Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
Master’s degree in Mathematics and/or Statistics or related field with a minimum B+ standing and demonstrated research potential and clear interests. Applicants interested in Mathematics and Engineering will also have an undergraduate degree in an engineering field.

ADDITIONAL REQUIREMENTS
• Two official transcripts for all post-secondary studies.
• At least 2 letters of reference.
• Curriculum vitae.
• 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, (internet based): 60, TOEFL iBT: Writing (22/30); 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: January 15 to receive full funding consideration. There is no deadline to apply for admission.
• Notification of acceptance: Rolling acceptances.

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

What about FUNDING?

The minimum funding guarantee for Mathematics and Statistics PhD students is $25,000 per year, throughout years 1-4. The funding package may be comprised of teaching assistantships or fellowships, research assistantships, internal and external awards and/or scholarships.

We encourage all students to apply for external funding from OGS, NSERC and other sources. Queen's will automatically issue a $10,000 award to incoming PhD students who have won federal government tri-council awards. For more information, see the School of Graduate Studies’ information on awards and scholarships.

Why GRADUATE STUDIES in MATHEMATICS?

A doctoral degree in mathematics and statistics is essential for anyone aspiring to a research or academic position, and is very useful for those who want to assume a leadership role in government, business and industry. The Doctor of Philosophy is a research degree, and doctoral studies are an essential step in the preparation of a research scientist.

Why QUEEN’S?

Queen’s is an ideal place to pursue graduate study in Mathematics. 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.

DEPARTMENT OF MATHEMATICS AND STATISTICS
Jennifer Read, Graduate Assistant
(613) 533-2469
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PHOTO: Department of Mathematics

PROGRAM STRUCTURE

PhD course work, qualifying exams, prospectus exam.

RESEARCH Areas
• Algebra and Number Theory
• Analysis, Geometry and Topology
• Applied Mathematics
• Mathematics & Engineering
• Probability and Statistics

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 find faculty members and learn more about faculty member 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.

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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.

HABITAT

Where can I get help?

At Queen’s, the School of Graduate Studies provides students 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.

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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.

FAQs

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ACHIEVE YOUR ACADEMIC GOALS

- Key priorities include your relationship with your supervisor and forming your supervisory committee, coursework, preparing for, and passing qualifying exams.
- Meet early with your supervisor to set expectations and discuss roles, responsibilities, program requirements, resources, research/occupational goals, timelines, and any required accommodation plans.
- Look to the Student Academic Success Services for a variety of support.
- Attend weekly seminars of interest, the Graduate Student Seminar, and the departmental Colloquium.

YEAR II

- Write and defend your thesis prospectus.
- Embark on your substantive research.
- 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.
- Continue to attend seminars, and seek exemplary/professional development opportunities.

- Continue to meet regularly with your supervisor; review research progress, and write your dissertation.
- Check out the SGS Dissertation Boot Camp or Dissertation on the Lake.
- Use conference presentations to create, discuss, and explore ways to disseminate research findings. Learn from the Expanding Horizons Publishing workshop.
- Begin discussion of potential thesis defence examiners.

YEAR IV & TRANSITIONING

- Plan date of thesis submission for examination.
- Present your research to graduate students and faculty or at conferences and work with supervisor to prepare for defence.
- Review submission and examination guidelines.
- Secure necessary oral defence accommodations.
- Discuss career pathways, references letters, and publication options with your supervisor.

MAXIMIZE RESEARCH IMPACT

- Think about audiences for your research.
- Complete ROMEO online module on research ethics if doing research with living people or sensitive topics.
- Apply to NSERC, OGS, and other funding.
- Attend conferences in your field.

BUILDSKILLS AND EXPERIENCE

- Serve on departmental, faculty or university committees.
- Consider positions in student services, the SOPS or media outlets like the Queen's Journal, CFR, and the SGS Blog. Look in the AMS Clubs Directory.
- Use a Teaching Assistant or Research Assistant position to develop your skills and experience.

- Present your work at graduate conferences, through professional associations, or topic conferences.
- Expand your research audience through social media such as Twitter or a blog.
- Apply to external funding agencies if eligible.

- Continue to present at conferences.
- Consider participating in the 3 Minute Thesis (3MT) competition.
- Contact the Queen's Media Centre for guidance on speaking to news outlets about your work. List yourself on the Arts and Science University Research website.

- Find opportunities for extra training through CIL, Expanding Horizons, Mitacs, or other sources to boost your skills. Investigate internships from Mitacs and other sources.
- Prepare for work or studies in a multi-cultural environment by taking UQuC's Intercultural Competency Certificate.
- Apply for teaching as a departmental teaching fellow.

ENGAGE WITH YOUR COMMUNITY

- Explore how you can connect with your community through experiential opportunities on- and off-campus.
- Consider volunteering with 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 like Material Matters.
- Continue to attend conferences and connect with scholars in your field and with community partners.
- Continue public outreach through social media and the Queen's Media Centre.

WHERE CAN I GO?

- A PhD 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 collaborative worker
  - Awareness, 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

- A graduate degree in Mathematics and Statistics or Mathematics and Engineering can take your career in many directions. In Canada, less than 40% of all PhDs will work in post-secondary education – the majority will work in industry, government, or non-profits.
  - 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.

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

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