

# Chemistry M.Sc. Map

*Navigating Graduate Studies and Beyond*

GRAD MAP FOR M.Sc. STUDENTS 

## 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.

## 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?**

*"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

Queen's University and the Department of Chemistry enjoy international reputations. With 25 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.

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.



## Why **KINGSTON?**

Described by students as both "quaint" and "eclectic," Kingston is big enough to provide all the conveniences of modern life, and small enough for students, staff, and faculty to feel instantly comfortable and at home.

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.

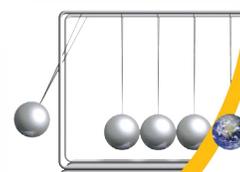
## Program **STRUCTURE**

M.Sc. (2 years): course work and thesis.

## RESEARCH Areas

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

School of  
 Graduate  
 Studies  
 Create an impact  
[www.queensu.ca/sgs](http://www.queensu.ca/sgs)



## GETTING STARTED

## INTERMEDIATE STAGE

## WRAPPING UP

### 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 [SGPS](#), or media outlets like the [Queen's Journal](#), [CFRC QTV](#) 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](#).

### LAUNCH YOUR CAREER

- Finding a career that fits starts with knowing yourself. Get help by taking the [Career Services Career Planning workshop](#) or meeting with a career counsellor. Check out books like *So What Are You Going to do With That?* 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 Week](#) to explore your career pathways.
- Check admission test deadlines if needed for further studies.

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

- Attend or present at a graduate conference such as [Canadian Chemistry Conference and Exhibition](#).
- Consider participating in the [3 Minute Thesis \(3MT\)](#) competition.
- Attend the weekly seminar series (CHEM 802).
- Expand your research audience through social media such as Twitter or a blog.

- 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 [SGS901](#) or the [PUTL certificate](#) for more professional development in teaching and learning.

- 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 QUIC's [Intercultural Competency Certificate](#).
- If you are an international student interested in staying in Canada, consider speaking with an [International Student Advisor](#).

- Explore different careers of interest by reading [alumni profiles](#) on the SGS website, and using [QueensConnects](#) 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.

- Complete and defend your thesis (CHEM 899).

- Consider publication options for your research.
- Attend a major conference in your field, such as the [Canadian Chemistry Conference and Exhibition](#).

- Practice articulating the skills you have been developing in settings outside the university, such as casual conversation, networking, and interviews. Get help with the [Skills and Experience workshop](#).
- Check out opportunities for extra training through CTL, Expanding Horizons, [Mitacs](#), or [other sources](#) to boost your skills.
- Take advantage of the state-of-the-art research facilities, which feature NMR, mass spectrometry, X-ray diffractometer, a laser lab, and more.

- Do some targeted networking with people working in careers of interest, through [QueensConnects](#) on LinkedIn, the [Queen's Alumni Association](#), professional associations, and at conferences. Check out Career Services' [networking workshops](#).
- Consider joining professional associations like the [Canadian Society for Chemistry](#).

- 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](#).

## EMPLOYABILITY SKILLS

**Knowledge and technical skills** in area of specialization

**Communication:** effective and clear in written, oral and multimedia forms, for diverse audiences

**Information management:** prioritize, organize and synthesize large amounts of information

**Time management:** meet deadlines and responsibilities despite competing demands

**Project management:** develop ideas, gather information, analyze, critically appraise findings, draw and act on conclusions

**Creativity and innovation** to address complex, multifaceted challenges

**Perseverance** to work through challenges to achieve desired outcome

**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 discussions

# M.Sc. Map 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 **TOEFL requirements** in writing, speaking, reading, and listening.

### KEY DATES & DEADLINES

- **Application due:** March 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](#).

## How do I find a supervisor?

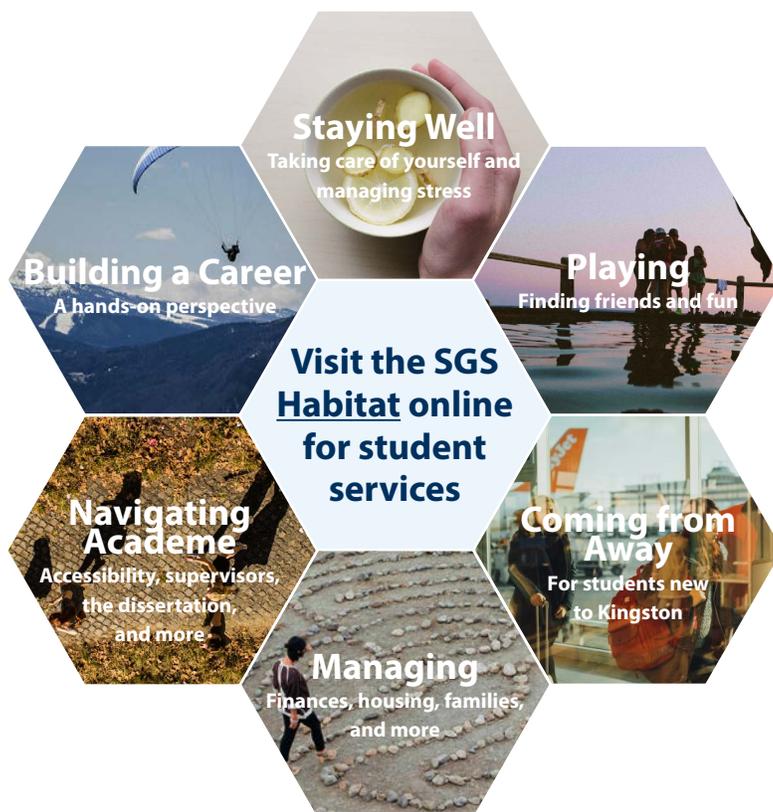
We encourage you to identify an area of research interest and contact a potential supervisor before applying.

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.

## What about funding?

M.Sc. students in Chemistry receive minimum funding of \$23,000 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.

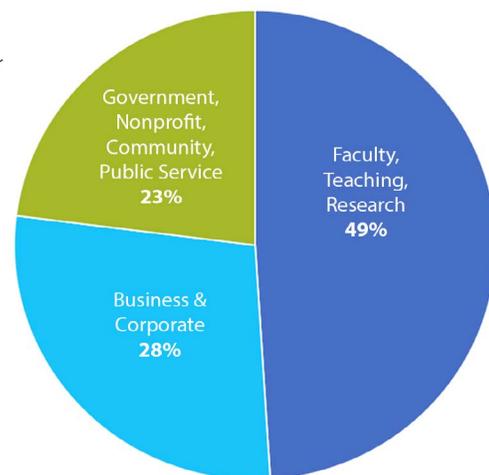


# Where Can a Graduate Degree Take Me?

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:

- Research chemist
- Research engineer
- Scientist
- Technical leader
- ICP Analyst
- Professor

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



## M.Sc. Career Outcomes in the Physical Sciences

*Council of Graduate Schools and Educational Testing Service. (2012). Pathways Through Graduate School and Into Careers. Princeton, NJ: Educational Testing Service.*



DEPARTMENT OF  
CHEMISTRY

Department of Chemistry  
613.533.2616  
gradadm@chem.queensu.ca  
www.chem.queensu.ca