

Geological Sciences MSc Map

Applying to and Navigating Graduate Studies

GRAD MAP FOR MSc STUDENTS 

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.

"The Masters of Science program at Queen's has been vital in setting and achieving my career goals. The geological skills and research experience acquired using cutting-edge technology in different aspects of geosciences open doors to numerous opportunities across wide range of industries globally"
- Fredrick Nwasike, MSc

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.

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 them and tell them about your interest in graduate work and related experience.

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

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

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



GRADUATE STUDIES AND POSTDOCTORAL AFFAIRS

Geological Sciences MSc

MASTER OF SCIENCE (MSc)



GETTING STARTED

INTERMEDIATE STAGE

WRAPPING UP

ACHIEVE YOUR ACADEMIC GOALS

- Start with key priorities like developing your relationship with your supervisor, forming your committee, and doing your coursework.
- Find your way through the academic process with help from departmental and [School of Graduate Studies and Postdoctoral Affairs](#) professional development workshops, the department Grad Chair, and the [SGSPA website](#).

- Complete your coursework; begin to research and write your thesis.

- Complete and defend your thesis.

MAXIMIZE RESEARCH IMPACT

- Start to think about the audiences for your research.
- If you will be continuing graduate studies, apply for NSERC and OGS funding.

- Attend or present at a graduate conference. Ask your supervisor for suggestions.
- Consider participating in the [3 Minute Thesis \(3MT\)](#) competition.
- Expand your research audience through social media.

- Consider publication options for your research.
- Attend a major conference in your field, such as the [International Conference on Geology and Geoscience](#).
- Set up a meeting with the School of Graduate Studies and Postdoctoral Affairs for a [Grad Chat](#) to discuss your research interests.
- Consider putting an article in [The Conversation](#).

BUILD SKILLS AND EXPERIENCE

- Consider positions in student services, the SGPS, or media outlets like the Queen's Journal, CFRC, and the SGSPA Blog. Look in the [AMS Clubs Directory](#) for more ideas.
- Serve on departmental or university committees. Talk to the Joliffe Club (graduate student society) for tips on getting involved.
- Check out professional development workshops from the School of Graduate Studies and Postdoctoral Affairs.

- Start keeping an eportfolio of your skills, experiences, and competencies.
- Use a Research Assistant or Teaching Assistant position to develop your research or teaching skills.
- For help with teaching, get support from the [Centre for Teaching and Learning](#). Enrol in SGS902 or the PUTL Certificate for more professional development in teaching and learning.

- 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.
- Check out opportunities for extra training through CTL, SGSPA, [MITACS](#), or other sources to boost your skills.

ENGAGE WITH YOUR COMMUNITY

- Explore how you can connect with your community through experiential opportunities on- and off-campus.
- Consider volunteering with different local community organizations, such as [Martha's Table](#), or [Loving Spoonful](#).

- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.
- Prepare for work or studies in a multi-cultural environment by taking the Intercultural Awareness Training Certificate hosted by QUIC and FDISC.
- If you are an international student interested in staying in Canada, consider speaking with an [International Student Advisor](#).

- Do some targeted networking with people working in careers of interest, through [Queens Connects](#) on LinkedIn, the [Queen's Alumni Association](#), professional associations, and at conferences. Get help from a Career Services workshop.
- Consider joining professional associations like the [Geological Association of Canada](#).

LAUNCH YOUR CAREER

- Finding a career that fits starts with knowing yourself. Get help by taking a [Career Services workshop](#) or meeting with a career educator and coach.
- Start reading publications like [University Affairs](#) and the [Chronicle of Higher Education](#). Browse non-academic labour market websites. Stay on the lookout for special events like School of Graduate Studies and Postdoctoral Affairs Career Week to explore your career pathways.
- Check admission test deadlines if needed for further studies.

- Explore different careers of interest by using [Queens Connects](#) on LinkedIn to connect with Queen's alumni. Check out [Career Cruising](#) for more information.
- If you are considering a PhD, explore programs of interest, reach out to faculty, and apply to PhD programs and external scholarships.

- Participate in hiring committees and attend job talks. Start focusing on areas of interest. Research organizations of interest and start putting together your CV or resume for potential positions of interest. Get help from Career Services with job searching, resumes, or interviews.

WHAT WILL I LEARN?

A graduate degree in Geological Sciences 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**
- **Perseverance**
- **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 discussion

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
- Environment assessment
- Mineral and oil exploration
- Mining and hydrocarbon extraction
- Policy analysis
- Protection and rehabilitation
- Resource management
- Surface and underground construction

Taking time to explore career options, build experience, and network can help you have a smooth transition to the world of work after graduation.

How to use this map

Use the 5 rows of the map to explore possibilities and plan for success in the five overlapping areas of career and academics. The map just offers suggestions – you don't have to do it all! To make your own custom map, use the [My Grad Map](#) tool.

Graduate Studies FAQs

How do I make the most of my time at Queen's?

Use the Grad Map to plan for success in five overlapping areas of your career and academic life. Everyone's journey is different - the ideas on the maps are just suggestions to help you explore possibilities. For more support with your professional development, take advantage of the SGSPA professional development framework and the new [Individual Development Plan \(IDP\)](#) process to set customized goals to help you get career ready when you graduate.

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 [SGSPA website](#) 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

- 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 and Postdoctoral Affairs' information on [awards and scholarships](#).



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