



Queen's
UNIVERSITY

Applied Science

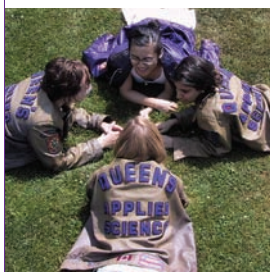
Engineering at Queen's



create

collaborate

communicate



Engineering at Queen's – The Faculty of Applied Science

Sure, an engineering degree from Queen's attracts attention on a resume. But life as an engineering student at Queen's will get *your* attention.

Your professors are experienced in the science of effective teaching. They are sought-after researchers and engineers meeting real-world challenges. They deliver an innovative curriculum that has punched holes in the old fences between written theory and get-out-and-do-it experience. You graduate with solid know-how, as well as sought-after professional skills.

The facilities are so ahead of the curve that they also do some of the teaching, via see-through structures and thousands of online sensors. The main engineering building, Beamish-Munro Hall is home to the Integrated Learning Centre, and is unique to North America.

Real-world connections – Queen's engineering stays in the loop with leading-edge research that brings industry to our door. Professionals in the field have questions, and Queen's researchers have an enviable record of producing answers. The faculty's first-hand knowledge of new challenges and issues in the field help keep the curriculum current.

Engineering Degrees

- chemical engineering
- civil engineering
- computer engineering
- electrical engineering
- mechanical engineering
- mining engineering

Can't choose between engineering and science? You don't have to. You can combine these interests through one of Queen's signature Engineering Sciences or Mathematics specializations.

Bringing these two fields together opens up a wide array of career options.

Engineering Degrees with a focus on Engineering Sciences and Mathematics

- engineering chemistry
- engineering physics
- geological engineering
- mathematics and engineering

It's no accident that Queen's has the highest percentage of graduating students in the Faculty of Applied Sciences than any other engineering school in Ontario.

Come to Queen's to maximize your opportunities and enjoy a career as a world-class engineer.

FLEXIBLE – def; *susceptible of modification or adaptation*

Science is rooted in research and uses experimentation to uncover new information about the physical world.

Engineering applies this scientific knowledge, relying both on research and design capability, to create useful products and services.

purple!

What is its significance?
In the late 1800's many of the engineers in the British Empire, including Canada, were enlisted in either the Navy or the Army. At this time in history a coloured stripe was used to identify each branch of a service unit. The colour assigned to engineers was purple.

This practice of wearing purple was popularized by the tale of the engineers aboard the Titanic. According to stories, the engineers stayed aboard the ship until it sank, trying to delay the sinking so that more people could escape. Due to their brave sacrifice, King George V decreed that purple be the official colour of the British Marine engineers. Because of Canada's and Queen's University's strong historic connections with the United Kingdom, the association with the colour purple was perpetuated as part of our heritage, and continues to be associated with the Queen's Engineers today.

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Where Theory Meets Practice: Integrated Learning

Queen's shows you the big picture. It's called Integrated Learning and it took committed research to develop this innovative teaching strategy.

What exactly does it integrate?

All your knowledge in math, sciences, computing, and engineering, and how it fits together in practice.

Your particular interest and how it intersects with other science, engineering, and humanities disciplines.

The needs of society and the community and how they fit into the university environment.

Knowledge is just the beginning.

Employers need leadership skills, adaptive thinking, independent problem solving, and skilled communicators who thrive on teamwork.

Collaborating with groups of people with individual strengths, working styles and backgrounds is a reality in most workplaces.

That is why Queen's uses real-world engineering concepts, open-ended design projects, and team-based problem solving in every aspect of your education.

When you earn a Queen's engineering degree, you hit the ground running.



The Integrated Learning Centre – it's alive!

With thousands of sensors reporting hourly data online, state-of-the-art Beamish-Munro Hall tells you how it's feeling – better than your best friend. Better than any building in North America.

From its penthouse mechanical showroom to its three-story high living bio-wall, to the cut-away viewing windows showing inner structures, the Integrated Learning Centre (ILC) promotes and inspires mergers of theory and practice. Beamish-Munro Hall is a green building, designed to demonstrate sustainability concepts in use.

