Succeed in the workplace

What employers want
The Canadian Council of Chief Executives list the top 6 skills sought by employers as:
1. People skills
2. Communication skills
3. Problem-solving skills
4. Analytical abilities
5. Leadership skills
6. Industry-specific knowledge

Take the time to think about the unique skills you have developed at Queen’s, starting with the skills list here for ideas. Explaining your strengths with compelling examples will be important for applications to employers and further education. For help, check out the Career Services skills workshop.

What can I learn studying ELECTRICAL ENGINEERING?
- Understanding of electronic circuit design, network analysis and object-oriented programming
- Data analysis skills - use current software to analyze data and model processes
- Proficiency in mathematics
- Attention to detail
- Research skills - conduct scientific research and analyze quantitative information
- Problem solving - approach problems from different perspectives and analyze individual facets of a problem
- Ability to work independently and in a team on a project
- Oral and written communication - write clearly on technical topics and give presentations
- Time and resource management

Get started thinking about the future now – consider how you can help with short-term decisions about school while working through your degree.

Degree OPTIONS
Bachelor of Science in Engineering with Professional Internship
- Electromechanical Engineering
- Digital and Information Systems
- Electrical & Computer Engineering
- Mechanical Engineering
- Civil Engineering
- Environmental Engineering
- Mining Engineering
- Materials Engineering

A Common START
Queen’s is unique in offering a common First Year along with an open discipline choice. When you do choose your program, you don’t have to worry about caps or quotas. Provided you pass all of your First Year courses, you are guaranteed a place in your engineering program of choice. Queen’s also offers J-Section, a special extended program for students struggling with First Year courses. Take things at a slower pace and recover in time for Second Year.

Course HIGHLIGHTS
- Electrical Engineering students have the opportunity to take a wide range of technical courses to help prepare them for the many possible career destinations available. Such courses include:
  - Biomedical Signal and Image Processing
  - Introduction to Robotics
  - Bioinformatic Analytics
  - Fiber Optic Communications
  - Machine Vision
  - Microwave and RF Circuits and Systems
  - Energy and Power Systems
  - Wireless Communications

ECE - INNOVATION STREAM
Consider Queen’s Electrical & Computer Innovation Stream, focused on developing entrepreneurial skills, alongside the in-depth, world-class technical education that is the hallmark of Queen’s Engineering. Students apply directly from OUAC with admission requirements for ECEi being the same as QE.

With admission limited to 50 students, you will receive an enriched curriculum that builds on Engineering’s common first year, participate in team-based learning that focuses on product development and prototype demonstration, and network with like-minded students and present your unique ideas. If you pass all of your first year courses you are guaranteed a place in 2nd year in either the Electrical Engineering Innovation (EEi) stream or Computer Engineering Innovation (CEi) stream.

Electrical and Computer Engineering MAJOR MAP

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.

A balanced approach leads to long-term success. While you will learn a lot from your studies, taking time to get relevant experience outside of the classroom, build your network, and gain international experience, will position you to be more competitive in your job search or grad school applications.

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.
1ST YEAR

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!

2ND YEAR


You will take the second EDPS course – APSC200, plus one Complementary Studies course. EEi students take Introduction to Business for Entrepreneurs as their Complementary Studies (CS) course.

3RD YEAR


You will also need to take 2 Technical Electives plus one CS course. For EEi, Entrepreneurial Sales and Marketing, and Financing New Ventures are required CS courses.

4TH OR FINAL YEAR

All Electrical Engineering students follow up their ELEC 390 course with the Electrical Engineering Project course (ELEC 490). EEi students follow up their Entrepreneurial ECE Design course with the Entrepreneurial Electrical Engineering Project.

You will also need to choose approximately 7-8 Technical Electives (totaling 21.25 units), plus one Complimentary Studies course.

For EEi, this Complimentary Studies course is Pitching and Launching your Venture.

Where could I go after graduation?

- Advertising
- Air traffic control architecture
- Aviation and aerospace
- Banking
- Biotechnology
- Business administration
- Communications technology
- Component design engineer
- Consumer electronics
- Data processing
- Digital design
- Disaster relief
- Education
- Electrical engineering
- Environmental sustainability
- Fibre and laser electro-optics
- Game development/design
- Information architecture
- International development
- Internet and computer technologies
- Manufacturing
- Medicine
- Navigations
- Patent law
- Product specialist
- Public administration
- Public and private research
- Resource management
- Robotics
- Security services
- Software design

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.

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