

DEPARTMENT OF MINING AND MATERIALS ENGINEERING

McGill University has been home to leading research in mining and materials engineering for 135 years. The Department of Mining and Materials Engineering boasts one of McGill's most vibrant research programs, with highly-respected professors and students from around the globe. Materials Engineering research draws upon many fields to build working prototypes and processes in mineral/metal processing and advanced materials (aerospace coatings, biomaterials, nanomaterials, and electronic/energy materials). Mining engineering research strengths include mine design, planning, and optimization, orebody modelling, stochastic models and risk analysis in mine valuation, rock mechanics, and numerical modelling.

Program Information

Master of Engineering (MEng Thesis) or Master of Science (MSc Thesis)

- **Admission requirements:** Recognized undergraduate degree (BEng or BSc), or equivalent in a technical field, with a 3.0/4.0 cumulative grade point average or a 3.2/4.0 grade point average over the last two years of study.
- **Program length:** Full-time for 18-24 months (45 credits), which includes graduate coursework (12 credits), a research thesis (27 credits) and a research seminar (6 credits).

Master of Engineering (MEng Non-Thesis)

The MEng program offers students a project-based option in mining or environmental engineering.

- **Admission requirements:** Bachelor's degree (BEng or BSc), or equivalent in a technical field, with a 3.0/4.0 cumulative grade point average or a 3.2/4.0 grade point average over the last two years of study.
- **Program length:** Full-time for 18-24 months (45 credits), which includes graduate coursework (24-39 credits) and a design project (6-15 credits).

Doctor of Philosophy (PhD)

- **Admission requirements:** In addition to satisfying the requirements for MEng admission, applicants must hold a Master's degree (MEng or MSc) or equivalent in a technical field with a 3.2/4.0 cumulative grade point average. Possibility of direct entry with Bachelor's degree for exceptional candidates.
- **Program length:** Full-time for approximately 3-4 years. Students must complete 2-4 graduate courses, Research Proposal, Research Seminar and Doctoral Thesis and Defence.

Graduate Diploma in Mining Engineering

This condensed program is designed for professional engineers and scientists from industry who are seeking professional development in mining engineering in a formal education manner.

- **Admission requirements:** Bachelor's degree (BEng or BSc), or equivalent in a technical field, with a 3.0/4.0 cumulative grade point average or a 3.2/4.0 grade point average over the last two years of study.
- **Program length:** Full-time for one-year (30 credits), which includes a seminar course (6 credits), graduate coursework (18 credits) and a project (6 credits).

Admission Deadline

- For fall or summer entry, January 15 for both domestic and international students.
- For winter entry, September 1 for international students and October 15 for domestic students.

Research Areas

- Aerospace Coatings
- Automotive
- Biomaterials and Tissue Engineering
- Characterization
- Computational Thermodynamics
- Geomechanics
- Hydrothermal Processing
- Meso and Atomic Scale Modelling
- Mine Waste Management
- Mineral Processing and Hydrometallurgy
- Process Metallurgy
- Pyrometallurgy
- Stochastic Modelling
- Strategic Mine Planning and Optimization

Note: Applicants whose mother tongue is not English may be required to submit proof of competency in oral and written English (i.e. TOEFL or IELTS).

Contact

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Materials Engineering

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