Graduate Studies FAQs

How do I use this map?

Whether you are considering or have embarked on graduate studies at Queen’s, use this map to plan for success in five overlapping areas of your career and academic life. The map helps you explore possibilities, set goals and track your individual accomplishments. Everyone’s journey is different — the guide offers options for finding your way at Queen’s and setting the foundation for your future. To make your own customized map, use the online My Grad Map tool.

Where can I get help?

Queen’s provides you with a broad range of support services from your first point of contact with the university through to graduation. Ranging from help with academics and careers, to physical, emotional, or spiritual resources — our welcoming environment offers the programs and services you need to be successful, both academically and personally. Check out the SGS HABITAT for available resources.

What is the community like?

At Queen’s, graduate students from all disciplines learn and discover in a close-knit intellectual community. You will find friends, peers and support among the graduate students enrolled in Queen’s more than 130 graduate programs within 50+ departments & research centres. With the world’s best scholars, prize-winning professional development opportunities, excellent funding packages and life in the affordable, historic waterfront city of Kingston, Queen’s offers a wonderful environment for graduate studies. Queen’s is an integral part of the Kingston community, with the campus nestled in the core of the city, only a 10-minute walk to downtown with its shopping, dining and waterfront. For more about Kingston’s history and culture, see Queen’s University’s Discover Kingston page.

Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS

- Master’s degree in Geological Sciences or Geological Engineering, Mining Engineering, or Civil Engineering are acceptable. Degrees in related fields such as Biology, Chemistry, Physics, Environmental Sciences or Geography are considered, but may require additional Geology courses.

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 School of Graduate Studies requires the following minimum scores: TOEFL (paper-based): 550, (internet-based): 213, IELTS: 6.0 (accredited and professional test results may also be accepted, based on your overall band score), or (3) PTE: 65 (academic module overall band score), or (4) CAE: 5.5.

KEY DATES & DEADLINES

- Application deadline: February 1 for September admission.
- Notification of acceptance: Typically, 4 weeks after the full application has been received.

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

What about FUNDING?

The level of financial support consequently varies among graduate students in the Department, with a guaranteed minimum level of $23,000 for PhD students. As part of the minimum funding package, you may serve as a Teaching Assistant. You are encouraged to apply for external funding from OGS, NSERC and other sources. Queen’s will automatically issue a $10,000 top-up award to winners of federal government tri-council awards for PhD studies. For more information, see the School of Graduate Studies’ information on awards and scholarships.

Why GRADUATE STUDIES in GEOLOGICAL ENGINEERING?

Geological Engineering is the application of geological knowledge to working with earth materials – whether for sustainable development of resources including water, oil, gas and minerals; for construction of projects on, in or of soil and rock, or to safeguard the public from geohazards. At Queen’s, students in these fields will be exposed to geology from the field to the laboratory scale, and to analysis and decision-making in Earth Sciences, employing multiple field trips, and utilizing world-class labs for chemical and physical characterization of Earth materials, and numerical modelling of their behaviour.

Graduate students and their work are an important part of an ongoing research process that provides the community with ways of understanding natural, cultural, imaginative, social and technological phenomena.

Why QUEEN’S?

As a PhD student in Geological Engineering at Queen’s 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 engineering.

The Department of Geological Sciences and Geological Engineering provides opportunities for advanced studies and research in the Earth Sciences. Faculty interests span disciplines in Applied Geoenvironmental Sciences and Geotechnique, Geophysics and Geochronology; Economic Geology and Mineral Exploration; Petrology and Structural Geology; Sedimentary Geology; Geochemistry and Paleobiology; and Mine engineering and industrial geology. With high-tech geology and geophysics tools, geomechanics computing tools and Queen’s facilities for research in the Earth Sciences, our graduate students have the opportunity to engage in cutting-edge geoscience and geomatics research.

