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 degradation, 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.

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: the Human Mobility Research Centre, 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.

STUDY Areas

- Biochemical Engineering
- Macromolecular Science and Technology
- Process Analytics, Optimization, and Control
- Microfluidics, Colloids, and Biosensors
- Sustainable energy sources, processes, products, and environmental remediation

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

Program STRUCTURE

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

**GETTING STARTED**

- **ACHIEVE YOUR ACADEMIC GOALS**
  - Start with key priorities like doing your coursework.
  - Find your way through the academic process with help from departmental and faculty development workshops, the department Grad Chair and the SGS Habitat.

- **MAXIMIZE LEARNING IMPACT**
  - Start to think about the impacts you can make with your degree.

- **BUILD SKILLS AND EXPERIENCE**
  - Consider positions in student services, the SOPS or media outlets like the Queen's Journal, CFRC, and the SGS Blog, and 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.
  - Check out professional development workshops from Expanding Horizons and the Chemical 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 Queen's Chemical Engineering Graduate Student Association (CEGSA).
  - Engage with the Chemical Engineering department on Twitter.

- **LAUNCH YOUR CAREER**
  - Finding a career that fits starts with knowing yourself. Get help by taking a Career Services career planning workshop or meeting with a career counselor. Check out books like So What Are You Going to Do With That?
  - 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 Graduate Students' Career Week.
  - Check admission test deadlines if needed for further studies.

**INTERMEDIATE STAGE**

- **GETTING STARTED**
  - Complete your coursework.
  - Complete the Academic Integrity Tutorial.

- **MAXIMIZE LEARNING IMPACT**
  - Join an Engineering Society Design Team to contribute to your classroom knowledge to a real-world engineering project.

- **BUILD SKILLS AND EXPERIENCE**
  - Start keeping an eportfolio of your skills, experiences and competencies.
  - For help with teaching, get support from the Centre for Teaching and Learning. Enroll in SGS901 or the PUTL certificate for more professional development in teaching and learning.

- **ENGAGE WITH YOUR COMMUNITY**
  - Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups like Material Matters.
  - Prepare for work or studies in a multi-cultural environment by taking QUCAS Intercultural Competency Certificate.
  - If you are an international student interested in staying in Canada, consider speaking with an International Student Advisor.

- **LAUNCH YOUR CAREER**
  - Explore different careers of interest by reading alumni profiles on the SGS website, and using Queen'sConnects on LinkedIn to connect with Queen's alumni, or find alumni in various careers through Ask an Alum.
  - Check out the free online modules at MyGradSkills to help you plan your career.
  - If you are considering a PhD, explore programs of interest reach out to faculty, and apply to PhD programs and external scholarships.

**WRAPPING UP**

- **GETTING STARTED**
  - Ensure that you have enough credits to graduate.

- **MAXIMIZE LEARNING IMPACT**
  - Reflect on how your coursework equips you for the workplace after graduation.

- **BUILD SKILLS AND EXPERIENCE**
  - 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 CTE, Expanding Horizons, Mitacs, or other sources to boost your skills.
  - Investigate internships from Mitacs and other sources.

- **ENGAGE WITH YOUR COMMUNITY**
  - Do some targeted networking with people working in careers of interest, through Queen'sConnects, 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**
  - 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 Chemical Engineering 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 social sensitivities
- 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 Chemical Engineering can take your career in many directions. Many of our MEng. 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:

- Consulting
- Finance
- Manufacturing
- Petroleum
- Pharmaceuticals

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

Visit careers.queensu.ca/gradmaps for the online version with links!
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 School of Graduate Studies requires the following minimum scores:
  - TOEFL (paper-based): 550,
  - 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
  - IELTS: 7.0 (academic module overall band score), or
  - PTE Academics: 65.

KEY DATES & DEADLINES
- Application due: There is a constant intake with no set deadline. It is recommended that the application be completed at least 4 months ahead of the desired admission cycle, especially for international student.
- Notification of acceptance: Rolling acceptances for September start.

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

What about FUNDING?

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