Example: Students use the building's capabilities for projects on power-consumption comparisons and motion-activated lighting systems, designing an intelligent-control system for window blinds, and monitoring the performance of various glazing on high-efficiency windows – to name a few.

No lecture halls here. Just everything you need to follow your curiosity. Unique spaces equipped for designing, debating, prototyping and presenting your team projects.

Group Rooms – dozens of these internet-equipped rooms are available for booking when your team needs a private place to brainstorm.

Design Centre – workstations with the latest design software

Prototyping Centre – staff and equipment to help you manufacture the ultimate — or whatever else you design.

Multimedia Facilities – An array of audio-visual tools to help you acquire high-impact presentation skills to serve you well throughout your career.

I-Benches – These instrumented benches are the hub of laboratory work with adaptable equipment for electrical, mechanical, chemical and structural experiments.

Teaching Studios – Active, not passive, learning. Every student's bench is wired with computer and experimental equipment, allowing you to work on related designs or experiments while listening to your professor.

create. collaborate. communicate.

It's what we do here.

It's what you need out there.



Integrated Learning 101

Actually it's called **APSC 100 Practical Engineering Modules**.

It's the first-year course that launches you into realistic engineering projects. It does it so well that it won a national award for teaching excellence.

Your team gets a unique problem to solve. You're introduced to best-practice experimentation methods and design work, as well as safety, and community/societal issues. And it's here you start honing group work skills and learning how to... **create. collaborate. communicate.**

For more information on how The Integrated Learning Centre works to make Queen's engineering graduates stand out, visit livebuilding.queensu.ca.



The Tea Room

Best place to eat, meet... and experiment?

The name may be old-fashioned, but this zero-waste café in the Integrated Learning Centre is anything but. A worm composter handles all the biodegradable waste, the dishwasher is a chemical-free zone, the walls are made of sustainable materials, and coffee's cheaper if you reuse your mug. The café cleaves to an environmentally and financially sustainable business model.

Try the muffins. And while you're at it, push the button on that centre column over there, and watch the digital readout as a hydraulic head applies force to a beam.



The Life of a Queen's Engineer

University graduates usually say they learned as much outside the classroom, as inside.

Queen's grads in particular agree the life lessons learned here are one of the University's many strengths.

The University has nurtured a vibrant culture of student engagement through clubs, conferences, competitions, and volunteering, to help develop the whole person.

And with the close-knit community spirit among engineering students, the student-run Engineering Society has been able to set up a smorgasbord of clubs and activities.

What leanings do you want to explore?

Something artistic? Entrepreneurial? Humanitarian?

Still searching?

With 500 clubs on campus, and close to 40 run by the Engineering Society, you'll find something you like.

Get involved. Build your confidence. Hone your skills. Be a leader. Be a hard worker. Be a better citizen. A better future professional. A better person. Make friends. Earn respect. Respect failure. Persevere.

But always... create. collaborate. communicate.



Queen's project on international development

Fire up your inner humanitarian with these summer placements. Past projects in places like South America and India have set up computer training programs, built drinking-water systems and studied disaster areas.

Cirque – A catchy acronym for a conference that gives undergraduates the chance to get advice and insights from engineering graduates who have gone on to become leaders in industry in fields ranging from business and consulting, to law and medicine.

Science Quest – share your enthusiasm for engineering (and earn summer pay cheques) by leading school workshops and day camps for children that fire up interest in science and engineering through fun, hands-on activities.

Competitive design teams

Queen's engineers race everything from solar-powered cars, radio-controlled aircraft and robots, to concrete toboggans and SAE formula racing cars.

Serious fun.

But it's something to put on a resume too – being part of an interdisciplinary design team undertaking the planning and manufacturing processes required to bring a new product to market.

The teams have had great success. Many attend races across North America. Some, like the renowned solar car team, travel the world.



Test Drive and Customize

Get a degree (or two) your way

Would you like an economics or biology degree on the side with that engineering degree?

Want to gain a few credits and a world of experience at a university overseas?

