Accreditation Board. All information is subject to change. For a complete set of Undergraduate program requirements, visit www.queensu.ca/geoeng

For information on research, graduate programs & more, contact:

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