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: for TOEFL, a minimum of 6.0 (paper-based) or 88 (internet-based); for IELTS, an overall minimum band score of 7.0; and for PTE, an overall minimum score of 65.

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 SGS HABITAT for available resources.

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 study. Our vibrant community is enriched by the diverse cultural, social and sports activities available in Kingston, a city of approximately 125,000 people.

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 fellowships, internal and external awards and/or scholarships. Awards and scholarships include: graduate assistantships, teaching assistantships, research assistantships, scholarships, internal and external awards, and professional development opportunities. Funding is based on academic performance, research ability, and potential to attract external funding. 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 SGS HABITAT for available resources.

Why QUEEN’S?
Queen’s is an ideal place to pursue graduate studies 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), applied mathematics, both theoretical and applied statistics. The graduate mathematics community at Queen’s is vibrant, international, and intellectually stimulating.” – John Treilhard, MSc

Program STRUCTURE

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 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.

Why GRADUATE STUDIES in MATHEMATICS and STATISTICS?
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.

Tuition and fees for available resources.
Mathematics & Engineering, Mathematics & Statistics PhD

**ACHIEVE YOUR ACADEMIC GOALS**

**YEAR I**
- 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 Student Academic Success Services for a variety of supports.
- Attend weekly seminars of interest, the Graduate Student seminar, and the department 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 experimental professional development opportunities.

**YEAR III**
- 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**

**YEAR I**
- Think about audiences for your research.
- Complete CORE 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.

**YEAR II**
- 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.

**YEAR III**
- 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.

**YEAR IV**
- Find opportunities for extra training through CTL, 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 context. Intercultural Awareness Training Certificate hosted by OUC and Four Directions Indigenous Student Centre.
- Apply for research as a departmental teach fellow.

**BUILD SKILLS AND EXPERIENCE**

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

**YEAR II**
- Hone general employment skills by continuing involvement on committees and in the community.
- Start keeping an ePortfolio of your skills, experiences, and competencies.
- Complete the department’s teaching apprenticeship program.
- Get support from the Centre for Teaching and Learning.

**YEAR III**
- Do some targeted networking with people working in careers of interest, through Queen’sConnects 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.

**YEAR IV**
- Consider joining professional associations like the Canadian Mathematical Society or the Canadian Applied and Industrial Mathematics Society.
- Join groups on LinkedIn reflecting specific careers or topics of interest.

**ENGAGE WITH YOUR COMMUNITY**

**YEAR I**
- 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.

**YEAR II**
- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.

**YEAR III**
- Do research outside the university, such as internships, short-term research, or working in industry.
- 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.

**YEAR IV**
- Consider joining professional associations like the Canadian Mathematical Society or the Canadian Applied and Industrial Mathematics Society.
- Join groups on LinkedIn reflecting specific careers or topics of interest.

**LAUNCH YOUR CAREER**

**YEAR I**
- Finding career fit starts with knowing yourself! Take a Career Services workshop or meet with a career counselor for help. Check our books like 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 labour market websites.
- Stay on the lookout for special events like the School of Graduate Studies Career Week to explore.

**YEAR II**
- Start building your teaching portfolio including student evaluations, and seeking mentorship.
- Explore different careers of interest by reading alumni profiles on the SGS website, and using Queen’sConnects on LinkedIn to connect with Queen’s alumni, or find alumni in various careers through Ask an Alum! For more information check out Career Cruising.
- Investigate requirements for professional positions or other opportunities related to careers of interest.

**YEAR III**
- Participate in hiring committees and attend job talks. Research academic careers of interest. Craft your CV and job application materials.
- Start focusing on non-academic areas of interest. Research organizations of interest and start putting together your resume for potential positions of interest.

**YEAR IV**
- Build connections with faculty outside of your department. Pursue interviews for faculty positions and apply for post-doc fellowships and positions.
- Apply to jobs or make plans for other adventures. Get help from Career Services with job searching, resumes, or interviews.

**WHERE CAN I GO?**

A PhD 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!