Maybe you'd rather press pause halfway and test-drive a career with a paid workplace internship?

How you choose to complete your Queen's engineering degree is mostly up to you.

Dual Degrees

You can earn a second degree in most disciplines while earning your engineering degree. With hard work and commitment, it usually takes only an extra year to complete both degrees. The payoff is enhanced career prospects in an increasingly interdisciplinary world.

Co-Op Queen's Style

Some students choose to try out their career path or a certain industry by doing a paid internship after second or third year.

They kick the tires, so to speak, to see if it's right for them.

They graduate with quality work experience on your resume and a better idea of what career niche you want.

The Queen's Undergraduate Internship Program (QUIP) offers a 12 to 16 month internship in a professionally supervised, career-related workplace in a business or industry. It's one of the longest internships offered at the university level, and participants can gain substantial experience and make industry contacts.

A wide variety of placement is available, and when you return to Queen's your bank account is in better shape.

Queen's exchange programs

Expand your personal, professional and academic horizons by working or studying abroad.

The International Association for the Exchange of Students for Technical Experience (IAESTE) can help arrange a summer engineering job abroad.

For those who would prefer to earn some credits elsewhere, the Faculty of Applied Science has exchange agreements with universities across Canada, Europe, Great Britain, Scandinavia and Australia.

Or consider the magnificent setting of Queen's International Study Centre in Herstmonceux Castle in southern England, which offers credits in subjects such as British literature and Western European Art.

Complementary studies

Group 2 or 3 courses to form strength in the following areas:

- 1 Development Studies/Humanitarian Engineering
- 2 Environmental Studies
- 3 Economics in an Industrial World
- 4 Sociology of Science and Engineering

International Students

Queen's Applied Science students come from all over the world. For more information please visit: appsci.queensu.ca/prospective/international





Education that is About You

By choosing to pursue an engineering degree at Queen's, you statistically have one of the best chances of successful completion as compared to other universities.

More than 90 per cent of the students who enter a Queen's engineering program go on to graduate. (Council of Ontario Universities).

It's no accident.

The engineering program has been engineered for student success.

Classes that make you want to sit up front

Professors at the Faculty of Applied Science are highly trained and effective teachers, as well as internationally respected researchers. Their prowess in the classroom and the lab makes lessons come alive. And many of our best instructors teach first-year courses.

Common first-year curriculum

There are 36 options in engineering programs at Queen's.

That could be why our first-year students enjoy starting out with a common curriculum that provides exposure to all of the engineering disciplines prior to choosing the one that fits.

Midway through the year, the various engineering departments hold orientation nights to introduce you to their programs. Chat with professors and upper-year students and take your time collecting all the information you need to make the right decision.

Get the program you want – a uniquely Queen's guarantee

You are guaranteed a spot in the specialized program of your first choice once you successfully complete your first year. Queen's has no caps or quotas on upper-year enrolments.

The transition from high school

Queen's students are supported in various ways to facilitate the transition from high school to university.

Sectioned into Groups

While there are 560 first-year students, you will be sectioned into groups of 25-50 with whom you will stay all year, somewhat similar to a high school class.

Tutors

The Douglas tutorials offer free one-on-one tutoring from upper-year students, or you can opt for private, fee-based tutoring through the Engineering Society's EngLinks program.

Buddy System

The Engineering Society pairs first-year students with upper-year students for mentorship, academic help and social events.

Extended Program

Offers students who may be struggling with certain first year courses to take them at a slower pace and recover in time to progress successfully to second year.

Your Opinion – Priceless

Our professors actively seek out students' opinions and feedback about their learning experience, and use this information to improve course content and the effectiveness of their teaching.

The student-run Engineering Society's Academic Think Tank also investigates academic issues, gathers student comments and concerns, and makes recommendations to the Faculty.

Engineering Programs

Our Engineering Programs maintain their dominance with leading-edge specializations such as environmental, biochemical/biomedical, aerospace and high-tech communications.

