

# Chemical Engineering MEng Map

## Applying to and Navigating Graduate Studies

GRAD MAP FOR MEng STUDENTS 

### Why GRADUATE STUDIES in CHEMICAL ENGINEERING?

As a Master's student in the field of Chemical Engineering, you can play a vital role in future developments in such areas as biological conversion, pollution prevention and treatment, tissue engineering, process control and optimization, (bio)chemical sensing, nanocomposites, and many other areas. Chemical Engineering has a wide range of applications that contribute to modern life and its technologies.



### STUDY Areas

- Bioengineering
- Clean Energy and Sustainable Environment
- Materials and Interfaces
- Process Systems Engineering and Systems Biology

Visit the Chemical Engineering website to learn more about this program and its opportunities.



### Why QUEEN'S?

As a Master's student in Chemical Engineering at Queen's you are part of one of the most academically intensive universities in Canada. Our Engineering department is internationally renowned with a wide range of courses in all of the major specialization areas.

The Chemical Engineering Department has links to a number of multi-disciplinary centres at Queen's, including: Centre for Health Innovation, Green Centre Canada, Innovation Park, the Queen's Centre for Energy and Power Electronics Research (ePOWER), and the Queen's Innovation Connector. The Department also houses the Polymers Research Group (PRG), with strengths in polymer reaction engineering, processing, and rheology.



### Program STRUCTURE

**MEng (1 year):** Complete 8 term length courses pre-approved by the department.



**GRADUATE STUDIES AND POSTDOCTORAL AFFAIRS**

[queensu.ca/grad-postdoc](https://queensu.ca/grad-postdoc)

# Chemical Engineering MEng Map

MASTER OF ENGINEERING (MEng)

## GETTING STARTED

## INTERMEDIATE STAGE

## WRAPPING UP

## ACHIEVE YOUR ACADEMIC GOALS

- Start with key priorities like doing your coursework.
- Find your way through the academic process with help from departmental and School of Graduate Studies and Postdoctoral Affairs (SGSPA) professional development workshops, the department Grad Chair, and additional resources on the SGSPA website.

- Complete your coursework.
- Complete the Academic Integrity Tutorial.

- Ensure that you have enough credits to graduate.

## MAXIMIZE LEARNING IMPACT

- Start to think about the impacts you can make with your degree.

- Join an Engineering Society Design Team to contribute your classroom knowledge to a real-world engineering project.
- Consider being interviewed on the SGSPA radio show Grad Chat to talk about your research.

- Reflect on how your coursework equips you for the workplace after graduation.
- 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 Chemical Engineering Graduate Student Association (CEGSA) to get involved.

- Start keeping an eportfolio of your skills, experiences, and competencies.
- 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 professional development, 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 community organizations, such as Queen's Chemical Engineering Graduate Student Association (CEGSA).
- Engage with the Chemical Engineering department on X.

- 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.

- Do some targeted networking with people working in careers of interest, through Queen's 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 Canadian Society for Chemical Engineers.

## 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.
- 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, and interviews.

## Knowledge &amp; Workplace Skills

A graduate degree in Chemical Engineering will empower 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 Chemical Engineering can take your career in many directions. Many of our M.Eng. students choose to continue their academic career with an MASc or a PhD. Our Master's students are also 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](https://careers.queensu.ca/gradmaps).

# Graduate Studies FAQs

# Application FAQs

## What do I need to know to APPLY?

### ACADEMIC REQUIREMENTS

- Bachelor's degree in Engineering or other relevant program.
- **Grade requirements:** minimum B+ (77%) 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:** April 1.
- It is recommended that the application be completed at least 4 months ahead of the desired admission cycle, especially for international students.
- This is a one-year program with a start date of September only.

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

## How do I use this map?

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.

## What about FUNDING?

Chemical Engineering MEng graduate students are required to be self-funded.



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