



Graduate Studies

Biophysics: MSc, PhD

Fields within Biophysics:

- Molecular
- Structural
- Cellular
- Computational
- Other
(includes Biomechanics)

Program Overview

Biophysics at the University of Guelph is a unique interdisciplinary program that seeks to further our understanding of biological processes through the application of the concepts and techniques of the physical sciences. Biophysics research spans the entire breadth of the life sciences spectrum, including structural biology, biochemistry, molecular biology, biological chemistry, microbiology, bioinformatics and biomechanics. Computational tools are applied to predict the behaviour of biological systems at levels ranging from genes to populations. In Biophysics at Guelph, your program of study will be personalized to your needs and you will never have to “fit into a box”.

Faculty

- Many Biophysics faculty are nationally or internationally recognized as leaders in their research fields including eight Canada Research Chairs, two PREA award holders, three ERA award holders and a SHARCNET Chair
- Faculty members carry out exciting research in new and developing areas at the interface between fields, such as structural biophysics, computational biophysics and biomathematics
- Many Biophysics graduate students are co-advised by two faculty members

Research Environment and Facilities

- A wide range of state-of-the-art facilities at the University of Guelph that facilitate high level of interdisciplinary research
- Facilities include 800, 600 and 500 MHz high resolution and solid-state NMR spectrometry; protein X-ray crystallography; high-throughput protein purification facilities; confocal, atomic force and cryo-electron microscopy; fluorescence spectroscopy; facilities for growth of bacterial, yeast and mammalian cells; genomic and microarray facilities; Fourier transform infra-red spectroscopy; biomechanics instrumentation including parallel robots, motion capture, telemetered electromyography, and biaxial and uniaxial materials testing; mass spectrometry; and the SHARCNET supercomputing cluster
- Many of these facilities are located in the Science Complex, a new 400,000 sq ft building designed to enhance team-based science that crosses traditional discipline boundaries

Funding

All graduate students are guaranteed financial support through research assistantships, teaching assistantships, and internal/external scholarships.

Admission Requirements

- Students can enter the Biophysics program with an Honours Bachelor's degree or a Master's degree in a wide range of fields including Biophysics, Biochemistry, Cell Biology, Physics, Chemistry, Biology, Molecular Biology, Microbiology, Engineering, Kinesiology, Mathematics, Computing Science, Food Science, etc.
- Direct transfer to the PhD degree is possible following partial completion of the MSc degree requirements

CONTACT INFORMATION

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