Why GRADUATE STUDIES in GEOLOGICAL SCIENCES?

Geoscientists and geological engineers interpret the natural world. They bring methods such as geophysics, geochemistry, geobiology and field geology together to understand the modern and ancient Earth. Clues concealed in rocks and minerals, fluids and fossils, mountains and sediments, glaciers and volcanoes are marshaled to understand and explain the Earth system at all scales. Managing water, mineral and energy resources, designing sustainable strategies for infrastructure and industrial growth, and coping with natural and anthropogenic hazards facing increasing global populations, including climate change, all depend on a deep understanding of natural processes.

“Why QUEEN’S? As a Master’s student in Geological Science you are part of one of the most research intensive universities in Canada. Our research program is internationally renowned with a wide range of research activities in all of the major specialization areas of geological science. As well, students are able to work in first-rate facilities with world-renowned scientists and research engineers, and have opportunities to collaborate with industrial leaders and engage in extensive fieldwork on six continents, making our program truly a world-class experience. Students can also collaborate with other departments at Queen’s, including Mining, Environmental Studies, Chemistry and Biology as well as other institutions like RMC.

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Program STRUCTURE

The Master’s of Geological Sciences is offered in both a 1-year and 2-year method of completion:

- Master of Science in Applied Geology Method I (1 year): 6 term length courses and a project or 8 term length courses only.
- Master of Science Method II (2 years): 4 term length courses and thesis.

RESEARCH Areas

- Economic Geology & Mineral Exploration
- Petrology & Structural Geology
- Sedimentology, Sedimentary Geochemistry & Paleobiology
- Geophysics and Geochronology
- Applied Geoenvironmental Sciences & Geotechnology

We encourage you to identify an area of research interest and contact a potential supervisor before applying.

Visit the Geological Sciences website to read faculty profiles and learn more about faculty members’ research areas. When you find a faculty member with similar research interests to yours, contact him/her and tell them about your interest in graduate work and related experience.
What Will I Learn?

- Knowledge and technical skills
- Effective communication skills in multiple forms for diverse audiences
- Information management: prioritizes, organizes, and synthesizes large amounts of information
- Time management: meets deadlines and manages responsibilities despite competing demands
- Project management: develops ideas, gathers information, analyzes, critically appraises findings, and acts on conclusions
- Creativity and innovation
- Persistence
- Independence and experience as a collaborative worker
- Awareness, an understanding of sound ethical practices, social responsibility, responsible research and cultural sensitivity
- Professionalism in all aspects of work, research, and interactions
- Leadership: initiative and vision
- Leading people and discussions

Where Can I Go?

A Master’s degree in Geological Sciences can take your career in many directions. Many of our MSc students choose to continue their academic inquiry with a PhD. Our Master’s students are equipped with a strong foundation for careers in:

- Academia and research
- Mineral and oil exploration
- Mining and hydrocarbon extraction
- Policy analysis
- Surface and underground construction
- Environment assessment
- Protection and rehabilitation
- Resource management
- Taking time to explore career options, build experience, and network can help you have a smooth transition to the world of work after graduation.
Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
- Bachelor degree in one of Geological Sciences, Geological Engineering, Mining Engineering, or Civil Engineering. Degrees in fields such as Biology, Chemistry, Physics, Environmental Sciences, or Geography are seriously considered, but may require additional Geology courses.
- Grade requirements: B average.

ADDITIONAL REQUIREMENTS
- If English is not a native language, prospective students must meet the English language proficiency requirements in writing, speaking, reading, and listening. The following minimum scores are required: (1) TOEFL iBT: Writing (24/30); Speaking (22/30); Reading (22/30); Listening (20/30). Applicants must have the minimum score in each test as well as the minimum overall score, or (2) IELTS: 7.0 (academic module overall band score and a 7.0 for each test band), or (3) PTE Academics: 65, or (4) CAEL CE -70 (minimum overall score).

KEY DATES & DEADLINES
- Application due: February 1st for September admission.
- Notification of acceptance: Normally 4 weeks after the full application has been received.

Before you start your application, please review the Graduate studies application process.

What about FUNDING?

M.Sc. students in Geological Sciences receive minimum funding of $21,000 per year. This basic funding package includes teaching assistantships.

Apply for external funding from OGS, NSERC and other sources. Queen's will automatically issue a one time $5,000 top-up to Masters winners of federal government tri-council awards. For more information, see the School of Graduate Studies' information on awards and scholarships.