

Chem 2223B (Winter 2023–24)

Organic Chemistry of Biological Molecules

Course Description & Prerequisite Requirements

Calendar description: *An examination of the chemistry of naturally occurring molecules, emphasizing organic compounds of importance in the Biological and Health Sciences.*

Extra information: 3 lecture hours, 1.5 laboratory hours (3 h every other week), 0.5 course.

This course is fully in-person. All lectures, experiments, and assessments are in-person. Online alternatives are not available.

Prerequisite: Chem 2213A/B or 2283G. Please note that Chem 2273A alone, in the absence of Chem 2283G, is not a suitable prerequisite. Antirequisites: None.

Unless you have either the prerequisites for this course or written

Course Website

News, course updates, and relevant materials will be posted on Western's learning management system, OWL (<http://owl.uwo.ca>). This is the primary method by which information will be disseminated to all students in the class, so you are responsible for checking OWL on a frequent basis.

If you need technical assistance with OWL, seek support on the OWL Help page. Alternatively, contact the Western Technology Services Helpdesk by phone at 519-661-3800 or extension 83800.

Learning Outcomes

Chem 2223B has an emphasis on the development of skills such as critical thinking, problem solving, and scientific reasoning; these transversal skills are essential to success in not just chemistry but also in other courses and in many occupations. A student receiving credit for Chem 2223B will be expected to reliably demonstrate competence in their ability to:

Discipline-Specific Expectations

Describe the importance of organic chemistry in everyday life and the interdisciplinary nature of organic chemistry.

Use critical thinking skills to explain, make connections between, and apply chemical principles, laws, and theories that pertain to the chemistry of living systems.

Evaluate and assess chemical data and information and explain how they relate to chemical theories/laws.

Apply chemical theories or laws to solve a variety of novel chemical problems.

Conduct experiments and draw conclusions from collected experimental data and results.

Safely use a variety of laboratory equipment and instrumentation to perform experimental procedures and explain the underlying theory behind all of them.

Professional-Skill Expectations

Analyze and critically assess problems, and take a systematic approach to solve them.

Work independently, as well as with others in an effective, practical, social, and ethical manner.

Obtain, evaluate, and integrate information from various sources, and determine its relevance.

Prioritize tasks and manage the use of time.

Execute mathematical calculations accurately.

Communicate thoughts, ideas, and observations verbally and in writing.

Recognize when to seek assistance.

Course Personnel, Lecture Info, and Contact Info

Throughout the term, your course instructors, a lab coordinator, an undergraduate assistant, a counselling assistant, and many teaching assistants contribute to the course. They are here to support your learning and help you achieve your goals. Your instructor's information can be found below.

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request an accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Advising or Dean's Office of their home faculty or affiliated college. Please visit the Diversity Calendars posted on our university's EDID website for the recognized religious holidays: <https://www.edi.uwo.ca>

Students who are in emotional/mental distress should refer to Health and Wellness (<https://www.uwo.ca/health>) for a list of options about how to obtain help.

Additional student-run support services are offered by the USC, <http://westernusc.ca/services>.

Academic Policies and Legalities

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy, https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf, the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

It is university policy that a regularly scheduled class (lecture, lab, or tutorial) takes precedence over tests and exams. Therefore

Laboratory Information and Schedule

For each experiment, watch any provided technique videos that may be on OWL and complete the prelab quiz before the start of your scheduled laboratory session, which is determined by your section of registration. The videos and the prelab quiz will be released at least one week prior to your scheduled laboratory session.

STUDENT ABSENCES AND MISSED COURSE COMPONENTS

Students who experience an extenuating circumstance (such as illness or injury) sufficient to significantly and temporarily render them unable to meet academic requirements may submit a request for academic consideration. The request must be supported by documentation from a

Approved Health Specialist or Accessible Education Specialist.



Missed Final Exam or Multiple Exam Situation

- Step 1** Obtain academic consideration.
- Anything else?** Nope! After obtaining academic consideration, please **do not** contact your instructor or lab coordinator even though you may be asked to do so. We will be automatically notified of the academic consideration.
- What happens?** You will be able to write the Special Exam (the name given to a make-up Final Exam) in