CHEMISTRY

Form long-lasting bonds while studying chemistry on a beautiful campus equipped with the latest technology. UNB’s chemistry graduate program offers the perfect mix of collaboration and independent research so students can make significant scientific contributions. We provide our students with dedicated access to extensive research labs and sophisticated instrumentation, including nuclear magnetic resonance, X-ray crystallography, microscopy and microanalysis facilities.

UNB has developed an outstanding reputation around the world thanks to the success of promising chemists enrolled in this program. Upon completion of an original research project and thesis, our graduates go on to work in many different industries, such as healthcare, pharmaceuticals, fine chemicals, pulp and paper, petroleum, and chemical analysis. Others develop prestigious careers in government and university laboratories.

RESEARCH AREAS
- Analytical Chemistry
- Inorganic Chemistry
- Organic and Bio-Organic Chemistry
- Physical Chemistry
- Theoretical Chemistry
- Computational Chemistry

DEGREES OFFERED
MSc, PhD

APPLICATION DEADLINE
Open, April 1 for scholarship consideration

STUDY OPTIONS
Thesis

DURATION
2 (MSc) - 4 (PhD) years

ENTRY TERMS
Fall, Winter, Summer

A PROGRAM THAT REALLY MATTERS
APPLICATION REQUIREMENTS

• All applicants are encouraged to contact faculty prior to applying to secure research supervision.

• MSc applicants should hold an honors bachelor’s degree in chemistry or bio-chemistry with first or upper second division standing. A minimum GPA of 3.0/4.3 (70% or B) is expected.

• PhD applicants should hold a Masters degree in chemistry or a related discipline from a recognized university.

• Applicants are required to submit a complete application, including a one-page statement describing their research interests and experience.

• Outstanding MSc applicants may be offered admission directly to the PhD program or have the opportunity to transfer from the MSc into the PhD program without first completing the MSc.

• International applicants whose first language is not English must submit language scores.

CURRENT FACULTY RESEARCH

• Electrochemistry, sensors and new analytical methods with medical applications; magnetic resonance imaging of materials; functional materials; energy storage materials

• Design and synthesis of new materials; new synthetic methods, computer-aided drug design; relationship between chemical structure and biological activity

• Discovery of biosynthetic pathways to biologically active natural products

• Molecular spectroscopy; high res laser spectroscopy; soft X-ray spectrosopies; computational study of electronic structure, bonding and dynamics; theory and quantum chemical method development for strongly correlated electron systems.