Physics at Queen's combines high-calibre research with an intermediate-scale learning setting, enabling attention and care towards undergraduate teaching as well as exposure to a broad range of topics and expertise. Our students will learn in an engaging environment with the opportunity to conduct interdisciplinary research in state-of-the-art laboratories, and work on projects involving international collaborators such as the experiments in dark matter and neutrinos happening below the surface of the Earth at the Sudbury Neutrino Observatory.

**TOP 5 REASONS** to study **PHYSICS AND ASTRONOMY**

1. The department is one of Canada’s leading teaching and research institutes in Physics and Astronomy.
2. Award-winning physics educators such as 3M National Teaching Fellow James Fraser.
3. Our internship program (QUIP) offers a wide range of careers to explore and companies to learn from.
4. Brand new astroparticle physics institute named after Queen’s Nobel Prize Laureate Art McDonald.
5. 25+ summer research assistant positions offered by the department to students every summer.

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**ALUMNI JOBS**

- **11%** of alumni work in **GOVERNMENT**
- **18%** of alumni work in **TECHNOLOGY**
- **18%** of alumni work in **BUSINESS & LAW**
- **31%** of alumni work in **EDUCATION & RESEARCH**

**2021-22 major thresholds**

Thresholds are made on a competitive basis and are updated annually. To see the thresholds for all programs as well as the latest information, please visit quartsci.com/planselection

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**Acquire Skills. Gain Experience. Go Global.**

That is a degree from Queen’s.
In first year you will have the chance to explore the foundations of Physics in biology, chemistry, math and geology along with some electives.

Attend Majors Night in the Winter term to learn more about Plan options.

Start going deeper into the discipline of Physics, while considering a minor and/or certificate such as Global Action and Engagement. Attend Degree + in the Fall term to learn more about Certificates and Internship options.

Want to make sure your academics are where you want them to be? Visit SASS (Student Academic Support Services) and the Writing Centre for some help.

A chance to start grouping courses in areas of interest, or to keep it more general and explore many areas of Physics. Meet with an Academic Advisor to make sure you are on track and have planned out your courses for next year.

Join teams or clubs on campus such as Queen’s Astronomy Club, Queen’s University Experimental Sustainability Team (QUEST), Queen’s Space Engineering Team (QSET), or Queen’s Solar Design Team.

See the AMS Clubs Directory or the Queen’s Get Involved page for more ideas.

Look into summer jobs by talking to the department or Career Services about work through SWEP or Work-Study.

Consider entrepreneurial opportunities via programs like the Queen’s Innovation Connector Summer Initiative (QICSI).

Consider internships. Investigate research USRA, or research Physics s Observ.

Volunteer on or off-campus with different community organizations such as Science Rendezvous or Let’s Talk Science. Consider joining an intramural sport or an athletics team. Off-campus community organizations welcome Queen’s students – see what’s out there!

Get involved with the Departmental Student Council (DSC). Connect with professors at socials or attend departmental public lectures.

Start or continue volunteering with organizations such as Women in Science and Engineering (WISE).

Do large careers c Queen’s network. Connect DSC. Att about cl

Prepare for work or studies in a multi-cultural environment by taking QUIC’s Intercultural Competency Certificate, and research possible immigration regulations.

Speak to a QUIC advisor to get involved in their programs, events, and training opportunities.

Is an exchange in your future? Start thinking about where you would like to study abroad. Apply in January for a third year exchange through the International Programs Office.

Physics research is often international and collaborative. Pursue summer research with faculty members to explore those global connections.

Build your intercultural competence by getting involved with other cultures or by practicing or improving your language skills.

Grappling with program decisions? Go to Majors Night or get some help wondering about career options from Career Services.

Build your transferrable skills in time management, organization, writing and more with Student Academic Success Services.

Explore different careers of interest by reading books in the Career Services Career Advising and Resource Area, such as Alternative Careers in Science. For more information check out Career Cruising or by finding and connecting with alumni on LinkedIn.

Start focused academic needed, LSAT or School fi

Visit careers.queensu.ca/majormaps for the online version with links!
A chance to start grouping courses in areas of interest, or to keep it more general and explore many areas of Physics. Meet with an Academic Advisor to make sure you are on track and have planned out your courses for your major and your optional minor and/or certificate(s).

In fourth year you will have the chance to participate in research-based courses that can lead to Graduate School or to your future career path. Make sure to finish up all your courses for the latest information.

What will I learn?
A degree in Physics can equip you with:
• Knowledge of physics theories and mathematical models
• Proficiency in mathematics
• Facility for quantitative mathematical and computational analysis
• Experience with laboratory equipment
• Design experiments and develop and write research proposals
• Review scientific literature
• Draw conclusions from data and evaluate sources of error
• Explain technical information clearly in writing and verbal communication
• Use statistical software
• Adopt a systematic, analytical approach to problems

Where can I go?
A degree in Physics can take your career in many directions. Many students choose to continue their academic inquiry with a Master’s. Our students are equipped with a strong foundation for careers in:
• Aerospace
• Astrophysics
• Computer simulations
• Forensic science
• Geophysics
• Imaging
• Nanoscience
• Photonics
• Planetary science
• Radiology
• Remote sensing
• Robotics
• Space science
• Technology industry

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

Consider applying to do a 12-16 month QUIP internship between your third and fourth year.

Investigate requirements for full-time jobs or other opportunities related to careers of interest. Assess what experience you’re lacking and fill in gaps with volunteering, clubs, or internships – check out the Career Services skills workshop for help.

Check out Inquiry@Queen’s to present your past summer research work.

Investigate off-campus summer jobs involving research (such as at SNOLAB). Apply for NSERC TA, or directly to individual faculty members and research groups in Physics and Astronomy. Many students volunteer with the on-campus observatory in Ellis Hall.

Consider joining professional associations like the Canadian Association of Physicists (CAP) or the Canadian Astronomical Society (CASCA).

International students interested in staying in Canada can speak with an International Student Advisor.

Apply to jobs or future education, or make plans for other adventures. Get help from Career Services with job searching, resumes, interviews, Grad School applications, or other decisions.

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

For over 175 years, our community has been more than a collection of bright minds – Queen's has attracted students with an ambitious spirit. Queen's has the highest retention rates, the highest graduation rates, and one of the highest employment rates among recent graduates. We are a research intensive university focused on the undergraduate experience. The BBC has identified Kingston as one of the GREATEST UNIVERSITY TOWNS in the world – and it is often awarded the safest city in Canada. It is a university city at the core; just a quick drive to Toronto, Montreal, Ottawa and even New York. A university with more clubs per capita than any other university in Canada, and a city with more restaurants per capita than any other city in North America – you will have the experience of a lifetime at Queen's – and graduate with a degree that is globally recognized among the best.

We're closer than you think.

For more information, contact quip@queensu.ca or visit the Program Website.