CHEMICAL ENGINEERING

AREAS OF SPECIALIZATION

Biochemical/Biomedical

Environmental

Computer Process Control

From computer disks and pharmaceuticals, to removing contaminants from soil and creating synthetic body tissue, society relies daily on products manufactured in the chemical-process industry.

Study mathematics, chemistry, physics and biology and combine these with engineering principles. Acquire sound knowledge of chemical-process theory and practice within environmentally friendly parameters, and accumulate direct experience with chemical-process equipment and simulators.

Careers – Options span most major industries such as biotechnology, pharmaceuticals, food and agrochemical production, advanced polymeric and electronic materials, energy production and conservation, environmental protection, business analysis and consulting.

www.chemeng.queensu.ca

CIVIL ENGINEERING

AREAS OF SPECIALIZATION

Environmental

Infrastructure

We go about our lives within a physical environment created by civil engineers: homes, schools and office buildings; highways, bridges, subway systems and airports; river and coastal systems and green landfills.

Study how to plan, design and build these structures and systems with an environmentally respectful approach. As part of its real-world preparation, this innovative program emphasizes self-learning, teamwork, communication and leadership and problem solving.

You'll focus on planning, designing, building and managing the structures of civil society. You'll concentrate on the environmental impact of these activities.

Careers – Geographically diverse opportunities within government and industry, consulting and entrepreneurial work. Recent advances information technology anticipating "smart" transportation systems and structures are adding to the exciting options in civil engineering.

www.civil.queensu.ca

COMPUTER ENGINEERING

AREAS OF SPECIALIZATION

Computer Architecture
Computer Networks
Digital Systems
Microprocessors
Software Systems

The information and communications technology of our knowledge-based society places computer engineers at the hub of a computing revolution that is constantly changing the way people live and work.

Study circuits, electronics, digital logic, microprocessors, computer architecture, hardware design techniques, and master the principles of software engineering. You may choose to specialize in software engineering or complement your core knowledge with expertise in areas such as integrated circuit engineering, digital signal processing, or communications systems.

Careers – Virtually every sector taps computer engineers' ability to design and implement the hardware and software for embedded, stand-alone and networked computer systems. While many graduates work for technology companies, many others find rewarding work in business, social services, entertainment, manufacturing and health care.

www.ece.queensu.ca

ELECTRICAL ENGINEERING

AREAS OF SPECIALIZATION

Communications
Control Systems
Electronics, Power
Signal Processing

These specialists provide essential support for the conveniences and services related to electric power and communications, and take leading roles in the design of new products and services.

Study electric circuits and motors, electro-magnetics, microelectronics, signal processing, digital logic, and microprocessors. Build on a base of applied mathematics and physics, and learn to use the laws of physics that govern electrical systems to design new products and services.

Careers – Research and support roles in rapidly evolving high-technology fields such as computers, wireless and fibre-optic communications, robotics, biomedicine, transportation, alternative energy, power electronics and integrated circuit engineering.

www.ece.queensu.ca

MECHANICAL ENGINEERING

AREAS OF SPECIALIZATION

Aerospace
Mechatronics
Biomechanical
Manufacturing
Materials
Thermofluids

The domain of mechanical engineers is truly vast because they're needed wherever machines are, and at every stage – conception and analysis, consulting and design, construction and maintenance, manufacturing and management, marketing and research.

Study basic engineering courses as well as practical courses in machine design and manufacturing methods. Hands-on design is integral to this program. You may be involved in designing artificial joints, or even spacecraft, depending on your specialization. If you choose the Materials option, you'll study the exciting developments in materials and nanotechnology.

Careers – The limitless possibilities are hard to compress into a short list, but opportunities abound in vehicle and aircraft production, aerospace, medical devices, power generation, manufacturing, robotics and transportation.

me.queensu.ca

MINING ENGINEERING

AREAS OF SPECIALIZATION

Environmental
Mine-Mechanical
Mineral Processing
Mining

Aside from the plant material we harvest, all the raw material used by human society comes from minerals extracted from the earth. This program prepares you for careers in both the minerals industry and related environmental and technological fields.

