Civil Engineering MASC Map

Applying to and Navigating Graduate Studies

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.

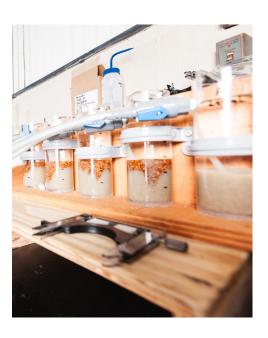
RESEARCH Areas

- · 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 <u>Civil Engineering website</u> 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.







Civil Engineering MASc Map

MASTER OF APPLIED SCIENCE (MASc)



GETTING STARTED INTERMEDIATE STAGE WRAPPING UP ACHIEVE YOUR ACADEMIC Start with key priorities like developing your relationship with Complete your coursework; begin to research and write your Present your research to Civil Engineering graduate students and faculty and/or attend a conference to present. your supervisor and completing your coursework. Complete and defend your Master's research thesis and obtain Consider how your course papers can contribute to your MASc · Learn about academic integrity at Queen's. your final grade in CIVL 801. • 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** Attend or present at a graduate conference. Your supervisor can **RESEARCH** Start to think about the audiences for your research. · Consider publication options for your research. advise as to which conference would be best for you. **IMPACT** If you will be continuing graduate studies, apply for NSERC and Attend a major conference in your field, at which former Consider participating in the 3 Minute Thesis (3MT) or GRAD graduate students from Civil Engineering have done OGS funding exceptionally well. See your supervisor for more guidance. • Expand your research audience through social media like Consider putting an article in The Conversation. LinkedIn, or a blog podcast. · Consider being interviewed on the SGSPA radio show Grad Chat to talk about your research. BUILD Consider positions in student services, the SGPS, or media Practice articulating the skills you have been developing in • Start keeping an eportfolio of your skills, experiences, and **SKILLS AND** outlets like the Queen's Journal, CFRC, and the SGSPA Blog. settings outside the university, such as casual conversation, **EXPERIENCE** Look in the AMS Clubs Directory for more ideas. networking, and interviews. Get help from a Career Services Investigate internships from MITACS and other sources. Serve on departmental or university committees. Talk to the • Use a Teaching Assistant position to develop your research or Graduate Student President for tips on getting involved. Check out opportunities for extra training through CTL, SGSPA teaching skills. Check out professional development workshops from SGSPA professional development, MITACS, or other sources to boost • For help with teaching, get support from the Centre for and the Civil Engineering Department. Teaching and Learning. **ENGAGE** • Do some targeted networking with people working in careers **WITH YOUR** Participate in your graduate and professional community Explore how you can connect with your community through of interest, through LinkedIn, the Queen's Alumni Association, through activities such as graduate student outreach programs, experiential opportunities on- and off-campus. COMMUNITY professional associations, and at conferences. Get help from a organizing conferences, and research groups. Consider volunteering with different community organizations, Career Services workshop. such as one of the Engineering Society's Design Teams. Prepare for work or studies in a multi-cultural environment by Consider joining professional societies like the Canadian taking the Intercultural Awareness Training Certificate hosted Society for Civil Engineers. 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. **LAUNCH YOUR** Participate in hiring committees and attend job talks. Start Finding a career that fits starts with knowing yourself. Get help • Explore different careers of interest by using LinkedIn to **CAREER** focusing on areas of interest. Research organizations of by taking a Career Services workshop or meeting with a career connect with Queen's alumni. Check out Career Cruising for interest and start putting together your CV or resume for educator and coach. more information. potential positions of interest. Get help from Career Services Browse non-academic labour market websites. Stay on • If you are considering a PhD, explore programs of interest with job searching, resumes, and interviews. reach out to faculty, and apply to PhD programs and external the lookout for special events like Graduate Studies and · Find impactful work that aligns with your values using the Postdoctoral Affairs Career Week to explore your career scholarships.

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

Queen's Career Guide to the UN Sustainable Development

Goals.

- 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.

pathways.

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 closeknit 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.

Graduate 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 is currently \$25,000 which 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. For more information, see the School of Graduate Studies and Postdoctoral Affairs' information on awards and scholarships.





