Why GRADUATE STUDIES in MATHEMATICS and STATISTICS?

A graduate degree in Mathematics and Statistics is essential for anyone aspiring to research or academic positions, and for those who want to assume a leadership role in government, business, and industry. A Master's degree in mathematics and statistics prepares students for a wide variety of research and industry career options.

Why QUEEN'S?

Queen's is an ideal place to pursue graduate study in Mathematics and Statistics. We have an outstanding group of faculty researchers who are internationally recognized in their fields of specialization. They represent a wide variety of areas including pure mathematics, mathematical physics, mathematics applied to engineering, mathematical biology, and both theoretical and applied statistics.

Program STRUCTURE

- MSc Pattern I (18-24 months): course work and a research thesis.
- MSc Pattern II (12 months): course work and research project.
- MASc (18-24 months): course work and a research thesis.

RESEARCH Areas

- Algebra and Number Theory
- Analysis, Geometry, and Topology
- Applied Mathematics
- Probability and Statistics

As part of your application for admission to the Department of Mathematics and Statistics you will be asked to list your research interests. We encourage you to review faculty research interests and faculty profiles to learn more about the research interests represented in our Department.

“\nThe graduate mathematics program at Queen’s University is academically rigorous, deeply rewarding, the perfect preparation for a future career in industry or academia.\”

–Jeff Calder,
Associate Professor of Mathematics,
University of Minnesota
**Mathematics & Statistics, Mathematics & Engineering**

**GETTING STARTED**

- Start with key priorities like developing your relationship with your supervisor and doing your coursework.
- Find your way through the academic process with help from the School of Graduate Studies and Postdoctoral Affairs professional development workshops, the department Grad Chair, and the SGSPA website.
- Start to think about your scholarly audience.
- If you are continuing graduate studies, explore graduate programs and apply for external scholarships such as NSERC or OGS.
- Explore how you can connect with your community through outlets like the Queen's Journal, CFRC, and the SGSPA Blog.

**INTERMEDIATE STAGE**

- Complete your coursework; begin to research and write your project or thesis.
- Attend the weekly Math & Stats Department Colloquium.
- Participate in the weekly departmental Graduate Student Seminar.
- Consider participating in the 3 Minute Thesis (3MT) competition.
- Expanding 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, Enrol in SGS902 or the PUTL Certificate for more professional development in teaching and learning.
- Explore different careers of interest by using Queen’s Connect on LinkedIn to connect with Queen’s alumni. Check out Career Cruising for more information.
- If you are considering a PhD, explore programs of interest reach-out to faculty, and apply to PhD programs and external scholarships.

**WRAPPING UP**

- Complete and defend your project or thesis.
- Consider putting an article in The Conversation.
- Consider volunteering with different community organizations, such as Math Quest, a math camp for girls.
- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.
- Prepare for work or studies in a multi-cultural environment by taking the Intercultural Awareness Training Certificate hosted by QCIC and Four Directions Indigenous Student Centre.
- If you are an international student interested in staying in Canada, consider speaking with an International Student Advisor.
- Do some targeted networking with people working in careers of interest through Queen’s Connect on LinkedIn, the Queen’s Alumni Association, professional associations, and at conferences. Get help from a Career Services workshop.
- 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 CTL, School of Graduate Studies and Postdoctoral Affairs professional development, MITACS, or other sources to boost your skills.
- Share your knowledge and experience with your community through ciareer development workshops, organizing conferences, and research groups.
- 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, and interviews.

**WHAT WILL I LEARN?**

A graduate degree in Mathematics and Statistics or Mathematics and 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 collaborator and team leader
- Awareness, an 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 discussion

**WHERE CAN I GO?**

A Master's degree in Mathematics and Statistics or Mathematics and Engineering 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:

- Academia
- Biostatistics
- Business Analysis
- Clinical Data Analysis
- Finance

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

How do I make the most of my time at Queen's?

Use the Grad Map to plan for success in five overlapping areas of your career and academic life. Everyone's journey is different - the ideas on the maps are just suggestions to help you explore possibilities. For more support with your professional development, take advantage of the SGSPA professional development framework and the new Individual Development Plan (IDP) process to set customized goals to help you get career ready when you graduate.

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 SGSPA website for available resources.

Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS

• MSc: 4 year Bachelor's degree or equivalent, in Mathematics and/or Statistics or related field, with a minimum B+ standing.
• MASc: 4 year Bachelor's degree in engineering and a strong background and interest in Mathematics and Statistics, with a minimum B+ standing.

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 following minimum scores are required: (1) TOEFL iBT: Writing (24/30); Speaking (22/30); Reading (22/30); Listening (20/30). Applicants must have the minimum score in each test as well as the minimum overall score, or (2) IELTS: 7.0 (academic module overall band score and a 7.0 for each test band), or (3) PTE Academics: 65, or (4) CAEL CE -70 (minimum overall score).

KEY DATES & DEADLINES

• Application due: Although applications can be submitted up to April 30th, applicants are advised to submit their applications as soon as possible and by January 15th in order to receive full funding consideration.
• Notification of acceptance: Rolling acceptances.

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

What about FUNDING?

Most MSc and MASc students in Mathematics and Statistics receive minimum funding of $25,500 per year for up to two years, depending on the program. Student funding packages normally consist of a combination of internal or external scholarships and awards, teaching assistantships, and research fellowships.

We encourage all eligible student to apply for external funding from OGS, NSERC, and other sources. For more information on sources of funding see Funding, Awards, Scholarships and Bursaries.

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