Aside from the plant material we harvest, all of 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. As a Mining Engineering student, you will study a broad range of disciplines involved in locating, extracting, producing, refining, utilizing recycling, and disposing of mineral and metal products and byproducts. The program teaches students how these processes can be carried out efficiently and competitively, with a focus on sustainability and the environment.

“Our program is designed to address the entire mine life-cycle, from exploration to mine closure and offer solutions that not only enhance the competitiveness of the mining industry but also ensures compatibility with evolving societal values.”

Degree OPTIONS

Bachelor of Science in Engineering
Bachelor of Science in Engineering with Professional Internship
Option in Mining / Minerals Processing and Environmental / Mine-Mechanical

Queen’s ADMISSIONS

Students apply to Queen’s Engineering (QE) through the OUAC (Ontario University Application Centre) website. Secondary School prerequisites include six 4U and 4M courses, one of which must be English 4U. Calculus and Vectors 4U, Chemistry 4U, and Physics 4U are all required along with one of Advanced Functions 4U, Biology 4U, Data Management 4U, Computer Science 4U, Earth and Space Science 4U. A final grade of 70% must be obtained in English 4U. 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 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

Mining 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:

- Chemical Extraction of Metals
- Mineral Industry Economics
- Mine Design and Planning
- Mining and Sustainability
- Equipment Reliability and Maintainance
- Drilling and Blasting

That is a degree from Queen’s.

mine.queensu.ca
**GET THE COURSES YOU NEED**

Queens 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 such as the Queens University Experimental Sustainability Team (QUEST).

Look in the Co-Curricular Opportunities Directory or AMS Clubs Directory for more ideas.

**GET CONNECTED WITH THE COMMUNITY**

Volunteer on or off campus with different community organizations such as Engineers without Borders (EWB).

Consider joining an intramural sports or an athletics team. Check out the Athletics & Recreation site.

**GET THINKING GLOBALLY**

The Queens 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 QUC 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.

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**1ST YEAR**

Courses include: Solid Mechanics, Differential Equations, Mining & Mineral Processing, Computer Applications & Instrumentation in Mining, Engineer ing Economics, Electric Circuits & Machines, Numerical Methods and Underground Mining. You will take the second EDPS course – APSC200.

Your other 3-4 courses depend on your option!

**2ND YEAR**

Look into summer jobs by talking to the dept. or Career Services about work through SWEP or NSERC.

Research summer job opportunities within the mining industry by contacting and attending information sessions offered by various companies.

**3RD YEAR**

Continue to search for jobs within the Mining industry. If you worked in mining last summer, try to get a job with a different company or in a different area of mining.

Consider applying to do a 12-16 month QUIP internship between your third and fourth year.

**4TH OR FINAL YEAR**

Investigate requirements for full-time jobs or other opportunities related to careers of interest.

Assess what experience you’re lacking and fill in gaps with volunteering, clubs, or internships – check out the Career Services skills workshop for help.

Take the Mine Rescue course.

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**MAJOR MAP**

**1ST YEAR**

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**2ND YEAR**


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**3RD YEAR**

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**CAREER SERVICES**

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**VISIT CAREERS.QUEENSU.CA/MAJORMAPS.HTML FOR THE ONLINE VERSION WITH LINKS!**
Mining Engineering

MAJOR MAP

How to use this map

• Got questions about careers and classes?
• Feeling a little lost or overwhelmed by choices?
• Wondering what you are “supposed” to be doing?

Use this map to plan for success in five overlapping areas of career and academic life. Each map helps you explore possibilities, set goals and track your accomplishments. To make your own custom map, use the My Major Map tool.

Don’t stress if you haven’t done all of the suggested activities. The map is not a prescription – it’s a tool for finding your own way at Queen’s.

Getting what you need to succeed in the workplace

WHAT DO EMPLOYERS WANT?

In a recent survey from the Canadian Council of Chief Executives the top 6 skills sought by employers were:

1. People skills
2. Communication skills
3. Problem-solving skills
4. Analytical abilities
5. Leadership skills
6. Industry-specific knowledge

HOW DO I GET THE SKILLS I NEED?

It is important to develop a balanced skill set – many of which you will develop during your studies. To stand out, take advantage of experiential learning through the multitude of clubs and activities in and around Queen’s. Check out the Get Relevant Experience section of this map.

WHAT CAN I LEARN STUDYING MINING ENGINEERING AT QUEEN’S?

• Proficiency in mathematics and physical sciences
• Proficiency in mining sciences
• Relevant analysis and designing skills
• Relevant work experience in mining engineering
• Working knowledge of design software for mining engineering
• Written and oral communication skills
• Time and resource management
• Ability to work independently and in a team on projects

WHAT MAKES ME SPECIAL?

No one will get exactly the same experience as you. Take the time to think about what skills you have developed to be able to best explain them with compelling examples in future applications to employers and further education. For help with this, check out the Career Services skills workshop.