Application FAQs

What do I need to know to APPLY?

**ACADEMIC REQUIREMENTS**
- A 4 year Honour’s degree in Chemistry or a related science, including Biochemistry, Chemical Physics, Materials Science, or Chemical Engineering.
- Grade requirements: minimum upper second class standing (B+ average).

**ADDITIONAL REQUIREMENTS**
- Correspond with potential supervisors.
- Two official transcripts for all post-secondary studies.
- Two Letters of Recommendation.
- Curriculum Vitae.
- If English is not a native language, prospective students must meet the minimum English language proficiency requirements: TOEFL (paper-based): 550, (iBT): 80; IELTS: 7.0. 

**How to apply**

MSc. students in Chemistry receive minimum funding of $24,500 per year. Many students are awarded scholarships and awards, which allow them to exceed this level of income.

**What about FUNDING?**

The funding package may comprise of graduate awards, research fellowships, and research and/or teaching assistantships.

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.

**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 54 departments and research centers. With the world's best scholars, peer-winning professional development opportunities, excellent funding packages and life in a safe and 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 – Discover Kingston page.

**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 GSS Habitat for available resources.

**MSc Map**

**Why GRADUATE STUDIES in CHEMISTRY?**

A degree from Queen’s Department of Chemistry is highly regarded and an important consideration in today’s competitive science and technology job market. Our $56 million state of the art building is home to the Nuclear Magnetic Resonance facility and its eight high-field instruments; an on-site Mass Spec facility with four mass spectrometers, an X-ray diffractometer, a CFI funded facility for materials characterization and more unique equipment in faculty labs.

**Why QUEEN’S?**

Queen’s University and the Department of Chemistry enjoy international reputations. With 27 award-winning faculty, and over 130 graduate students, post-doctoral fellows and research associates performing cutting-edge research in a multitude of areas, you will find this an exciting place to do research. Research is performed in the areas of analytical, inorganic, organic, physical, polymer, and theoretical chemistry. Research in these areas ranges from the most fundamental to very applied. A unique opportunity to obtain dual degrees from Queen’s University and the University of Stuttgart, Germany. "Within the Stuttgart/Queen’s double program my lab had the opportunity to conduct research at two different institutions and make valuable connections."

- Matthias Hermann, MSc

**Program STRUCTURE**

MSc (2 years): course work and thesis.

Current Queen’s undergraduate chemistry students entering their 4th year and have a A- (A minus) average may apply for an Accelerated Masters (https://www.chem.queensu.ca/undergraduate/accelerated-msc-program). Students who show exceptional promise in their research have the option to promote to the PhD program in their second year.

**RESEARCH Areas**

- Analytical/Environmental
- Biological
- Inorganic/Organometallic
- Materials/Polymer
- Organic
- Physical
- Theoretical/Computational

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

Visit the [Chemistry Department website](https://www.chem.queensu.ca/gradstudies) to read faculty profiles and learn more about faculty members' research areas. When you find a faculty member with similar research interests to you, contact him/her and tell them about your interest in graduate work and related experience. This is also an opportunity for you to find out if the faculty member is accepting new graduate students to supervise.

"A Master’s in Chemistry is a versatile degree that has provided me with the analytical and critical thinking skills that are requisite to success in my future career as a lawyer."

- Kaiyil Donovan, MSc
Achieve your academic goals

- Start with key priorities like developing your relationship with your supervisor, forming your committee, and doing your coursework.
- Complete WHMIS safety training.
- Find your way through the academic process with help from departmental and expanding horizons professional development workshops, the department grad chair, and the SGS habitat.

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 SGSS, or media outlets like the Queen’s Journal, CFRC, and the SGS Blog. Look in the AMS clubs, directory for more info.
- Serve on departmental, faculty, or university committees.
- Check out professional development workshops from expanding horizons.

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, museums, and cultural studies groups, such as Science Rendezvous, Let’s Talk Science, or Women in Science & Engineering (WISE).
- Take part in events put on by the Queen’s Chemistry Innovation Council.
- Consider judging local and regional science fairs.

Launch your career

- Finding a career that fits starts with knowing yourself. Get help by taking a careers workshop or meeting with a career counselor. Check out books like So What Are You going to do With That? or Planning a Scientific Career in Industry from the career resource area for advice on various career options.
- 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 school of graduate studies career week to explore your career pathways.
- Check admission test deadlines if needed for further studies.

Getting started

- Complete your coursework, begin to research and write your thesis.
- Complete your annual research progress reports.
- Consider attempting the PhD candidacy/comprehensive exam for promotion to the PhD program.

Intermediate stage

- Attend or present at a graduate conference such as the Canadian Chemistry Conference and Exhibition or the American Chemistry Society National Meeting.
- Consider participating in the 3 minute thesis competition and attend the weekly seminar series (CHEM 810).
- Expand your research audience through social media such as Twitter or a blog. Conduct research at an international collaborative university (i.e. Stuttgart, Nagoya, Potsdam).

Wrapping up

- Consider publication options for your research.
- Attend a major conference in your field, such as the MicroTAS, the ICP Winter Conference on Plasma Spectrochemistry, or the Canadian Cancer Research Conference.
- Set up a meeting with the school of graduate studies for a Grad Chat to discuss your research interests.

Intermediate stage

- Start keeping an eportfolio of your skills, experiences, and competencies.
- Use a research assistant or teaching assistant position to develop your research or teaching skills.
- For help with teaching, get support from the Centre for teaching and Learning. Enroll in GS 902 or the putl certificate for more professional development in teaching and learning.
- Participate as a graduate representative on a department committee (i.e. graduate committee, appointments committee, technical resource committee, health and safety committee).

Wrap up

- 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 CTI, expanding horizons, MFTAC, or other sources to boost your skills.
- Take advantage of the state-of-the-art research facilities, which feature NMR, mass spectrometry, X-ray diffractometry, a laser lab, and more.

WHAT WILL I LEARN?

A graduate degree in Chemistry can equip you with:
- Knowledge and technical skills:
  - Chemical synthesis
  - Spectroscopic characterization
  - 3D printing/rapid prototyping
  - Mass spectrometry analysis
  - Experimental design
  - Molecular modeling
- Communications:
  - Manuscript writing
  - Conference oral presentation
  - Poster presentation (graphic)
- Creativity and Innovation:
  - Scientific patent writing/patent protection
  - Business skills in chemical industry
- Leadership and Collaboration:
  - Committee participation
  - Supervision of junior researchers
  - Industrial engagement
  - Research with international experts/partners

WHERE CAN I GO?

A Master's degree in Chemistry can take your career in many directions. Many of our MSC students choose to continue their academic inquiry with a PhD. Our Master's students are equipped with a strong foundation for careers in:
- Quality Control Chemist
- Doctoral Studies
- Forensic Scientist
- Environmental Law
- Patent Law
- Food Scientist
- Biochemist
- Consumer Protection
- Pharmaceutical Chemist
- Materials Scientist
- Petroleum Engineer
- Chemical Education (University, College, Secondary/Primary)

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!