Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
• Honours undergraduate degree in Science or Applied Science and Engineering.
• Grade requirements: Minimum second class standing in undergraduate degree.

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 School of Graduate Studies requires the following minimum scores: TOEFL (paper-based): 550, (internet-based): 80, 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: February 15th.
• Notification of acceptance: 4 weeks after the full application has been received.

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

What about FUNDING?

MSc students in Physics receive minimum funding of $21,820 per year for the two years of the program. This basic level funding consists of graduate awards, school support, external scholarships, internal fellowships and bursaries, teaching assistantships, and research grants.

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.

SOURCES OF FUNDS
• Scholarships, internal fellowships and bursaries, teaching assistantships, and research grants.
• Awards and bursaries from the Physics, Engineering and Astronomy Graduate Studies Office.
• Awards and bursaries from Physics and Astronomy faculty and programs.
• Awards and bursaries from external sources.

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 150 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.

Why GRADUATE STUDIES IN PHYSICS, ENGINEERING PHYSICS & ASTRONOMY?

Our department provides exciting opportunities for graduate students to study in many stimulating research environments. In addition to a large number of high-profile professors, we have recently recruited many new world-class physicists who are setting up exceptional research programs in cutting-edge areas of theoretical, applied and experimental physics. In 2016 we had a record intake of excellent new graduate students, bringing our department total to over 75 Canadian and International students.

Why QUEEN’S?

The Department of Physics at Queen’s University is one of the leading Canadian research institutes in Physics. Our faculty includes high-profile, world-class physicists who work on cutting edge areas of theoretical, applied and experimental physics. Our staff and students carry out their research on campus as well as at external facilities including some of the largest astronomical and astroparticle observations in the world, such as the Gemini Observatory in Hawaii, the Sudbury Neutrino Laboratory (SNOLAB), and the High Performance Computing Virtual Lab (HPCVL supercomputer).

Program STRUCTURE

MSc (2 years): course work, research project, thesis & defense.

HABITAT

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 GSS HABITAT for available resources.

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.

School of Graduate Studies

http://www.queensu.ca/sgs
**Physics, Engineering Physics & Astronomy MSc MAP**

**GETTING STARTED**

- Achieve your academic goals
  - Start with key priorities like developing your relationship with your supervisor, form 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.

- Build skills and experience
  - Consider positions in student services, the SOPS, or media outlets like the Queen’s Journal, CFRC, and the SGS Blog for more ideas.
  - Serve on departmental, faculty, or university committees. Talk to the Society of Graduate & Professional Students for tips on getting involved.
  - Check out professional development workshops from Expanding Horizons and the Department of Mathematics and Statistics.

- Engage with your community
  - Explore how you can connect with your community through experiential opportunities on- or off-campus.
  - Consider volunteering with different community organizations, such as Martha’s Table, or Loving Spoonful.
  - Take advantage of the facilities linked to the department, including the Cancer Centre of Southeastern Ontario, the Sudbury Neutrino Observatory (SNOLAB), the Kingston Nano-Fabrication Laboratory (KNFL), and more.

- Launch your career
  - Finding a career that fits starts with knowing yourself. Get help by taking a Career Services career planning workshop or meeting with a career counsellor. Check out books like So What Are You Going to do With That? or Planning a Scientific Career in Industry 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 Graduate Student Career Week to explore your career pathways.
  - Check admission test deadlines if needed for further studies.

**INTERMEDIATE STAGE**

- Achieve your academic goals
  - Complete your coursework; begin to research and write your thesis.

- Maximize research impact
  - Attend or present at a graduate conference such as the High Performing Computing Symposium.

- Build skills and experience
  - Start keeping an eporfolio of your skills, experiences and competencies.
  - Use a Research Assistant or Teaching Assistant position to develop your research or teaching skills.

- Engage with your community
  - Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups like Material Matters.

- Launch your career
  - 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.
  - Check out the free online modules at Diversity Learning or the MyGradSkills tool 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.

**WRAPPING UP**

- Achieve your academic goals
  - Complete and defend your thesis.

- Maximize research impact
  - Consider publication options for your research.

- Build skills and experience
  - 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.

- Engage with your community
  - Check out opportunities for extraining through CTL, Expanding Horizons, Mitacs, or other sources to boost your skills.

- Launch your career
  - 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.

- WHAT WILL I LEARN?

  - A graduate degree in Physics, Engineering Physics & Astronomy 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: 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 Physics, Engineering Physics & Astronomy 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 and research
    - Consulting
    - Medical technologies: radiation physics, x-rays physics
    - Renewable energy
    - Technology sector

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