

# Civil Engineering

## Get to know

### CIVIL ENGINEERING

Civil Engineers create the infrastructure of society: homes, schools, office buildings, highways, bridges, subway systems, airports, river and coastal protection, green landfills, water and wastewater treatment plants. Are you concerned about climate change? In this program you will learn how to plan, design, build and maintain Civil and natural systems, and addressing climate change impacts. As part of its real-world preparation, this innovative program emphasizes self-learning, teamwork, communication, leadership and problem solving. Courses and electives are grouped into structural, environmental, hydrotechnical, and geotechnical streams.

### Degree OPTIONS

Bachelor of Applied Science in Engineering

Bachelor of Applied Science in Engineering with Professional

Internship

Specialization in Structural Design, Geotechnical Engineering, Hydraulics, and Environmental Engineering



"We envision the nourishment of a naturally-developing thread in our program which is focused on the sustainability of both the natural and built environment."

### Queen's ADMISSIONS

Students apply to Queen's Engineering (QE) through the OUAC (Ontario University Application Centre) website. Secondary School prerequisites include five 4U and 4M courses, one of which must be English 4U. Calculus and Vectors 4U, Advanced Functions 4U, Chemistry 4U, and Physics 4U are all required. A final competitive minimum grade of 80% must be obtained for all courses. Applicants outside of Ontario may have additional requirements.

### A Common START

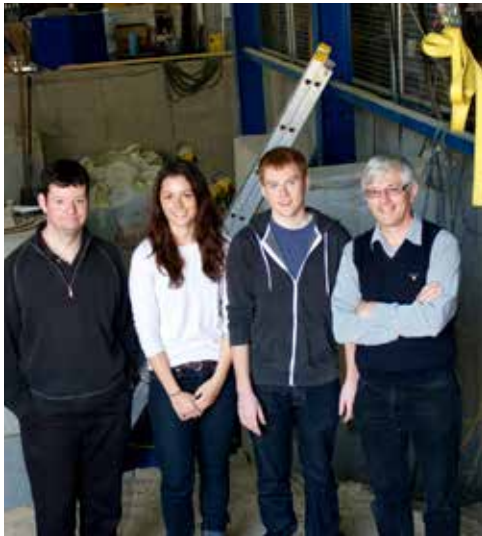
Queen's is unique in offering a common first year along with an open discipline choice. When you do choose your program, you don't have to worry about caps or quotas. Provided you pass all of your first year courses, you are guaranteed a place in your engineering program of choice. Queen's also offers Section 900, 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

Civil 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:

- Geotechnical Engineering
- Infrastructure Rehabilitation
- Reinforced Concrete Design
- Geoenvironmental Design
- River Engineering
- Environmental Engineering
- Groundwater Engineering and Subsurface Contamination
- Water and Wastewater Engineering, Municipal Hydraulics.



Acquire Skills. Gain Experience. Go Global.

That is a degree from Queen's.

[civil.queensu.ca](http://civil.queensu.ca)

# Civil Engineering MAJOR MAP

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



CONSIDER A 12-16 MONTH QUIP INTERNSHIP

**Employability skills**  
Your time at Queen's will give you valuable skills to boost your employability, including:

- Knowledge of civil engineering methods and theory
- Apply principles of physics and mathematics to the design of physical environments such as bridges, buildings, and dams
- Knowledge of the interactions among land use, water use, and environment quality
- Work independently and become a life-long learner
- Team work - work with other students on a project
- Oral and written communication - engineering report writing skills and presentation skills
- Leadership
- Time management and organization – manage several ongoing projects

**Where could I go after graduation?**

- Archaeology
- Architecture
- Environmental engineering
- Design engineer
- Geographic information systems
- Geomatics
- Industrial engineering
- International development
- Landscape architecture
- Mapping, surveying & cartography
- Materials engineering
- Mining engineering
- Occupational health and safety
- Public administration
- Real estate
- Strategic planning
- Structural engineer
- Water resources engineering
- Urban and regional planning

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. Listed careers are only suggestions.

**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.

# Civil Engineering



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. Queen's wants you to succeed! Check out the [Student Affairs website](#) for available resources.



DEPARTMENT OF  
CIVIL  
ENGINEERING

Faculty of Engineering and Applied Science

Ellis Hall  
58 University Avenue  
613.533.2122  
civil.queensu.ca

# QUIP QUEEN'S UNDERGRADUATE INTERNSHIP PROGRAM

**START DATES**  
in May, September,  
or January

**POSITIONS**  
are paid and  
full-time

**WORK TERMS**  
are 12-16 months  
long

## PROGRAM OVERVIEW

- Graduate with "Professional Internship" on your degree.
- Learn about current advances, practices and technologies in business and industry.
- Test drive a career, earn a competitive salary, and get real world experience.

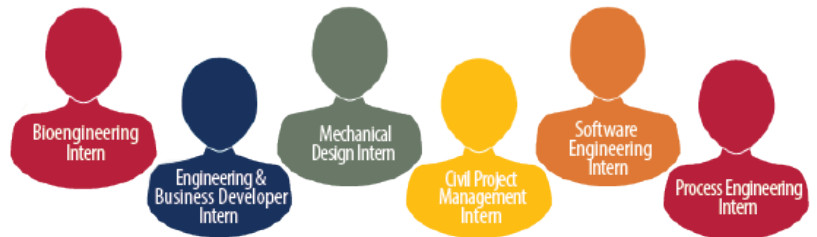
## ELIGIBILITY

- 2nd or 3rd Year Students
- Minimum GPA of 1.9

## WHY QUIP?

- Gain a year of career-related work experience.
- Build network connections.
- Receive support from Queen's staff in job search and during internship.

## SAMPLE PAST INTERNSHIPS



For more information, contact [quip@queensu.ca](mailto:quip@queensu.ca) or visit the [Program Website](#).

## 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 identified as 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. At a university with more clubs per capita than any other university in Canada, and in 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