Study a broad range of disciplines involved in locating, extracting, producing, refining, utilizing, reusing, recycling, and disposing of mineral and metal products and byproducts. The program teaches students how these processes can be carried out efficiently and competitively, while maintaining or improving environmental quality.

Careers – Opportunities extend beyond the traditional mining domain, and include financial management, specialized equipment design and manufacturing, recycling and sustainable development. There is also opportunity in the Mining Summer Employment Program (MISEP)

mine.queensu.ca

create. collaborate. communicate.

Engineering Sciences and Mathematics Programs

Students with both a scientist's passion for discovery, as well as an engineer's drive to design and create find a perfect fit in the Engineering Sciences and Mathematics specializations. The programs are demanding, but the payoff is a wide and varied choice of career options.

ENGINEERING CHEMISTRY

AREAS OF SPECIALIZATION

Biosciences Chemistry
Environmental Chemistry
Materials Chemistry
Process Chemistry

This is the only program of its kind in North America. It provides a deeper knowledge of chemistry than chemical engineering. While chemical engineers design and build production processes, engineering chemists are expert in the chemistry behind the process.

Study organic and experimental chemistry, reactivity principles, methods of determining structure, knowledge of chemical processes and materials at a molecular level.

Apply your knowledge of which chemical reactions produce which products, from car fuels to medicines, and be able to improve, advance and troubleshoot in the areas of process design and materials design.

Careers – This program offers a thorough grounding in chemistry and engineering. Graduates are highly sought after in the pharmaceutical, agricultural, food-product, biomedicine and environmental-protection sectors.

www.chemeng.queensu.ca

ENGINEERING PHYSICS

AREAS OF SPECIALIZATION

Mechanical
Computing
Electrical
Materials

This program applies the knowledge of fundamental physical principles underlying modern technology and processes.

Study a strategic combination of math, physics and engineering courses from a chosen specialty area. Acquire advanced problem-solving and instrumentation skills.

Apply your superior mathematical, analytical and abstract-thinking abilities to modern engineering challenges

Careers – Graduates of Queen's Engineering Physics are trained to apply their extensive knowledge in both physics and engineering to complex, real world problems and are indispensable members of many corporations and research groups. Approximately half of Engineering Physics graduates pursue graduate studies while others move directly into industry.

www.physics.queensu.ca

GEOLOGICAL ENGINEERING

AREAS OF SPECIALIZATION

Applied Geophysics
Geo-Environmental Engineering
Geotechnical Engineering
Mineral and Energy Exploration

This program applies principles and techniques of the earth sciences to tasks such as extracting mineral and energy resources, preventing soil and water contamination, managing natural hazards, and building infrastructure with, or within, earth materials.

Study physics, chemistry, applied mathematics and natural processes such as earthquakes, volcanoes, continental drift and mountain formation. Acquire field skills and training in state-of-the-art geological analysis tools.

Careers – Be at ease in the field, the lab, the office or the boardroom, working in oil, gas and mineral exploration, environmental remediation, geological software design, research and business.

geol.queensu.ca/eng_web

MATHEMATICS AND ENGINEERING

AREAS OF SPECIALIZATION

Control and Robotics
Applied Mechanics
Computing and Communication
Control and Communications

This program is the only one of its kind in Canada. It teaches highly sophisticated mathematical approaches to engineering issues.

Study pure and applied math along with engineering courses in your chosen area of specialization. Learn to analyze and solve engineering problems requiring superior math skills, such as those involving modern communications, control and mechatronic systems.

Apply your versatile skills widely, from aerospace and biomedical engineering, to finance and law.

appsci.queensu.ca/math

create. collaborate. communicate.



On the Edge: Research and Application

Researchers at the Faculty of Applied Science are leading recipients of national and international awards for advances in engineering knowledge. They attract extensive interest and financial support from government and industry, making Queen's a leader in translating research into technological innovations.

Motivated students will find challenging opportunities to be involved in research at Queen's.

The University's research excellence and industry collaboration ensure that a Queen's engineering degree is leading-edge current when you graduate.

