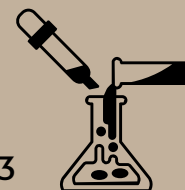


Chemistry SPECIALIZATION

Courses for Students Enrolling in Fall 2023



FIRST YEAR

CHMI 1006E General Chemistry I*
CHMI 1007E General Chemistry II
MATH 1036E Calculus I**
MATH 1037E Calculus II
PHYS 1006E Introductory Physics I
PHYS 1007E Introductory Physics II

12 elective credits#

* Students lacking grade 12 4U Chemistry must first take CHMI 1041.

**Students lacking grade 12 4U Advanced Functions or who have attained a grade of less than 60% must first take MATH 1912

SECOND YEAR

CHMI 2117E Introductory Quantitative Analysis*
CHMI 2316E Inorganic Chemistry I
CHMI 2426E Organic Chemistry I
CHMI 2427E Organic Chemistry II
CHMI 2516E Introductory Physical Chemistry I
CHMI 2517E Introductory Physical Chemistry II
MATH 1057E Linear Algebra I

9 elective credits#

§This program has a co-op option. Please contact the Department of Chemistry and Biochemistry for more information.

THIRD YEAR

CHMI 2227E Biochemistry I
CHMI 3116E Instrumental Techniques in Chemical, Biochemical and Environmental Sciences
CHMI 3316E Inorganic Chemistry II
CHMI 3317E Advanced Inorganic Chemistry
CHMI 3416E Spectroscopic Techniques in Organic Chemistry
CHMI 3537E Introduction to Quantum Chemistry
NATS 3106E Scientific Writing and Communication
STAT 2246E Statistics for Scientists

3 credits from:

ENGR 2026E Engineering Materials
MATH 2037E Advanced Calculus
MATH 2066E Introduction to Differential Equations

3 elective credits#

§This program has a co-op option. Please contact the Department of Chemistry and Biochemistry for more information.

FOURTH YEAR

NATS 4005E Honours Thesis*
OR NATS 4106E Literature Review and 3cr CHMI at the 3rd or 4th year level

24 elective credits#

* A student must have at least a cumulative GPA of 6 (B) in all CHMI courses to take NATS 4005.

Elective credits

- Students must include a minimum of 12 credits from the Arts
- Students must include a minimum of 3 credits in Biology, Geology, Engineering, or Environmental Science. NATS 3206EL (Internship) can be taken to satisfy this requirement
- SCOM 4006EL is recommended as an elective
- Students must take a minimum of 15 elective CHMI credits at the third or fourth year level in at least 3 different chemistry sub-disciplines.

- General Chemistry (CHMI 30XX/40XX)
- Analytical Chemistry (CHMI 31XX/41XX)
- Inorganic Chemistry (CHMI 33XX/43XX)
- Organic Chemistry (CHMI 34XX/44XX)
- Physical Chemistry (CHMI 35XX/45XX)

Note: Many universities require a minimum of 18 CHMI credits at the fourth year level for admission to graduate programs.

Note: Students may not exceed 48 credits at the 1000 or 9100 level in their degree program.

Students enrolled in the Specialization in Chemistry may choose to add a stream to their degree program. Streams are available in Industrial Chemistry, Geochemistry, Material Chemistry, and Environmental Chemistry. This feature is designed to emphasize the various interfaces that exist between Chemistry and other disciplines in Science and Engineering, and allows students to tailor their program in accordance with their career objectives. Students choosing a stream will take the prescribed courses within their elective credits. They should consult with an academic advisor when planning their program of study and notify the Office of the Registrar of their intention to complete a stream.

