How to use this map
Use the 5 rows of the map to explore possibilities and plan for success in the five overlapping areas of career and academics. The map just offers suggestions – you don’t have to do it all! To make your own custom map, use the My Major Map tool.

Get started thinking about the future now – where do you want to go after your degree? Having tentative goals (like careers or grad school) while working through your degree can help with short-term decisions about courses and experiences, but also help you keep motivated for success.

Get the help you need
Queen’s provides you with a broad range of support services from your first point of contact with the university through to graduation. At Queen’s, you are never alone. We have many offices dedicated to helping you learn, think and do.

Ranging from help with academics and careers, to physical, emotional, or spiritual resources – our welcoming living and learning environment offers the programs and services you need to be successful, both academically and personally, and Queen’s wants you to succeed! Check out the Student Affairs website for available resources.

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

Why study in Kingston?
For 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 us as one of the GREATEST UNIVERSITY TOWNS in the world – and is often awarded the safest city in Canada. We are a university city at the core; just a quick drive to Toronto, Montreal, Ottawa and even New York. A university with more restaurants per capita and 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.

Acquire Skills. Gain Experience. Go Global. That is a degree from Queen’s.
Engineering Physics MAJOR MAP

BACHELOR OF APPLIED SCIENCE | BACHELOR OF APPLIED SCIENCE WITH PROFESSIONAL INTERNSHIP

2018-2019

1ST YEAR

GET THE COURSES YOU NEED

- Queen’s Engineering first year is common – courses include: Physics, Chemistry, Calculus, Algebra, Graphics, Computing and Earth Systems Engineering.
- Also APSC100, the entry level course in our Engineering Design and Practice Sequence (EDPS), focusing on problem solving, experimentation principles and finishing off with a team-based engineering project.
- Discipline selection will take place in February!

GET RELEVANT EXPERIENCE

- Join teams or clubs on campus, or an engineering design team such as Queen’s University Experiential Sustainability Team, Queen’s Space Engineering Team, Queen’s Solar Design Team, and the Mostly Autonomous Sailboat Team.
- See the AMS Clubs Directory or the Queen’s Get Involved page for more ideas.

GET CONNECTED WITH THE COMMUNITY

- Volunteer on or off-campus with different community organizations, such as Let’s Talk Science (LTS), Women in Science and Engineering, Science Rendezvous, and Engineers without Borders (EWB).

GET THINKING GLOBALLY

- The Queen’s University International Centre is your first stop to learn how to internationalize your degree or to leverage your existing cross-cultural experience.
- Speak to a QUIC advisor or get involved in their programs, events and training opportunities.

GET READY FOR LIFE AFTER GRADUATION

- Grappling with program decisions? Go to the Orientation Evenings held by different Engineering departments and attend the various Career Fairs during the year.
- Get some help deciding by visiting Career Services.

2ND YEAR

- You will take a second engineering design course – APSC 200 - where we connect the physics you learn to the technology that helps society. More hands-on experience comes in laboratory and data analysis classes.
- You start taking courses in your option: Mechanical, Materials, Electrical or Computer engineering alongside your courses in physics.

3RD YEAR

- Courses deepen your knowledge of physics from both a theoretical and practical side. Your third EDPS design course (ENPH 334) deepens your ability to work as a team taking on technical challenges.
- Take 5-6 courses with engineering students in your chosen option. Courses range from digital communications to materials processing. From operating systems to heat transfer - depending on your chosen option.
- Consider applying to the Accelerated Master's program. In this program, students start research in the summer after their third year, and take graduate courses concurrently with the fourth year program.

4TH OR FINAL YEAR

- All Eng Phys students participate in the “capstone” EDPS team-based project course – ENPH454, in addition to an individual engineering thesis, an advanced laboratory course, and a high-level electromagnetic theory course.
- Choose technical elective courses from a huge range, including Laser Optics, Robotics, Computer Vision, Nuclear Reactors, Aerodynamics and General Relativity.

Employability skills

Your time at Queen’s will give you valuable skills to boost your employability, including:
- Proficiency in mathematics and numerical modeling with courses in math and physics
- Time and resource management – taught formally in class and then applied in your projects
- Work independently and in a team on a project – a group design project is undertaken every year and a thesis in the final year
- Able to solve complex problems using your broad scientific knowledge
- You gain practical skills as an engineer, and back them up with the deep knowledge of a scientist
- Ability to make careful measurements with sophisticated equipment in laboratory classes
- Proficiency with modern physics allowing you to work with tomorrow’s technologies

Where could I go after graduation?

- Aerospace engineer
- Automotive industry
- Astrophysics
- Atmospheric science
- Biophysics
- Computer engineering
- Energy (nuclear, solar, wind, etc.)
- Environmental management
- Financial modelling
- Forensic science
- Management consulting
- Medicine
- Nanotechnology
- Nuclear engineering
- Oceanography
- Semiconductors and electronics
- Software engineering

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

*some careers may require additional training. linked careers are only suggestions.

Visit careers.queensu.ca/majormap for the online version with links!