Here's a glance at some of Queen's internationally recognized research facilities:

Human Mobility Research Centre

Investigators from the Faculty of Applied Science play a key role in this centre's development of less invasive treatments for people with mobility problems due to arthritis, osteoporosis and injury.

The centre's specialized labs support prosthesis design, bio-simulation, gait analysis and computer-enhanced surgery.

Mechanical engineers are using bio-mechanical know-how to design a new generation of artificial joints. Chemical engineering researchers are working to repair or produce functional cartilage and bones.

me.queensu.ca/hmrc

Fuel Cell Research Centre

The Queen's-Royal Military College Fuel Cell Research Centre is Canada's leading university-based research and development organization, working to advance fuel-cell capability in partnership with industry.

Fuel cells have the potential to be a significant clean-energy technology of the future, and researchers are attempting to realize the technology's full economic and environmental benefits.

The centre undertakes a range of multi-disciplinary work that builds on the demonstrated strength of engineering science at Queen's and more than 25 years of fuel-cell activities at RMC.

www.fcrc.ca



A new centre
for green
technology

Geo-Engineering Centre

A world-class team of engineers and scientists from Queen's and the Royal Military College in Kingston collaborate to work on a variety of civil, geological and mining engineering challenges. Their expertise ranges from earth chemistry and groundwater, to geo-synthetics, and geo-mechanics.

The Centre brings together government, industry, students, researchers, and professionals. It serves diverse needs, from urban infrastructure support and improving mining practices, to the safety of railway and pipeline systems, and barriers systems to contain contaminants.

The Centre also trains professionals and technologists in the field with innovative techniques for building and rehabilitating civil infrastructure.

www.geoeng.ca

Advanced Research and Innovation Institute

The Ontario government designated \$21 million in its 2007 budget to establish a new centre at Queen's, focusing on innovations in energy and environmental technologies, bio-products and bio-chemical engineering, microelectronics, green chemistry and advanced materials.

Queen's and industry researchers will collaborate in the new centre.

See also:

Centre for Water and the Environment

www.cwe.queensu.ca

Centre for Manufacturing of Advanced Ceramics and Nanomaterials

www.ceramics.queensu.ca

Power Electronics Applied Research Laboratory

www.ece.queensu.ca/directory/laboratories/pearl.html

Queen's-RMC Centre for Advanced Materials and Manufacturing

www.camm.queensu.ca

Information and Processing Communications Laboratory

ipcl.ee.queensu.ca



Diversity Matters: Women And Engineering

Queen's Faculty of Applied Science takes pride in the rich social, cultural and geographic diversity of its students.

When classmates bring wide-ranging perspectives to class and coffee-house discussions, these expand everyone's understanding.

Queen's Faculty of Applied Science has worked hard to attain the highest percentage of female students among Ontario engineering schools.

Women now comprise almost a quarter of its undergraduate students, and a third of its graduate students.

Every effort is made to ensure our engineering school is a welcoming place for women. And the faculty continues to invest in outreach and support initiatives to ensure female students and potential students are well-informed about science and engineering careers.

Outreach Initiatives

Engenuity is a weekend program that introduces engineering as a career to high-school girls through hands-on projects and experiencing aspects of engineering such as teamwork, communication and creativity.

Brainstorm is a weekend science, engineering and leadership conference for girls entering Grades 6-8.

Science Quest for Girls – A girls-only day camp with female instructors that has fun dispelling the myth that girls aren't as good at science as boys.

National Technology Youth Leadership

Conference – An annual event that exposes both male and female high-school students from across Canada to the challenges and rewards of careers in high technology and engineering.

Support Initiatives

Special Projects Officer

- a female engineer employed by the faculty to pursue projects that help create and maintain a positive climate for women interested in engineering.

National Conference for Women in Engineering

- held annually by the Queen's Engineering Society to examine issues and challenges faced by women in the engineering profession, and to allow experienced female engineers to share their insights with young women in the field.

Women in Science and Engineering (WISE), Kingston Chapter

- the Kingston branch of a national network of individuals working together to promote and support women in science and engineering

Engineering Society Equality Issues Committee

- an open committee of the Queen's Engineering Society that addresses gender issues, racism, homophobia and related matters.



