UNIVERSITY OF GUELPH

CHANGING LIVES
IMPROVING LIFE

Integrative Biology: MSc, PhD

The Department of Integrative Biology is comprised of faculty members in three overlapping areas of emphasis: Ecology, Evolutionary Biology and Comparative Physiology. Research is focused on a wide variety of organisms (from microbes to plants to animals) at multiple levels of organization (from molecules and cells through to entire ecosystems). Basic research is being used as a foundation to address some of the most important regional and global issues.

Research Environment and Facilities

The University of Guelph is home to diverse, state-of-the-art facilities that contribute to research and graduate training. Extensive freshwater and saltwater holding facilities for aquatic organisms are available in the Hagen Aqualab. The University is home to one of the largest herbariums in Canada, and has a strong partnership with the Royal Botanical Gardens. The Biodiversity Institute of Ontario provides first class facilities to investigate the genetic diversity of organisms, and the Limnotron enables experimental manipulation of aquatic food webs. The department engages in field work throughout the world including local (the Arboretum, RARE in Cambridge, Algonquin Park), Arctic (Churchill, MB, Alaska, Yukon), African (Serengeti), and tropical (Costa Rica, Cambodja) sites. The department has access to field sites at the Arboretum, Algonquin Park, and the Huntsman Marine Science Center in New Brunswick, as well as access to extensive greenhouse and plant growth facilities across campus. Graduate students have access to facilities in the Advanced Analysis Centre including those for Genomics, Mass Spectrometry, NMR, X-ray crystallography and facilities for the growth of bacteria, yeast, mammalian and plant cells. These latter facilities are located in the Science Complex, a 400,000 sq. ft building designed to enhance team-based science that crosses traditional discipline boundaries.

Faculty

Many faculty in the graduate program are nationally or internationally recognized as leaders in their research fields. There are two Canada Research Chairs, faculty associated with the Great Lakes Fishery Commission and the Nawash-University of Guelph Partnership. Faculty members are well-funded from a variety of sources including NSERC, SSHRC, OMAFRA, OMNR, CFI, Environment Canada, and Genome Canada.

Funding

All graduate students are guaranteed financial support through Research Assistantships, Teaching Assistantships, and internal/ external scholarships.

Admission Requirements

Students can enter the Integrative Biology program with an Honours Bachelor's degree or equivalent or a Master's degree in a wide range of fields, including: Integrative Biology, Wild Life Biology, Ecology, Evolution, Marine and Freshwater Biology, Biochemistry, Cell Biology, and Molecular Biology & Genetics. Students with advanced academic and research aptitudes can apply for transfer into the PhD program after partial completion of the MSc degree requirements. For more details, see our websites:Assistantships, and internal/ external scholarships.

Fields within Integrative Biology:

- ecology
- evolutionary biology
- comparative physiology

CONTACT INFORMATION

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