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.

**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

**alumni STORY**

“For me, the community within the Physics Department was by far the best aspect of studying Physics at Queen’s. The engaging instructors, knowledgeable technologists, helpful administrative and support staff, and my collaborative peers all contributed to my learning in the most positive way.”

-Kate Fenwick, BScH ’17

**2018-19 thresholds**

- **2.7 cGPA** AUTOMATIC ACCEPTANCE min B- in PHYS 10#
- PENDING LIST min pass in PHYS 10#

*Thresholds are made on a competitive basis and are updated annually. For the latest information please visit: QUartscl.com

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**DEPARTMENT OF PHYSICS, ENGINEERING PHYSICS AND ASTRONOMY**

Faculty of Arts and Science
Stirling Hall
64 Bader Lane
613-533-2707
queensu.ca/physics
In first year you will have the chance to explore the foundations of Physics in biology, chemistry, geography and geology along with some electives. See the back page for specific courses to consider. Attend Majors Night in the Winter term to learn more about Plan options.

In second year you will start going deeper into the discipline of Physics, while considering a 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 — for some ideas, see the back page.

Consider applying to do a 12-16 month QUIP internship between your third and fourth year. Investigate off-campus summer jobs involving research (such as at SNOLAB). Apply for NSERC USRA, or directly to individual faculty members and research groups in Physics and Astronomy. Many Physics students volunteer with the on-campus Observatory in Ellis Hall.

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.

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 targeted networking with alumni working in careers of interest by joining the LinkedIn group Queen’s Connects. Check out Career Services networking workshops. Connect with professors at events hosted by the DSC. Attend the departmental colloquium to learn about current research.

International students interested in staying in Canada can speak with an International Student Advisor. Consider joining professional associations like the Canadian Association of Physicists (CAP) or the Canadian Astronomical Society (CASCA).

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.

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.

Taking time to explore career options, build experience and network can help you have a smooth transition to the world of work after graduation.
PHYSICS
Specialization, Bachelor of Science (Honours) | degree PLAN

Sample Year by Year

1ST YEAR
- PHYS 104/6.0 or PHYS 106/6.0
- MATH 111/6.0 or MATH 110/6.0
- 6.0 units from MATH 120/6.0, MATH 121/6.0, (MATH 123/3.0 and MATH 124/3.0)
- CHEM 112/6.0
- 6.0 units of electives

2ND YEAR
- PHYS 206/3.0
- PHYS 212/3.0
- PHYS 213/3.0
- PHYS 239/3.0
- PHYS 242/3.0
- PHYS 250/3.0
- MATH 221/3.0 or MATH 280/3.0
- MATH 225/3.0 or MATH 231/3.0
- 6.0 units of electives

3RD YEAR
- PHYS 316/3.0
- PHYS 317/3.0
- PHYS 321/3.0
- PHYS 344/3.0
- PHYS 345/3.0
- PHYS 350/6.0
- PHYS 372/3.0
- 6.0 units of electives

4TH YEAR
- PHYS 432/3.0
- PHYS 453/3.0
- PHYS 490/3.0
- PHYS 590/6.0
- PHYS 444/3.0 or PHYS 472/3.0
- PHYS 480/3.0
- 6.0 units from PHYS at the 400 level or above
- 3.0 units of electives

Note that degree requirements are revised regularly. The most current requirements, including course lists and options, are found in the Academic Calendar at: QUartsci.com/academic-calendar