A Queen's engineering degree... priceless

Financial Assistance

Ensuring that all academically qualified students can attend Queen's and complete their degrees – regardless of financial circumstances – is fundamental to what Queen's University stands for.

This University remains an established leader in the proportion of operating budget devoted to student financial assistance.

A Queen's engineering degree pays for itself many times over during a career, but absorbing the initial costs can be a challenge.

In addition to other standard sources, such as government grants and loans, or bank credit, here are two ways Queen's can help:

Scholarships

Scholarships increase as levels of academic achievements and extra-curricular performance become higher.

When you apply to Queen's you're automatically considered for grades-based entrance scholarships, many of which are renewable for four years.

Entrance scholarships range from \$1,000 to \$20,000.

Queen's scholarship awards include:

- 8 Chernoff Family Scholarships (\$48,000 – \$60,000 over four years)
- 50 Chancellor's Scholarships (total potential value \$36,000)
- Unlimited Principal's Scholarships (\$5000)
- Numerous specific entrance scholarships (\$1,000 – \$20,000 range)

Bursaries

Students who demonstrate financial need are eligible for these non-repayable grants.

There are an unlimited number of entrance bursaries, ranging from \$500 to \$6,000, for students entering Applied Science.

You can also apply for a Queen's General Bursary when you arrive on campus if you don't receive an entrance award or bursary.

Students with financial need are also given priority for part-time jobs across campus, including many positions at the Faculty of Applied Science.

Financial Assistance offerings are subject to change every year. For the most up-to-date information visit:

www.appsci.queensu.ca/financing/assistance.php



What Comes After

Surveys confirm that an engineering degree is a sound investment, providing high employment and earnings, combined with high job satisfaction.

Degree completion rate for Queen's is 91%, the highest of any engineering program in Canada.

The employment rate for Queen's engineering graduates after six months was almost 89%, and almost 96% after two years. (Council of Ontario Universities, 2003-2004)

The average salary after six months is \$51,000, and \$56,000 after two years. Fully 86% of engineers are happy with their careers, according to a 2002 survey by the Canadian Council of Professional Engineers.

With that kind of market demand, a newly graduated Queen's engineer can afford to be choosy. They are poised for engaging careers in industry, business, management, finance, government and entrepreneurial ventures. Many final-year students have jobs waiting for them before they write their last exams.

Others choose to pursue graduate studies in their particular engineering disciplines, while some opt to enter law, medicine or business.



With a Queen's engineering degree in hand,
You hit the ground running...

create. collaborate. communicate.

At Queen's Faculty of Applied Science



A Message from the Dean

As Dean of Applied Science, I am pleased that you are considering Queen's University as a place to study.

There's so much to experience at our Faculty, both inside and outside the classroom. On the academic side, we're renowned for providing challenging programs of study and opportunities for personal growth. Our curriculum and facilities are continually evolving to meet the changing needs of graduates. The Integrated Learning initiative, a cornerstone of the Queen's approach to engineering education, grew out of our recognition that students need to acquire solid professional skills in addition to their technical knowledge. We've also made it a priority to build flexibility into all our academic programs: a common first year, opportunities to pursue dual degrees, international exchanges and a co-op experience ensure that you get the most out of your degree. For those of you who are unsure about whether to choose engineering or science, I would suggest that you investigate our degree offerings that specialize in Engineering Sciences and Mathematics – several of these programs are unique in Canada. An engineering degree from Queen's will provide you with the foundations to pursue engineering while opening up many other diverse career opportunities such as research, business, law and medicine.

At Queen's, the opportunities to enrich your academic experience are limitless. Being a residential school, Queen's brings students together in an amazing educational environment where learning takes place not only in lectures and labs but also in competitive design teams, student government, music and art, clubs, sports and cultural associations. I encourage you to discover what Queen's and the Faculty of Applied Science can offer you. Sincerely,

Dr. Kimberly Woodhouse, Ph.D., P.Eng.
Dean, Faculty of Applied Science



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**Queen's University is committed to contributing
to a sustainable global environment.**