

BIOMEDICAL ENGINEERING



Master of Applied Science (MASc) Doctor of Philosophy (PhD)

The School of Biomedical Engineering is a collaborative effort of the Faculties of Medicine and Engineering. The program focusses on an engineering approach to health research problems, with particular interest in biomedical device innovation, synthesis of new tissues, drugs, biomedical materials, modeling and investigation of physiological systems in the body, human movement science, and the development and application of new medical imaging systems and techniques.



DAL.CA

Why study Biomedical Engineering at Dalhousie?

Degrees are awarded for concentrated study in a selected area involving course work and a research project, and a thesis is required. Graduate students work closely with engineers and clinicians on theses that address contemporary medical problems. Applicants should indicate their preferred research area when applying.

RESEARCH STRENGTHS

- Biomechanics of tissues and tissue engineering
- Bioinstrumentation, medical devices and sensors
- Human body dynamics, orthopedics implants, ergonomics and rehabilitation engineering
- Biomaterials design and prosthodontics
- Respiratory engineering, anaesthesia
- Medical ultrasound imaging technology and signal processing
- Cellular mechanotransduction and neurophysiology
- Operation of physiological systems

POTENTIAL CAREERS

- The majority of our graduates (just over 25%) go on to jobs in the private sector (Biomedical Industry) as: research & development engineers, designers, technical specialists, consultants, or managers
- Just under 25% of our graduates go on to similar jobs in the public sector (e.g. Health Canada, National Research Council, or Department of National Defense).
- Another 25% of our graduates go on to Medical School or Dentistry.
- Just under 25% of our graduates go on to further University education (PhD or Post-Doctoral Positions), with about 10% of our graduates taking up academic positions.

ADMISSION REQUIREMENTS

- Must satisfy the general requirements for admission to the Faculty of Graduate Studies.
- GRE recommended for international students
- 100 on internet-based TOEFL or IELTS scores of 7.5
- Minimum A- average in last two years, B overall
- Various course prerequisites, check online

LENGTH OF PROGRAM

MSc: typical time to complete is 2 years

PhD: typical time to complete is 4-6 years

APPLICATION DEADLINE

Same as the general application deadlines outlined by the Faculty of Graduate Studies; however, earlier applications are given preference

CONTACT INFORMATION

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FACULTY OF GRAD STUDIES

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