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 new $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.

“My years at Queen's have left me with nothing but good memories. It was a great experience, a great city and a great education. It was a solid foundation to launch a career.”

– Will N. Rogers, PhD

Program STRUCTURE

MSc (2 years): course work and thesis.

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 to read faculty profiles and learn more about faculty members’ research areas. 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. This is also an opportunity for you to find out if the faculty member is accepting new graduate students to supervise.
**Chemistry MSc MAP**

**MASTERS OF SCIENCE (MSc)**

**GETTING STARTED**

- 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 SGS, or media outlets like the Queen’s Journal, CFBR, and the SGS Blog. Look in the AMS Clubs Directory for more ideas.
- Serve on departmental, faculty or university committees. Talk to the Queen’s Graduate Chemistry Society for tips on getting involved.
- 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.
- 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 Career Services career planning workshop or meeting with a career counsellor. Check out books like So What Are You Going to Do With That? or Planning a Scientific Career in Industry from the Science 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 Graduate Student Career Forum to explore your career pathways.
- Check admission test deadlines if needed for further studies.

**INTERMEDIATE STAGE**

- Complete your coursework; begin to research and write your thesis.
- Complete your annual Research Progress Reports.

**WRAPPING UP**

- Complete and defend your thesis (CHEM 899).

**WHAT WILL I LEARN?**

A graduate degree in Chemistry can equip you with valuable and versatile skills, such as:

**Knowledge and Technical Skills**
- Chemical synthesis
- Spectroscopic characterization
- 3D printing/rapid prototyping
- Mass spectrometry analysis
- Design and experimental
- Molecular modelling

**Communication**
- Manuscript writing
- Conference oral presentation
- Poster presentation (graphic)

**Creativity and Innovation**
- Scientific patent writing/patent protection
- Business skills in chemical industry
- Grants development

**Leadership and Collaboration**
- Committee participation
- Supervision of junior researchers
- Industrial engagement
- Research with international expertise/contacts

**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
- Biochemistry
- Consumer Protection
- Pharmaceutical Chemist
- Materials Scientist
- Petroleum Engineer
- Chemical Education (University, College, Secondary/Primary)

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

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

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
- 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.
- 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 due: February 1st to be considered for awards. Later applications are accepted.
- Notification of acceptance: Accepted students are notified as the applications are reviewed.

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

What about FUNDING?

M.Sc. 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.

Apply for external funding from OGS, NSERC and other sources. Queen’s will automatically issue a $5,000 top-up to Masters winners of 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 Chemistry Department.

How do I use this map?

Whether you are considering or have embarked on graduate studies at Queen’s, use this map to plan for success in five overlapping areas of your career and academic life. The map helps you explore possibilities, set goals and track your individual accomplishments. Everyone’s journey is different – the guide offers options for finding your way at Queen’s and setting the foundation for your future. To make your own customized map, use the online My Grad Map tool.

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 SGS HABITAT 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.