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 318/3.0
- PHYS 321/3.0
- PHYS 344/3.0
- PHYS 345/3.0
- PHYS 350/3.0
- PHYS 372/3.0
- 6.0 units of electives

4TH YEAR
- PHYS 432/3.0
- PHYS 433/3.0
- PHYS 490/3.0
- PHYS 490/3.0
- PHYS 490/6.0
- PHYS 494/3.0 or PHYS 472/3.0
- PHYS 490/3.0
- 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: QUartsu.com/academic-calendar

PHYSICS
Specialization (Science) Bachelor of Science (Honours)

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

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

2018-19 thresholds
2.7 cGPA

ALUMNI JOBS

Add a CERTIFICATE to your degree
Employment Relations
Entrepreneurship, Innovation and Creativity
Disability and Physical Activity
French for Professionals
Geographic Information Science
Global Action and Engagement
Indigenous Languages and Cultures
International Studies
Media Studies
Sexual and Gender Diversity
Urban Planning Studies

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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.

In 2nd year you will be going deeper into the discipline of Physics, while considering a certificate such as Global Action and Engagement. Attend the Degree Fair 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.

In 3rd year you have the chance to start grouping courses in areas of interest, or to keep it more general and explore many areas of Physics. Meet with an Advisor to make sure you are on track and have planned out your courses for next year — for some ideas, see the back page.

In 4th 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 your degree and your optional certificate(s).

What will I learn?
A degree in Physics can equip you with valuable and versatile skills, such as:
• 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.