



# THE UNIVERSITY OF WINNIPEG

For more information visit **[www.uwinnipeg.ca](http://www.uwinnipeg.ca)** or contact a student recruitment officer at **[welcome@uwinnipeg.ca](mailto:welcome@uwinnipeg.ca)** or **204.786.9844**. In any case where The University of Winnipeg Course Calendar and this fact sheet differ, the current Calendar takes precedence.

## Applied Chemistry

***Chemistry is the study of the composition and properties of matter, the transformations they undergo, and the associated energies.***

Chemists are at the forefront of unravelling the mysteries of the most complex chemical systems. If you are interested in understanding the structure of matter and how it behaves on a molecular level, you may be drawn to the field of chemistry.

Offered jointly by The University of Winnipeg and Red River College, the Applied Chemistry program provides you with both the theoretical and the applied knowledge that employers demand. Students take courses at both institutions in a prescribed sequence. Students start by completing 60 credit hours of course work at The University of Winnipeg, followed by 30 credit hours in the Chemical and Biosciences Technology Program at Red River College, and then their final 30 hours are taken back at the University of Winnipeg.

Applied Chemistry is a **4-year program that leads to a joint degree parchment from The University of Winnipeg and Red River College.**

### SAMPLE CAREERS

Graduates may find work in federal or provincial government laboratories, industrial laboratories, hospital laboratories, or with pharmaceutical or chemical companies.

### SAMPLE UNIVERSITY OF WINNIPEG COURSES

The following courses are representative of core courses at The University of Winnipeg:

**Instrumentation for Quantitative Analysis and Analytical Separations** are fourth-year courses that describe the general principles and applications of important chromatographic, spectroscopic, and electrochemical techniques in chemical analysis.

**Physical Chemistry**, delivered as two second-year courses, describes the principles and applications of thermodynamics and the rates and mechanisms of chemical reactions. Quantum mechanics and its applications to the description of atomic and molecular spectra are introduced.

**Inorganic Chemistry II: Coordination and Organometallic Chemistry**, a third-year course, examines the bonding, structure and reactivity of coordination and organometallic compounds.

### SAMPLE RED RIVER COLLEGE COURSES

Core courses at Red River College include **Regulatory Compliance, Quality Assurance, and Hazardous Materials Management**, three half-courses dealing with practical aspects of laboratory technique and management. Other courses include **Environmental Toxicology** and **Data Analysis**.

### WHAT OUR STUDENTS SAY...

"The program gives you good work experience so you have a head-start on everybody else." - *Holly Gubjartson (BSc '00 Applied Chemistry, Cooperative Program)*

### THE CHEMISTRY CLUB

The Chemistry Club is an active students' group, participating in a variety of social and fundraising activities.

## SAMPLE FIRST YEAR

**NOTE:** *This sample first year is representative of the courses you may take. For many of our programs, you may choose another set of courses and still be well on your way to a degree. Also, for most programs you do not have to take 30 credit hours (five full courses) in your first year.*

BIOL-1115(3) Cells and Cellular Processes  
BIOL-1116(3) Evolution, Ecology, and Biodiversity  
CHEM-1111(3) Introduction to the Chemical Properties of Matter  
CHEM-1112(3) Basic Principles of Chemical Reactivity  
RHET-1103(3) Academic Writing: Science or any other section of Academic Writing (if required)  
MATH-1101(6) Introduction to Calculus  
PHYS-1301(6) Introduction to Physics  
3 credit hours Humanities. For example: PHIL-1202(3) Thinking About Moral Issues

## REQUIRED HIGH SCHOOL COURSES

In addition to meeting The University of Winnipeg's general admission requirements, you must have **Chemistry 40S** and either **Pre-Calculus Mathematics 40S** or **Applied Mathematics 40S**.

## HOW TO APPLY – Domestic Student

Apply online at [uwinnipeg.ca](http://uwinnipeg.ca) or pick up an Application for Admission from your high school counsellor's office or the Admissions Office at The University of Winnipeg. To meet Scholarship deadline submit your application and \$80 application fee by **March 1st**.

## HOW TO APPLY – International Student

Apply online at [uwinnipeg.ca/index/intl-apply](http://uwinnipeg.ca/index/intl-apply) and submit all official documents by mail. To meet Scholarship deadline submit application, fee, and documents by **March 1st**. International application fee is \$100, which includes a one-time courier fee.

**Admission to the program must be made through The University of Winnipeg.** Contact our Admissions Office at **204.786.9159** for detailed information.

## CONTACT US

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