

The NEW *Master's (MScA non-thesis) in Translational Biomedical Engineering* enables students to **become medical technology industry professionals,** leading the design, development, and commercialization of biomedical technologies. This 45-credit training program, taught by industry-leading experts and world-class professors in biomedical engineering, prepares students to launch a professional career in the medical technology industry by covering essential skills and knowledge needed to commercialize research in biomedical engineering. This Master provides a unique opportunity for students to gain experience in a real-world setting through a 14-week experiential industry internship.

The medical technology industry provides **exciting and rewarding career opportunities** and is key to the *Innovation Supercluster* plan for the economic development of Quebec and Canada. Medical Technology is a USD \$400 billion market projected to grow to USD\$595 billion by 2024.

## Program Information

- **Number of credits:** 45 total credits; 4 core courses (12 credits), 5 complementary courses (15 credits), Industry Internship (18 credits)
- **Program length:** Full-time for 1 year
- Admission term: Fall (September)
- Admission requirements: Applicants must have a Bachelor of Engineering, Science, Economics, Arts or Commerce degree with proven quantitative skills. See complete admission requirements at: <u>https://www.mcgill.ca/bme/programs/translational/admissions</u>

### Program Structure

#### **Core Courses**

- BMDE 653 Patents in Biomedical Engineering
- BMDE 654 Biomedical Regulatory Affairs Medical Devices
- BMDE 655 Biomedical Clinical Trials Medical Devices
- BMDE 656 Medical Device Development Process

#### **Complementary Course Areas**

- General Biomedical Engineering
- Biomedical Signals and Systems
- Medical Imaging
- Biomaterials and Tissue Engineering
- Biosensors and Devices
- Entrepreneurship
- Seminars in Biological & Biomedical Engineering

#### **Industry Internship**

• BMDE 657 Biomedical Engineering Industry Internship

See detailed program structure and courses outlines at: <a href="https://www.mcgill.ca/bme/programs/translational/program-structure">https://www.mcgill.ca/bme/programs/translational/program-structure</a>

# Skills & Knowledge

- Intellectual Property acquisitions & licensing
- Clinical trial design and & data analysis
- Quality management & regulatory affairs
- Design controls, verification & validation
- Post-market surveillance
- Reimbursement
- Health technology assessment

## **Career Paths**

- Biomedical Engineering
- MedTech R&D
- Clinical Trials
- Quality Assurance & Regulatory Affairs (QA/RA)
- Patents & IP
- Reimbursement
- Entrepreneurship

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https://www.mcgill.ca/bme



Faculty of Medicine and Health Sciences

Department of Biomedical Engineering