# UNIVERSITY OF TORONTO ENGINEERING GRADUATE STUDIES

# DEPARTMENT OF MATERIALS SCIENCE & ENGINEERING

U of T is the top-ranked school in Canada for materials science. Learn from our world-renowned researchers to earn one of the most competitive graduate degrees in the field.

As a discipline that enables all technologies, Materials Science & Engineering at the University of Toronto is at the forefront of addressing global issues that have a direct impact on our lives. Our cutting-edge research in advanced materials provides graduates with the tools to create technological solutions for a wide range of applications including energy storage, renewable energy, biomaterials, automotive and aerospace. With a foundation in the fundamentals of materials behaviour, hands-on experience with state-of-the-art characterization techniques and computer simulations, you'll be ready to tackle the biggest challenges of tomorrow.

As a world leader in new materials applications and processing, our commitment to excellence fosters innovative thinking in our students, leading to the development of brilliant minds who make a global impact.

We offer the following graduate degrees in our department:

Master of Engineering (MEng)

Master of Applied Science (MASc)

Doctor of Philosophy (PhD)

FOR FURTHER INFORMATION, CONTACT:

MSE Graduate Studies Office
mse.grad@utoronto.ca
www.mse.utoronto.ca
184 College Street, Room 140
Toronto, Ontario, M5S 3E4 Canada





#### **DEPARTMENT AT A GLANCE**

- » U of T is ranked the top school in Canada for materials science by the National Taiwan University Ranking 2024
- » Nearly 150 graduate students from across Canada and around the world
- » Eleven electron microscopy and surface characterization instruments in the Open Centre for the Characterization of Advanced Materials (OCCAM)
- » Five analytical instruments in the Walter Curlook Materials Characterization & Processing Laboratory
- » A dedicated space for graduate students to prepare optical and electron microscopy samples in the new, fully equipped Metallographic Laboratory
- » 22 faculty members conducting state-of-the-art research, including Professor Naomi Matsuura's Medical Imaging Materials Laboratory (pictured above), which specializes in designing new materials that interact specifically with imaging radiation

#### **RESEARCH AREAS**

- » Additive & Advanced Manufacturing
- » Advanced Characterization & Forensics
- » Biomaterials & Biotechnology
- » Computational Materials & Data Analytics
- » Electronics, Photonics & Sensors
- » Energy Generation & Storage
- » Nanomaterials, 2D & Composite Materials Coating & Surfaces
- » Renewable Energy Devices, Systems& Technology
- » Smart Materials & Devices
- » Sustainable Materials Processing & Modelling

# MASTER OF ENGINEERING

This program provides an advanced professional education in materials engineering through coursework and an optional project. Under the supervision of a professor, this optional project allows students to delve deeper into their chosen area of specialization and gain practical research experience. In just one year of full-time study, you can obtain a degree respected by employers that differentiates you in a crowded marketplace. Exceptional MEng students may fast-track into the MASc program; please visit our website for details.

Areas of Emphasis: Advanced Manufacturing; Advanced Soft Materials; Advanced Water Technologies; Data Analytics & Machine Learning; Biomanufacturing; Engineering & Globalization; Entrepreneurship, Leadership, Innovation & Technology in Engineering (ELITE); Forensic Engineering; Sustainable Energy.

**Admission Requirements:** A Bachelor of Applied Science (BASc) or Bachelor of Engineering (BEng) with a minimum B (73%) over the final two years of an undergraduate program from an accredited institution.

# MASTER OF APPLIED SCIENCE

The MASc program is oriented toward a career in research. All MASc students carry out a thesis which reports the findings of research conducted by the student. All successfully admitted MASc students will receive annual support of \$18,500 plus tuition and fees for up to two years of study. Exceptional students can fast-track into the PhD program.

**Admission Requirements:** A Bachelor of Applied Science (BASc) or Bachelor of Engineering (BEng) with a minimum average of B+ (78%) over the final two years of an undergraduate program from an accredited institution.

# **DOCTOR OF PHILOSOPHY**

The PhD program consists of courses and an extensive thesis, which you will complete under the supervision of a faculty member. All successfully admitted PhD students will receive annual support of \$22,000 plus tuition and fees for up to four years of study.

**Admission Requirements:** Master's degree in engineering, with an overall average of at least B+ (78%+), from an accredited institution. Current MASc students within our department can apply to fast-track into the PhD program before completing the MASc degree.

**PhD direct-entry Admission Requirements:** A Bachelor of Applied Science (BASc) in Engineering or Bachelor of Engineering (BEng) with a minimum average of A- (80%+) over the final two years of an undergraduate program from an accredited institution.

### **MEng**

**Length of Study:** One year of full-time study or two years extended full-time study (see MSE website for details). Part-time students must complete all degree requirements within six years. Students can take courses from other engineering departments to count towards their degree. At least three half courses must be from MSE.

**Program Requirements:** Complete 10 half-credit courses, with at least three MSE courses. The remaining seven courses can be chosen from other departments to align with students' career goals and interests. The optional MEng project is equivalent to 3 courses.

**Domestic Tuition** (2024–2025, full-time): \$15,521 **International Tuition** (2024–2025, full-time): \$71,567

**Deadline:** Domestic students should apply by June 1 and International students by May 1 for September 2025 start.

**Please Note:** Applicants must select a delivery option (full-time, extended full-time or part-time) at the time of application. Once registered, students cannot transfer between options.

#### **MASc**

Length of Study: Two years of full-time study

**Domestic Tuition** (2024–2025, full-time): \$8,351 **International Tuition** (2024–2025, full-time): \$33,247

**Domestic & International Deadline:** Apply by February 1 for a September 2025 start.

**Please Note:** We encourage you to contact potential supervisors prior to applying.

#### PhD

Length of Study: Four years of full-time study

**Domestic Tuition** (2024–2025, full-time): \$8,351 **International Tuition** (2024–2025, full-time): \$9,107

**Domestic & International Deadline:** Apply by February 1 for a September 2025 start.

**Please Note:** We encourage you to contact potential supervisors prior to applying.

**English Proficiency Requirements:** There is a minimum English proficiency requirement for all applicants educated outside Canada whose primary language is not English. It is a requirement of admission and should be met before applying for admission. Please visit **uofteng.ca/sgs-language** to determine whether you are required to take a test and for a list of accepted tests and their minimum required scores.