CHEM 2203/2207 for Summer 2025

ORGANIC CHEMISTRY I

Course Instructor: Chris Schaller

Email: chrisschaller@carleton.ca

Best Ways to be in Touch: There will be time before lecture starts to ask questions. After class, please wait until other students finish quizzes to ask questions. Questions about course material work best on the Discussions in Brightspace.

Class Location: Please check Brightspace or Carleton Central for class location.

Class Times: Tue, Thu at 8:35-11:25 am

Student Hours: Monday, 7:30-8:30 pm, Zoom

Prerequisites: CHEM 1006 with a minimum grade of B- or CHEM 1002

Department/Unit: Chemistry
Lab Coordinator: Spencer Ng (spencerngcheongchung@cunet.carleton.ca)
Lab Instructor: Trinda Crippin (TrindaCrippin@cunet.carleton.ca)
Consult the Brightspace page for CHEM 2203 Lab for more details

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Topics Covered and Learning Outcomes

Course Description
Structure, organization, and scope of organic chemistry including molecular structures of well-known and important organic chemicals, types of chemical reactions, and spectroscopic methods used in identification.

Topics to be Covered

Week	Topic/Content	Readings/Prep for Class (Online Educational Resources)
1	Structure and Properties; Acidity	Structure; Properties; Acidity See Brightspace content tab for specific OER texts and videos.
2	Spectroscopy	Spectroscopy
3	Stereochemistry; Conformation	Stereochemistry; Conformation
4, 5	Nucleophilic Substitution and Elimination	Nucleophilic Substitution and Elimination
6, 7	Electrophilic Addition	Electrophilic Addition

Important dates and deadlines can be found here:
https://carleton.ca/registrar/registration/dates/academic-dates/.

Learning Objectives

- Compare and contrast structures of molecules to predict property trends.
- Determine structures of organic compounds based on evidence.
- Analyze the possible three-dimensional shapes of organic molecules.
- Make predictions about organic reactions, including electrophilic additions and nucleophilic substitutions.
- Demonstrate the elementary steps by which organic reactions occur.
- Analyze evidence to confirm the mechanism of a reaction.

Instructional Design

Studies have repeatedly shown that a more interactive format leads to improved learning compared to a lecture. The classroom component of this class will include mini-lectures, question time, and opportunities to practice without being graded.

Studies have also shown that the use of graded online homework systems lead to improved overall performance. We use Achieve in this class. There are a few assignments due each week, organized by topic so that you can proceed with an assignment once you are comfortable with that material. There are also ungraded assignments available in Achieve for additional practice; these units are visible in the Course Content view.

Assessments

Grade Breakdown

COMPONENT	GRADE VALUE	DATE
TOPIC QUIZZES	100 pts (~19%) [5 of 6]	May 13, 20, 27; Jun 3, 10, 17
DRAWING QUIZZES	50 pts (~10%) [5 of 6]	May 8, 15, 22, 29; Jun 5, 12
ACHIEVE HW	65 pts (~12%)	May 11, 18, 25; Jun 1, 8, 15, 18
MIDTERM	50 pts (~10%)	May 29
FINAL EXAM	100 pts (~19%)	TBA
LAB	160 pts (~30%)	See Brightspace CHEM2203L
EXTRA CREDIT	5 pts (~1%)	May 6, 8, 13; Jun 18

The final grade is calculated from the total of points earned; approximate percentages are shown for comparison. In order to pass the course, CHEM 2203 students must also receive a passing grade in lab. Note that CHEM 2207 does not include lab points.

Please note that several Brightspace quizzes are used in the course. Under no circumstances can a student complete these quizzes or exams outside the classroom or the accessibility office.

Late and Missed Work Policies

Late Work

The normal deadline for Achieve homework is Sunday evening. Achieve assignments remain available for late submission for 7 days but lose 10% of their overall value each day.

Missed Work

One topic quiz score and one drawing quiz score are automatically dropped. This policy allows a student to miss 2 out of 13 class periods (15% of classes during the term) without a grade penalty. A student who has missed only two class periods but missed either two drawing quizzes or two topic quizzes can have the second missed quiz score replaced by the drawing or non-drawing portion of the final exam, respectively.

If you wish to request additional consideration you may fill out the *academic considerations form*. A student may make one request during the term; any accommodations are made at the discretion of the instructor.

Because of the very short term, it may not be possible to accommodate extended absences buts students may request consideration using the form for *longer-term accommodation* .

Learning Material(s) and Other Course/Lab-Related Resources

Learning Material	Options for Purchasing *(e.g. Bookstore, Used, etc.)*	Approximate Cost
MacMillan Achieve	Brightspace; Bookstore	$45
Text	Open Educational Resource	0

Academic Accommodations and Regulations

Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes are outlined on the Academic Accommodations website (https://students.carleton.ca/course-outline/).

Statement on Chat GPT/Generative AI usage

As our understanding of the uses of AI and its relationship to student work and academic integrity continue to evolve, students are required to discuss their use of AI in any circumstance not described here with the course instructor to ensure it supports the learning goals for the course.

Statement on Academic Integrity

Students are expected to uphold the values of academic integrity, which include fairness, honesty, trust, and responsibility. Examples of actions that that compromise these values include but are not limited to plagiarism, accessing unauthorized sites for assignments or tests, unauthorized collaboration on assignments or exams, and using artificial intelligence tools such as ChatGPT when your assessment instructions say it is not permitted.

Misconduct in scholarly activity will not be tolerated and will result in consequences as outlined in Carleton University's Academic Integrity Policy. A list of standard sanctions in the Faculty of Science can be found here.

Additional details about this process can be found on the Faculty of Science Academic Integrity website.

Students are expected to familiarize themselves with and abide by Carleton University's Academic Integrity Policy.

Student Rights & Responsibilities

Students are expected to act responsibly and engage respectfully with other students and members of the Carleton and the broader community. See the 7 Rights and Responsibilities Policy for details regarding the expectations of non-academic behaviour of students. Those who participate with another student in the commission of an infraction of this Policy will also be held liable for their actions.

Assistance for Students

Science Student Success Centre: https://sssc.carleton.ca/