

Civil Engineering MAsc Map

Applying to and Navigating Graduate Studies

GRAD MAP FOR MAsc STUDENTS 

Why GRADUATE STUDIES in CIVIL ENGINEERING?

As a Master's student in the field of Civil Engineering, you can play a vital role in future developments in such areas as design of earth structures, water quality and treatment, sediment transport, coastal protection, water and sewer networks, groundwater resources, and construction and rehabilitation of structures, including consideration of climate change impacts and other issues. Civil Engineering has a wide range of applications that contribute to modern life and its infrastructure.

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 Master's student in Civil 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 Civil Engineering.

The Queen's graduate programs in Civil Engineering are home to some of the finest minds in the fields of civil and environmental engineering. Students have the chance to study engineering in an environment where multidisciplinary research and activities are encouraged and facilitated.

The Civil Engineering Department's objective is to provide a broadly-based education in civil engineering which is intrinsically supported by world-class research in the areas of Structural, Geotechnical, Hydrotechnical, and Environmental Engineering.



Program STRUCTURE

MAsc (2 years): 4 graduate term length courses, research, and a thesis.

RESEARCH Areas

- Geotechnical Engineering
- Environmental Engineering
- Hydrotechnical Engineering
- Structural Engineering

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

Visit the Civil Engineering website to read about research areas and learn more about faculty members' research specialization. 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.



**GRADUATE STUDIES AND
POSTDOCTORAL AFFAIRS**

queensu.ca/grad-postdoc

Civil Engineering MASC Map

MASTER OF APPLIED SCIENCE (MASC)



GETTING STARTED

INTERMEDIATE STAGE

WRAPPING UP

ACHIEVE YOUR ACADEMIC GOALS

- Start with key priorities like developing your relationship with your supervisor and completing your coursework.
- Consider how your course papers can contribute to your MASC research thesis.
- Find your way through the academic process with help from the department Grad Chair and the SGSPA website.
- Complete the module mandatory course(s) in laboratory safety (CIVL 801).

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.

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 Graduate Student President for tips on getting involved.
- Check out professional development workshops from SGSPA and the Civil Engineering Department.

ENGAGE WITH YOUR COMMUNITY

- Explore how you can connect with your community through experiential opportunities on- and off-campus.
- Consider volunteering with different community organizations, such as one of the Engineering Society's Design Teams.

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.
- Browse non-academic labour market websites. Stay on the lookout for special events like Graduate Studies and Postdoctoral Affairs Career Week to explore your career pathways.

- Complete your coursework; begin to research and write your thesis.
- Learn about academic integrity at Queen's.

- Attend or present at a graduate conference. Your supervisor can advise as to which conference would be best for you.
- Consider participating in the 3 Minute Thesis (3MT) or GRAD competition.
- Expand your research audience through social media like LinkedIn, or a blog podcast.
- Consider being interviewed on the SGSPA radio show Grad Chat to talk about your research.

- Start keeping an eportfolio of your skills, experiences, and competencies.
- Investigate internships from MITACS and other sources.
- Use a Teaching Assistant position to develop your research or teaching skills.
- For help with teaching, get support from the Centre for Teaching and Learning.

- 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 Four Directions Indigenous Student Centre.
- If you are an international student interested in staying in Canada, consider speaking with an International Student Advisor.

- 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.

- Present your research to Civil Engineering graduate students and faculty and/or attend a conference to present.
- Complete and defend your Master's research thesis and obtain your final grade in CIVL 801.

- Consider publication options for your research.
- Attend a major conference in your field, at which former graduate students from Civil Engineering have done exceptionally well. See your supervisor for more guidance.
- Consider putting an article in The Conversation.

- 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 professional development, MITACS, or other sources to boost your skills.

- 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 societies like the Canadian Society for Civil Engineers.

- 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, and interviews.

Knowledge & Workplace Skills

A graduate degree in Civil Engineering can equip you with:

- **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

Career Possibilities

A Master's degree in Civil Engineering can take your career in many directions. Many of our MASC 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
- Civil Engineering in the public domain
- Consulting
- Law
- Manufacturing
- Policy and Governance
- Public sector

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. To make your own custom map, use the My Grad Map tool: careers.queensu.ca/gradmaps.

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 Professional Development Plan (PDP) 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

- 4-year Bachelor's degree in Engineering or a cognate science.
- **Grade requirements:** minimum B (70%+) average over the four years of undergraduate study. Grades in specific courses in the final two years are also considered.

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 deadline:** March 1 to qualify for internal funding.
- **Notification of acceptance:** 2-3 months after the full application has been received.

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

What about FUNDING?

The basic funding package for Civil Engineering Master's students may include teaching or research assistantships and graduate awards. The funding package is something to be discussed between yourself and your supervisor before accepting the offer.

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.



Debbie Ritchie, Graduate Assistant

(613) 533-6000 ext. 79359

debbie.ritchie@queensu.ca

smithengineering.queensu.ca/civil/graduate/masc