Winnipeg is a medium sized city known for its cultural amenities. The Chemistry Department is on the Fort Garry campus, situated on the Red River at the south side of the city of Winnipeg and is well connected by public transport. Good accommodation is readily available at a reasonable cost (one of the lowest in Canada). The spacious well-treed campus offers all reasonable facilities for students, with extensive tunnel interconnection of departments, facilities, libraries and gymnasiums. The Chemistry Department at the University of Manitoba is a medium sized department, but offers a vibrant and high quality research program in all the major areas of Chemistry and Biochemistry, in a friendly collegial atmosphere of faculty members, support staff and graduate students. The department is recognized as one of the most attractive in Canada for graduate studies, with over 125 students registered in the late 1940’s more than 125 students have obtained their doctoral degree.

Program Information
A M.Sc. or Ph.D. in the chemical sciences is a gateway to an exciting, challenging and frequently high-paying career. M.Sc. and Ph.D. chemists work in areas such as industrial research and development (particularly the pharmaceutical, energy, advanced materials and biotechnology sectors), medical research, environmental and pollution monitoring, and technical consulting. Ph.D. chemists and biochemists in academia have the opportunity both to teach and to pursue independent basic and applied research. Graduate students work in close cooperation with faculty as they pursue their own thesis research projects. There are fascinating project opportunities available in several research groups within the department. Graduate courses are typically informal, and encourage small groups of students to discuss topics of current interest, in a supportive environment. The Department of Chemistry also hosts seminars throughout the year, bringing researchers from university and industrial laboratories in Winnipeg, across Canada, and abroad, to share their latest discoveries with students and faculty. The Armes Lectureship and Betts Lectureship programs provide for extended lecture series by world-renowned chemists, who are able to interact with faculty and graduate students during their visit to the department.

Graduates of the Chemistry M.Sc. and Ph.D. programs are currently employed in industry, research institutes, government laboratories and agencies, and tenured academic positions. Some have even founded their own chemical companies! Alumni of the department’s graduate program now work for companies such as Apotex Fermentation, Medicure, Novopharm Biotech, Philips Paints and Border Chemicals in Winnipeg, Biovail (Steinbach), Anormed (Richmond, BC), Allelix (Mississauga), Uniroyal (Guelph), and G penséyme (Cambridge MA). Several have undertaken additional training with prominent scientists at such places as the Scripps Institute, MIT, the Howard Hughes Medical Institute, the universities of Alberta, British Columbia, Calgary, Montreal, Sherbrooke, and Toronto. Some have gone on to academic careers, at such universities as Alberta, Calgary, Cornell, Guelph, Dalhousie, Northern British Columbia, Queen’s, Saskatchewan, Tufts as well as Manitoba.

Fields of Research

Research Facilities
The department has modern instrumentation and technical support for research and teaching with good library support, including on-line connections to medical libraries and major journals. The computer services have a central core of UNIX and NOVELL servers with Internet access. Department NMR facilities consist of a Bruker Avance300 system, the Prairie Regional Bruker AMX 500 MHz instrument and a Varian Unity INOVA 600 system. Both NMR spectrometers can perform modern gradient-enhanced experiments, and the AMX 500 is also equipped for solid-state work. The INOVA 600 is used for solid-state and protein work. Mass spectrometric facilities consist of a two-sector high-resolution instrument with electron impact, chemical ionization and FAB sources, operational in positive and negative ion modes, a Quattro-LC triple quadrupole instrument equipped for electrospray ionization (ESI), and a Bruker Biflex IV MALDI-TOF instrument for the analysis of large biological molecules. Through the Physics department, Chemistry researchers also have access to experimental time-of-flight instruments. Crystallography facilities are comprised of a precession camera and a computer controlled single-crystal diffractometer, equipped for structural analysis via PC and SGI.

Contact:
Department of Chemistry
The University of Manitoba
350 Parker Building
Winnipeg, MB, Canada
R3T 2N2

p: (204) 474-9321
e: chemistry_dept@umanitoba.ca
web: www.umanitoba.ca/chemistry/students/graduate/
The University of Manitoba (est. 1877) is the largest, most comprehensive and only research-intensive post-secondary educational institution in Manitoba. The University attracts the brightest students and Faculty from around the world. Located in the heart of Canada, Winnipeg is one of the most culturally diverse cities in the country with nearly 100 languages represented.

Winnipeg’s climate of four contrasting seasons provides a multitude of outdoor activities to be explored. The campus is fully networked, and hosts over 40 Research Centres and Institutes. The 13 branch Research Library Facility ensures all of the information you need for your studies is at your fingertips. Access to reasonably-priced on- and off-campus housing makes the U of M one of the most affordable universities to study at in Canada.

The University of Manitoba (U of M) attracts exceptional scholars to its 18 Faculties and 4 Schools and provides a world-class education in the Social, Medical, Natural and Applied Sciences, as well as Engineering, the Arts and Humanities. Programming in over 80 disciplines at the graduate level lead to 82 Master’s degrees and 51 Ph.D.’s including: business management, engineering, agricultural and nutritional sciences, social sciences and humanities, education, physical and earth sciences, medical and life sciences and exciting interdisciplinary opportunities. International students at the U of M have exclusive graduate funding opportunities available throughout their graduate program including entrance scholarships, bursaries and graduate fellowships.

Funding Opportunities

All graduate students in the Department of Chemistry receive a stipend (currently a minimum of $14,000 per year for M.Sc. and $16,000 per year for Ph.D. students), which includes 4 teaching assistantship positions. University of Manitoba Fellowships of $12,000 for Master’s and $16,000 for Ph.D. students are available, regardless of nationality, through annual competitions. The Department also has Anderson, Betts, and Bock Graduate Scholarships available on a competitive basis to supplement the basic graduate stipend. The Campbell-Charlesworth and Lee & Bert Friesen Graduate Bursaries in Chemistry are available for students in financial need.