RESEARCH Areas

With high-tech geochronology and geophysics labs, geomechanics computing tools and Queen’s facilities for research in the Earth Sciences, our graduate students have the opportunity to engage in cutting-edge geoscience and geomatics research. As well, students collaborate with industrial partners, government laboratories and surveys, academic institutions world-wide and engage in extensive fieldwork on six continents, making our program truly a world-class experience. Students can avail themselves to opportunities to collaborate with other departments at Queen’s, including the Geological Engineering Centre at Queen’s and RMC, Mining, Environmental Studies and Civil Engineering.

Program Structure

PhD (4 years): Required to take a minimum of four term length graduate courses (or equivalent) beyond the Master’s degree course requirement and thesis.

I wanted a challenge and saw geomatics engineering as the answer; it would provide that challenge while simultaneously providing me an opportunity to use my structural engineering background. I came to Queen’s for my Masters, which developed into a PhD candidacy, and I haven’t looked back since.”

— Jeffrey Oke, PhD

DEPARTMENT OF GEOLOGICAL SCIENCES & GEOLOGICAL ENGINEERING

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Geological Engineering PhD MAP *

DOCTOR OF PHILOSOPHY (PhD)

YEAR I

ACHIEVE YOUR ACADEMIC GOALS

• Key priorities include your relationship with your supervisor, forming your research committee, coursework and comprehensive exams.
• Meet early with your supervisor to set expectations and discuss roles, responsibilities, program requirements, resources, research occupational goals, timelines, and any required accommodation plans.
• Look to Student Academic Success Services for a variety of supports.
• Top priorities include completing your comprehensive examination and pursuing substantive research.
• Set up regular meetings with your supervisor to discuss progress and obstacles to timely completion.
• Find your way through the academic process with the help of Expanding Horizons and the SES Habitat.
• Seek experiential/professional development opportunities.

YEAR II

• Continue to meet regularly with your supervisor. Review research progress, and write your dissertation.
• Check out the SES Dissertation Boot Camp or Dissertation on the Lake.
• Use conference presentations to create, discuss, and explore ways to disseminate research findings. Learn from the Expanding Horizons Publishing workshop.
• Begin discussion of potential thesis defense examiners.

YEAR III

• Plan date of thesis submission for examination.
• Present your research at conferences and work with supervisor to prepare for defense.
• Review submission and examination guidelines.
• Secure necessary oral defence accommodations.
• Discuss career pathways, references letters, and publication options with your supervisor.

YEAR IV & TRANSITIONING

• Continue to attend conferences and connect with scholars in your field and with community partners.
• Continue public outreach through social media and the Queen’s Media Centre.
• Attend a major conference in your field, such as Canadian Geotechnical Society Annual Meeting.
• Practice articulating the skills you have been developing in settings outside the university, such as casual conversation, networking, and interviews.
• Get help from a Career Services workshop.
• Prepare for work or studies in a multi-cultural environment by taking QHIC’s Intercultural Competency Certificate.

WHAT WILL I LEARN?

A graduate degree in Geological Engineering can equip you with valuable and versatile skills, such as:

• Knowledge and technical skills
• Effective communication skills in multiple forms for diverse audiences
• Information management: prioritize, organize and synthesize large amounts of information
• Time management: Meet deadlines and manage responsibilities despite competing demands
• Project management: develop ideas, gather information, analyze, critically appraise findings, draw and act on conclusions
• Creativity and innovation
• Perserverance
• Independence and experience as a collaborative worker
• Awareness of responsible research and ethical practices, social responsibility, responsible research and cultural sensitivity
• Professionalism in all aspects of work, research, and interactions
• Leadership: take initiative and vision leading people and discussion

WHERE CAN I GO?

A PhD in Geological Engineering can take your career in many directions. In Canada, less than 40% of all PhDs will work in post-graduate education – the majority will work in industry, government, or non-profits. Graduates from the Geological Engineering PhD program have found careers within:

• Academia and Research
• Consulting
• 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.

* This map is intended to provide suggestions for activities and careers, but everyone’s abilities, experiences, and constraints are different. Build your own Grad Map using our online My Grad Map tool.