# Chemistry and Biochemistry: MSc, PhD

The Guelph-Waterloo Centre for Graduate Work in Chemistry and Biochemistry, (GWC)<sup>2</sup>, is one of Canada's largest and most successful graduate schools. The Centre is housed in the Chemistry Departments at the Universities of Guelph and Waterloo, two of Canada's leading Universities. A diverse team of world-class faculty from both Departments provide research opportunities in a myriad of chemical and biochemical research areas.

Main chemistry research fields include: analytical, biological chemistry or biochemistry, inorganic, nanoscience, organic, physical, polymer and theoretical.

If one considers the comfortable and safe living environment of two midsized cities, the culture and sports activities and the great sense of community within the Departments and the Universities, there lie many wonderful and fulfilling opportunities for study and growth.

Although the Guelph and Waterloo campuses are 30 km apart, they are connected by internet links serving two fully equipped video classrooms at each end, allowing for interactive lectures and research discussions between the two campuses.

## Programs

(GWC)<sup>2</sup> offers programs leading to the MSc and PhD degrees. The MSc degree can be pursued through a Regular or Co-operative Thesis option or through Full-time or Part-time Course Work. The PhD degree can be pursued through the Regular Thesis Option and, for exceptional students, directly from a BSc or by direct transfer to the PhD from the MSc program. Collaborative research programs are available at both the MSc and PhD level.

The University of Guelph offers a Collaborative Chemistry and Toxicology program. The University of Waterloo offers a Collaborative Chemistry and Nanotechnology program and a Collaborative Chemistry and Quantum Computing program. Research opportunities are available through the WATLab, Electrochemical Technology Centre (ETC), Industrially Focused Analytical Research Laboratory (InFAReI), X-ray Diffraction Facility, WATSPEC Mass Spectrometry Facility, Institute for Polymer Research (IPR), WATSPEC NMR Facility and Nanotechnology Facilities. Financial support is guaranteed for every graduate student we accept, except for the MSc course-based programs and fully-funded students.

# Areas of Research

Bio-organic/Biological Chemistry Carbohydrate and Nucleosides Chemistry Chemical Physics Chemical Physics Chemical and Biosensors Computational Chemistry Crystallography Drug Design Electrochemistry Energy: Nuclear, Biomass, Fuel Cells, etc. Environmental Chemistry and Experimental Geochemistry

Enzymology Films and Surfaces Heteroatom Chemistry Magnetism and Conductivity Mass Spectrometry Molecular Dynamics Molecular Electronics Molecular Electronics Molecular Materials Molecular Recognition Nuclear Magnetic Resonance (NMR) Spectroscopy Organometallic Chemistry Physical Organic Chemistry Protein Structure and Function Quantum Computing Reactive Intermediates Solid State Chemistry Spectroscopy and Spectrometry Surface Science and Analysis Synthetic Organic Chemistry Theoretical Chemistry Toxicology Vaccines and Immunochemistry

### www.gwc2.on.ca



Applying to (GWC)<sup>2</sup>

Application packages are available through: University of Guelph University of Waterloo or online at: **www.gwc2.on.ca** 





#### CONTACT INFORMATION

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