Why GRADUATE STUDIES in CIVIL ENGINEERING?

As a PhD student in the field of Civil Engineering, you can play a vital role in future developments in such areas as rock mechanics, design of foundations, water quality, sediment transportation, pipeline flow, construction and rehabilitation of structures, and many other areas. 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. Check out whygradstudies.ca for more reasons to choose graduate studies in engineering.

Why QUEEN’S?

As a PhD 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. Research activity in the Department is generally classified under two fields: Civil Engineering Environment and Civil Engineering Infrastructure.

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

PhD (4 years): 4 graduate term length courses, research, comprehensive oral examination and a thesis.

RESEARCH Areas

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

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

We suggest that you review the specific research projects currently being investigated by faculty members to identify a potential supervisor. Please note, however, that contacting a faculty member does not guarantee acceptance and you will need to submit your full application in order to be considered.
ACHIEVE YOUR ACADEMIC GOALS
- Key priorities include forming your committee, coursework, discussing direction of your thesis research, and beginning your research.
- 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.
- Complete safety training.

YEAR II
- 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 SGS habitat.
- Seek experiential/professional development opportunities.
- Present your work at graduate conferences through professional associations, or topic conferences.
- Expand your research audience through social media such as Twitter or a blog.
- Consider publishing elements of your research. Learn from the Expanding Horizons publishing workshop.

YEAR III
- Continue to present at conferences.
- Consider participating in the 1 Minute Thesis (1MT) competition.
- Contact the Queen’s Media Centre for guidance on speaking to news outlets about your work.
- Consider putting an article in The Conversation.
- Investigate internships from Mitacs and other sources.
- Participate in the Centre for Teaching and Learning
- Develop your teaching portfolio including student evaluations, and seeking mentorship.
- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.

YEAR IV & TRANSITIONING
- Plan date of thesis submission for examination.
- Present your research to graduate students and faculty or at conferences and work with supervisor to prepare for defence.
- Review submission and examination guidelines.
- Secure necessary oral defence accommodations.
- Discuss career pathways, references letters, and publication options with your supervisor.

BUILD SKILLS AND EXPERIENCE
- Serve on departmental, faculty or university committees.
- Consider positions in student services, the SGS, or media outlets like the Queen’s Journal, CFRC, or the SGS Blog. Look in the AMS Club Directory.
- Use a Teaching Assistant or Research Assistant position to develop your skills and experience.

YEAR IV
- Hone skills for non-academic employment by continuing involvement on committees and in community.
- Start keeping an eportfolio of your skills, experiences and competencies.
- For help with teaching, get support from the Centre for Teaching and Learning.
- Participate in hiring committees and attend job talks.
- Research academic careers of interest. Craft your CV and job application materials.
- Addressing job advertisements and applying for post-doc fellowships and positions.
- Attend public and other professional conferences.
- Consider building your teaching portfolio through the School of Graduate Studies.

ENGAGE WITH YOUR COMMUNITY
- Consider volunteering with different community organizations.
- Connect to broader communities of engineers by joining one of the Engineering Society’s Design Teams.
- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.
- Do some targeted networking with people working in careers of interest, through Queen’s Connects.
- For more information check out Career Cruising.
- Investigate requirements for professional positions or other opportunities related to careers of interest.
- Build connections with faculty outside of your department. Pursue internships for faculty positions and apply for post-doc fellowships and positions. Attend career fairs, and practice for interviews and job search. Build connections with faculty outside of your department. Pursue internships for faculty positions and apply for post-doc fellowships and positions. Attend career fairs, and practice for interviews. Apply to jobs or make plans for other adventures. Get help from Career Services with job searching, resumes, and interviews. If considering jobs abroad, research possible immigration regulations. If you are an international student interested in staying in Canada, consider speaking with an International Student Advisor.

MAXIMIZE RESEARCH IMPACT
- Think about audiences for your research.
- Complete the CORE online module on research ethics if doing research regarding sensitive topics.
- Apply to NSERC, OGS, and other funding sources.
- Attend conferences in your field, based on supervisor advising.
- Practice articulating the skills you have been building through your research.
- Set up a meeting with the School of Graduate Studies for a Grad Chat to discuss your research interests.

WHERE CAN I GO?
- A PhD in Civil Engineering can take your career in many directions. In Canada, less than 40% of all PhDs will work in post-secondary education – the majority will work in industry, government, or non-profits. Our PhD students are equipped with a strong foundation for careers in:
  - Academia and Research
  - Consulting
  - Public sector
  - Manufacturing
  - Policy and Governance
  - Civil Engineering in the public domain
  - Law

WHAT WILL I LEARN?
- 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 and 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

Visit careers.queensu.ca/gradmaps for the online version with links!
Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
- Master's degree in Civil Engineering. Applicants with a Master's degree in a cognate science may be admitted.

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, (2) TOEFL iBT: Writing (24/30); Speaking (22/30); Reading (22/30); Listening (20/30), for a total of 88/120 (applicants must have the minimum score in each test as well as the minimum overall score), or (3) IELTS: 7.0 (academic module overall band score), or (4) PTE Academics: 65.

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 level of financial support consequently varies among graduate students in the Department, with a guaranteed minimum level of $18,000. As part of the minimum funding package, you may serve as a Teaching or Research Assistant.

We encourage all students to apply for external funding from OGS, NSERC and other sources. Queen's will automatically issue a one time $10,000 award to Doctoral students who have won federal government tri-council awards. For more information, see the School of Graduate Studies' information on awards and scholarships or see what awards are offered through the Civil Engineering Department.