

**UNIVERSITY OF TORONTO
DEPARTMENT OF CHEMISTRY**

CHM 1003H

Physical Organic Chemistry

Winter 2020

Course Information – Revised on March 23, 2020

- Instructor:** Prof. Mark S. Taylor (LM622A). E-mail: mtaylor@chem.utoronto.ca
- Lectures:** Mondays and Wednesdays, 4–5 PM, LM155
- Student Hours:** By appointment.
- Course Website:** <https://q.utoronto.ca>. It is important that you check the course website periodically for announcements related to exams, assignments, etc. as well as posted course material (slides, papers).
- E-mail Policy:** I am happy to respond to course-related e-mail inquiries. Please include the course code CHM1003 in the title of your e-mail, and use your UTOR e-mail account to send the message. Normally, I'll get back to you within 48 hours. However, e-mail is not an alternative to meeting with me during office hours, nor is it a mechanism for lengthy discussions or to explain material that was covered in lectures you missed.
- Course Objectives:** The goal of the course is to acquaint you with the techniques and concepts that are used to study mechanisms of organic reactions.
- Text:** There is no required text for this course. Modern Physical Organic Chemistry (Anslyn & Dougherty, University Science Books) is a recommended reference. Sections of the course will be based on articles from the primary research literature that will be posted on Portal for you to read.
- Recommended:** Molecular model set (available at the bookstore). Stereochemical issues will be emphasized in this course, and molecular models can be useful for visualizing molecules in three dimensions.
- Grading Scheme:**
- | | |
|-------------------------|--------------|
| Quizzes (2) | 30%* |
| Problem set (1) | 15% or 20%** |
| Assignment (1) | 35% or 30%** |
| Final 2-hour assignment | <u>20%</u> |
| | 100% |

* The two quizzes are worth 30% in total (one quiz is worth 20% while the other is worth 10%). Individual mark breakdowns will be calculated in order to award each student the higher overall final grade.

**** The problem set and literature assignment are worth 50% in total (either a 20%/30% or 15%/35% problem set/literature assignment breakdown). Individual mark breakdowns will be calculated in order to award each student the higher overall final grade.**

Problem Set: A problem set will be assigned during the semester and graded. You are expected to complete it on your own, not in collaboration with other students in the course. Problem sets handed in after the deadline will be penalized at a rate of 10% per day. **Due date: Mar 30 2020, 5:00 PM**

Assignment: Students will carry out a critical evaluation of a journal article from the primary research literature related to physical organic chemistry. Papers selected by students will be subject to the approval of the course instructor. The evaluation includes both an oral exam and a written assignment. **The written assignment may be submitted any time before 11:59 PM on April 16 without penalty. Assignments handed in after that date/time will be penalized at a rate of 10% per day.**

Quizzes: Two quizzes will be held during the regular class time in LM155.
Dates:

Quiz 1: Feb 10 2019

Quiz 2: Mar 18 2019 (online, 4:00–6:00 PM)

There will not be ‘make-up’ quizzes for students who are absent for medical reasons. The weighting of the remaining evaluation methods will be increased equally to compensate for the missed test.

<http://www.healthservice.utoronto.ca/pdfs/medcert.htm>

Final Assignment: A two-hour final assignment will be administered online. Access to the assignment questions will be opened at 8 AM on April 6, and upload of answers will be permitted until 8 AM on April 7). This is an ‘open book’ assignment (students may use their course notes as reference materials) that is to be completed individually.
Coverage: The final assignment will only cover the material discussed during the in-class lectures; the two case studies and the section on noncovalent interactions (covered after the cancellation of in-class lectures) will not be covered directly, although reviewing this material may be useful since it illustrates many of the concepts that we discussed earlier in the course.

Academic Integrity: Academic integrity is fundamental to learning and scholarship at the University of Toronto. Information regarding academic integrity at U of T, and a link to the *Code of Behaviour on Academic Matters*, can be found at www.artsci.utoronto.ca/osai/students.

Accessibility: The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: disability.services@utoronto.ca or <http://studentlife.utoronto.ca/accessibility>