

INSTITUTE OF BIOMATERIALS & BIOMEDICAL ENGINEERING

The Institute of Biomaterials & Biomedical Engineering (IBBME) at the University of Toronto is a multidisciplinary research unit where engineering, medicine and dentistry investigators collaborate to develop innovative solutions for global challenges in human health.

Located in the heart of Canada's largest hospital and health care research network, our renowned graduate degree programs in **biomedical** and **clinical engineering** offer hands-on training that is combined with real-world experience and exposure.

OUR 300 STUDENTS LEARN FROM MORE THAN 100 FACULTY MEMBERS ON CAMPUS AND AT 10 PARTNER HOSPITALS IN TORONTO

- » Holland Bloorview Kids Rehabilitation Hospital
- » Hospital for Sick Children
- » Mount Sinai Hospital
- » Princess Margaret Cancer Centre
- » St. Michael's Hospital
- » Sunnybrook Health Sciences Centre
- » Toronto General Hospital
- » Toronto Rehabilitation Institute
- » Toronto Western Hospital
- » Women's College Hospital

GRADUATE DEGREES

- » Master of Applied Science (MASc)
- » Master of Engineering (MEng)
- » Master of Health Science (MHSc)
- » Doctor of Philosophy (PhD)

RESEARCH THEMES

- » Biomaterials, Tissue Engineering and Regenerative Medicine
- » Engineering in a Clinical Setting
- » Nanotechnology, Molecular Imaging and Systems Biology
- » Neural, Sensory Systems and Rehabilitation Engineering



Institute of Biomaterials & Biomedical Engineering
UNIVERSITY OF TORONTO



IBBME AT A GLANCE

- » PhD candidates account for half of IBBME's population of 300 students.
- » IBBME is a key part of Medicine by Design (MbD), U of T's \$114-million regenerative medicine initiative. It brings together 100+ investigators from U of T and its partner hospitals to enhance fundamental discoveries and develop new therapies to treat degenerative diseases.
- » Four IBBME professors are at the heart of cardiovascular disease research in Canada. Led by Professor Craig Simmons, the Translational Biology & Engineering Program serves as U of T's component of the Ted Rogers Centre for Heart Research, which aims to address heart failure across the lifespan.
- » The MEng and MHSc programs include internships. Students work at hospitals, health-care technology companies and partner organizations in Canada and around the world.
- » The Wildcat Fellows Program provides outstanding PhD students with full funding for their first year to rotate through several supervisors' labs.

FOR FURTHER INFORMATION, CONTACT:

MASc, PhD & Collaborative Specialization

416-978-4841

grad.ibbme@utoronto.ca

MEng & MHSc

416-978-6102

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164 College Street, Room 407

Toronto, Ontario, M5S 3G9 Canada

MASTER OF ENGINEERING (MEng) IN BIOMEDICAL ENGINEERING

The **MEng in Biomedical Engineering** program focuses on the design and commercialization of biomedical devices. Students will have the opportunity to take on applied design challenges and meet the growing demands of this industry through course work and a four-month internship.

MEng length of study: one year (full time)

MEng Domestic Tuition (2018–2019, full-time): \$16,460

MEng International Tuition (2018–2019, full-time): \$57,054

Deadline: Apply by late-March for a September start.

MASTER OF HEALTH SCIENCE (MHSc) IN CLINICAL ENGINEERING

The **MHSc in Clinical Engineering** program educates students on how to apply and implement medical technologies to optimize modern health-care delivery. The degree requirements include a blend of academic courses, a research thesis and a series of internships to give students real-world exposure and a competitive edge in the field. MHSc students may transfer to the PhD concentration in clinical engineering during their first year of study.

MHSc length of study: two years (full time)

MHSc Domestic Tuition (2018–2019, full-time): \$15,370

MHSc International Tuition (2018–2019, full-time): \$51,584

Deadline: Apply by mid-February for a September start.

MASTER OF APPLIED SCIENCE (MASc) IN BIOMEDICAL ENGINEERING

The **MASc in Biomedical Engineering** is a research-focused program that immerses students in the application of biomedical sciences and engineering principles to advance solutions for challenges in human health. MASc students are guaranteed funding for two years plus tuition and fees. Candidates in this program may transfer to PhD during their first year of study.

MASc length of study: two years (full time)

MASc Domestic Tuition (2018–2019, full-time): \$16,460

MASc International Tuition (2018–2019, full-time): \$57,054

Deadline: For a September start, international students should apply by the beginning of December and domestic students should apply by mid-February.

DOCTOR OF PHILOSOPHY (PhD) IN BIOMEDICAL ENGINEERING

The **PhD in Biomedical Engineering** is a research-intensive program that immerses students in the application of biomedical sciences and engineering principles to advance solutions for challenges in human health. Students can be directly admitted into the PhD program. Direct-entry PhD students are guaranteed five years of funding plus tuition and fees while PhD students entering from a completed master's program are guaranteed four years of funding plus tuition and fees.

Length of study: four years (full time)

Domestic Tuition (2018–2019, full-time): \$8,490

International Tuition (2018–2019, full-time): \$9,114

Deadline: Apply by mid-February for a September start, international students should apply by the beginning of December and domestic students should apply by mid-February.

COLLABORATIVE SPECIALIZATION IN BIOMEDICAL ENGINEERING

This specialization allows students to earn a certificate in biomedical engineering in conjunction with a research-stream degree program offered in 14 other academic units at U of T. This option provides students with the opportunity to cross traditional discipline boundaries and gain in-depth exposure to biomedical engineering.

Admission Requirements: Application requirements vary for this program and are set by the collaborating academic unit. Students interested in this option must apply at the time of their initial application for graduate studies at the University of Toronto. Please visit www.ibbme.utoronto.ca for more information.

Collaborating graduate units at U of T include departments in the Faculties of Applied Science & Engineering, Arts & Science, Dentistry, Medicine and Pharmacy. Please visit www.ibbme.utoronto.ca for a full listing.

Admission Requirements—MEng & MHSc: A four-year undergraduate degree in engineering from an accredited institution with a minimum grade of A- in the final two years of study. MEng applicants must also have at least a minor in biomedical engineering or equivalent.

Admission Requirements—MASc & PhD: A four-year undergraduate degree in engineering, medicine, dentistry, physical or biological sciences from an accredited institution with a minimum grade of A- in the final two years of study. Confirmation of a faculty supervisor is also required.

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 www.uoft.me/englishfacility to determine whether you are required to take a test and for a list of accepted tests and their minimum required scores.

Application due dates may vary from year to year; please visit www.ibbme.utoronto.ca for exact deadlines.

All tuition amounts include incidental fees. Additional ancillary fees may be levied for enrolment in specific courses or for individual circumstances.