Computing M.Sc. Map
Navigating Graduate Studies and Beyond

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 COMPUTING?
The School of Computing is active in research on a broad range of topics, with a strong research record. Research areas include: Biomedical Computing, Cloud Computing, Databases, Data Mining, Mobile Networks, Software Engineering, Human-Machine Learning, Algorithms, Computational Linguistics, Theoretical Computer Science, Computational Geometry, Graph Theory, Artificial Intelligence, Parallel Systems, and Programming Languages. We are finding methods to make data more secure, software more reliable, and computers more intelligent.

Why QUEEN'S?
“The cutting-edge research, world-renowned supervisors, unparalleled social experience, and a devotion to school life [...] result in nothing short of awesome.”
– Eric Rapos, PhD student

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.

Program STRUCTURE
The Master's of Computing is offered in 3 methods of completion:
• MSc (4-6 terms): course work and thesis
• MSc (2-3 terms): course work and project
• MSc (2 terms): course work

RESEARCH Areas
• Theory
• Software
• Databases and Cloud Computing
• Biomedical Computing
• Data Mining
• Mobile Computer Networking
• Game Development and Human Computer Interaction

Visit www.cs.queensu.com for more on the School of Computing.

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.
**GETTING STARTED**

- Start with high priorities like developing your relationship with your supervisor, forming your committee, and doing your coursework.
- 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.

**INTERMEDIATE STAGE**

- Complete your coursework; begin to research and write your thesis.
- Attend or present at a graduate conference such as the Queen's Graduate Computing Society Conference.
- Start keeping an eportfolio of your skills, experiences and competencies.
- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups like Material Matters.

**WRAPPING UP**

- Complete and defend your thesis.
- Consider publication options for your research.
- 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.
- Attend a major conference in your field. Hundreds of conferences exist in Computing.

**ACHIEVE YOUR ACADEMIC GOALS**

- Start with high priorities like developing your relationship with your supervisor, forming your committee, and doing your coursework.
- 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.
- Start keeping an eportfolio of your skills, experiences and competencies.
- For help with teaching, get support from the Teaching Assistant position to develop your research or teaching skills.

**BUILD SKILLS AND EXPERIENCE**

- Consider positions in student services, the SGS, or media outlets like the Queen's Journal, CFRG, QTV, and the SGS Blog for ideas on getting involved.
- Serve on departmental, faculty or university committees. Talk to the Queen's Graduate Computing Society for tips on getting involved.
- Check out professional development workshops from Expanding Horizons and the Computing 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.
- 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 QUC’s Intercultural Competency Certificate.

**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 counselor. Check out books like 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.
- 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.

**EMPLOYABILITY SKILLS**

- Communication: effective and clear in written, oral and multimedia forms, for diverse audiences
- Information management: prioritize, organize and synthesize large amounts of information
- 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

Visit careers.queensu.ca/gradmaps for the online version with links!
M.Sc. Map FAQs

What do I need to know to apply?

ACADEMIC REQUIREMENTS

• Undergraduate degree with a concentration in Computing Science.
• Candidates with high academic standing in an undergraduate degree other than computing science, who have some computing science background may be admitted as graduate preparatory students.
• Grade requirements: minimum upper second class standing (B+ average).

ADDITIONAL REQUIREMENTS

• 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: January 15th for both September and January admissions.
• Notification of acceptance: between February and June.

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 School of Computing 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?

MSc students in the research stream receive minimum funding of $19,500 per year. The other streams (course work and project) are funded by the student.

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 Computing 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:

• Systems Software Developer
• Telecommunications/Networks Engineer
• Biomedical Engineer/Bioinformatics specialist
• Special Effects/Graphics Specialist
• Computer Systems/Database Manager
• Operations Research Specialist
• Systems Analyst/Operating Systems Programmer
• Management positions in public, private and non-profit organizations

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