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 is very useful 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 (number theory, algebra, algebraic geometry, combinatorics, operator algebras, random matrices and dynamical systems), mathematical physics, mathematics applied to engineering (control theory, communication theory), 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

MSc
• Algebra and Number Theory
• Analysis, Geometry, and Topology
• Applied Mathematics
• Mathematics and Engineering
• Probability and Statistics

MASc
• Mathematics and Engineering

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

Visit the Department of Mathematics and Statistics 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.

“The graduate mathematics community at Queen’s is vibrant, international, and intellectually stimulating.”

–John Treilhard, MSc
2021-2022
Mathematics & Engineering, Mathematics & Statistics

MASTERS OF APPLIED SCIENCE (MASc), master of science (MS)

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 departmental and Expanding Horizons professional development workshops, the department Grad Chat, and the SGS website.

INTERMEDIATE STAGE
- Complete your coursework, begin to research and write your project or thesis.
- Attend the weekly Math & Stats Department Colloquium.

WRAPPING UP
- Complete and defend your project or thesis.

MAXIMIZE RESEARCH IMPACT
- Start to think about the audiences for your research.
- If you will be continuing graduate studies explore graduate programs and apply for external scholarships such as NSERC or OGS.

BUILD SKILLS AND EXPERIENCE
- Consider positions in student services, the SOPS, or media outlets like the Queen’s Journal, CFRC, and the SGS Blog. Look in the AMS Clubs Directory for more ideas.
- 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, such as Math Quest, a math camp for girls.

LAUNCH YOUR CAREER
- Finding a career that fits starts with knowing yourself. Get help by taking a Career Services workshop or meeting with a career counselor. Check out books like So What Are You Going to Do With That? or The Academic Job Search 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 labor 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.

WHAT WILL I LEARN?
A graduate degree in Mathematics and Statistics or Mathematics and Engineering can give 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 collaborative worker
- Awareness of 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 you 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
- Clinical Data Analysis
- Business 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.

* This map is intended to provide suggestions for activities and careers, but everyone’s abilities, experiences, and constraints are different. Build your own Grad Map using our online My Grad Map tool.

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

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
• MSc: 4 year Bachelor’s degree (perferably honours) with a minimum B+ standing.
• MASc: 4 year Bachelor’s degree (normally in engineering) with a minimum B+ standing.

ADDITIONAL REQUIREMENTS
• Two official transcripts for all post-secondary studies.
• At least 2 letters of reference.
• 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 $23,000 per year. The funding package can consist of teaching assistantships or fellowships, research fellowships, internal and external awards and/or scholarships.

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.