



JOINT PROGRAM

APPLIED CHEMISTRY

Chemistry is the study of the composition and properties of matter, the transformations they undergo, and the associated energies. The Applied Chemistry program, offered jointly by The University of Winnipeg and Red River College, provides you with both the theoretical and the applied knowledge that employers demand in this field.

Applied Chemistry 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 University of Winnipeg.

This program 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 and ethnic relations.

SAMPLE COURSES

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.

Core courses at Red River include Regulatory Compliance, Quality Assurance, and Hazardous Materials Management Principle, three courses dealing with the practical aspects of laboratory technique and management. Other courses include Environmental Chemistry/Toxicology and Data Analysis.

SAMPLE 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

STUDY PATTERN

Students in this program complete their *degree* at The University of Winnipeg and their *diploma* at Red River College, as follows:

Year 1-2 – The University of Winnipeg

Year 3 – Red River College

Year 4 – The University of Winnipeg

“The program gives you good work experience so you have a head start on everybody else.”

- Holly Gubjartson (BSc Applied Chemistry, Cooperative Program)

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

Students wishing to pursue this program must apply to The University of Winnipeg to complete 60 credit hours, and then apply to Red River College for their third year. No application is necessary when the student returns to The University of Winnipeg in their fourth year.

Step 1

Apply to The University of Winnipeg:
<http://www.uwinnipeg.ca>

Step 2

After completing 60 credit hours at UWinnipeg, apply to Red River College by **March 1**
<http://www.rrc.mb.ca>

Note: Students are required to pay an application fee at both institutions.

For more information contact a student recruitment officer at welcome@uwinnipeg.ca or 204.786.9844. In any case where the University's Academic Calendar and this fact sheet differ, the current Calendar takes precedence.

CONTACT US

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