

## Course Outline for Winter 2020

### Course Instructor

**and Laboratory Supervisor:** Dr. Horace Luong  
**Office:** 264B Parker  
**Phone number:** 204-474-7916  
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### Lectures:

Lectures are held Mondays, Wednesdays and Fridays from 11:30-12:20 pm.

### Prerequisite:

The prerequisite for this course is CHEM 1300 or CHEM 1301 with a grade of C or better.

Note: Students are not permitted to hold CHEM 1320 concurrently with CHEM 2210 or 2211. **In order to take CHEM 2210 (Introductory Organic Chemistry), you must enroll in CHEM 1310 and NOT CHEM 1320.**

### Course Content:

The course content will consist of an introduction to the reactions and properties of the main types of organic functional groups. The understanding of organic reactions will be aided by the discussion of mechanistic and structural features.

### Course required materials:

Textbook: "Organic Chemistry with Biological Applications" (**3<sup>th</sup> Edition**) by John McMurry.  
 Lab Manual: CHEM 1320 Laboratory Manual (2020 Edition)  
 Safety glasses, lab coat (can be purchased through CGSA or bookstore)  
 (Optional) Molecular model kit (use permitted during examinations)  
 (Optional) OWLv2 – online homework system  
 (Optional) iClicker remote (students can use their phones, tablets or laptops to access the iClicker system during class)

### Evaluation

The evaluation for CHEM 1320 is as follows (100% total):

Two Term Tests	20%
iClicker and in-class assessment	5%
Final Examination	60%
Laboratory Component	15%

A final letter grade will be assigned based on your final percentage grade as follows:

≥ 90.0%	A+	80.0-89.9%	A	73.0-79.9%	B+
66.0-72.9%	B	59.0-65.9%	C+	52.0-58.9%	C
45.0-51.9%	D	<45.0%	F		

**Students should note that none of the grades (examinations or laboratory) will be marked on a curve or have any form of statistical treatment applied to enhance the grades.**

### Term Tests

Two “take-home” term tests will be administered in this course. Students should estimate the term tests to take approximately two hours of their time and they should treat it as a closed book examination to test their knowledge. The term test will be released on UM Learn on February 10 at 1 pm and Monday March 23 at 1 pm. The term tests are due by 1 pm on Friday February 14 and 1 pm on Friday March 27. Further details are provided on the term tests.

The tests are expected to be marked and grades released within two weeks of submission. Only individual submissions are accepted.

### iClicker and in-class assessment

Starting from Module 1 and then every module thereafter, iClicker questions will be posed during the lecture periods. Students are expected to work in a group of two to three students (unless told otherwise) to devise the answers. The answers must be submitted individually via each student’s iClicker account although at times, the answers might have to be drawn by hand and submitted on paper.

### Final Examination

All students are required to write the final examination scheduled by the Registrar’s Office for April during the final exam period. If the final exam is missed due to medical or other compassionate reasons, then deferrals can only be issued by the student’s home faculty or University 1 as appropriate. The **three-hour** final examination will be cumulative with equal emphasis on all chapter and lecture material covered in the course.

Students are allowed their molecular model kits but please leave notes and cell phones out of the exam room. Students caught with unauthorized electronic devices and materials during an examination will be subjected to academic discipline according to the student discipline bylaw.

### Laboratory Component

Many of the concepts taught in the lecture will also be reflected in the laboratory experiments. For the final examination, students are responsible for both the lecture and laboratory material.

All students registered in the laboratory must buy a CHEM 1320 laboratory manual (2020 edition). The laboratories are in room 264, 280, and/or 290 in the Parker Building. Room and bench number will be assigned according to student name on the bulletin board just across from the organic laboratories by January 23 (IGNORE WHAT IS WRITTEN ON AURORA!).

## ***Laboratory Grade Appeals***

It is a departmental policy that **an appeal on the grading of a laboratory report must be made to Dr.Luong within two weeks of the return of the report. NO APPEALS OF LABORATORY GRADES WILL BE CONSIDERED AFTER THE FINAL EXAMINATION IN THE COURSE HAS BEEN WRITTEN.**

**Wearing of eye protection at all times and appropriate footwear (no sandals, flip-flops, crocs, flats or anything else which exposes the foot surface – socks do not provide protection) is compulsory.** Laboratory attendance is compulsory and satisfactory attendance and completion of laboratory work (a lab score of 60% or greater with no more than two lab grades of zero is required to prevent a grade of F in the course). Withdrawal from the lecture part of the course does also require withdrawal from the laboratory part. If you repeat the course, laboratory exemptions will only be given if the lab was successfully completed (i.e., receiving a minimum of 70% with no more than two marks of zero on lab reports) in the immediately preceding two years. You may get an exemption by applying online [http://fluidsurveys.com/s/Lab\\_Exemption\\_Form/](http://fluidsurveys.com/s/Lab_Exemption_Form/) and the previous lab mark will be used in the computation of your final grade.

### Getting Help for the Course

**Students who have questions pertaining to the lecture or lab, please see Dr.Luong in person. Emails and phone calls should be reserved for emergencies only!**

**Office Hours** – Dr.Luong’s office hours are held in Parker 264B on Tuesday, Wednesday and Friday from 1:30-2:15. As well, feel free to see Dr.Luong during the CHEM 2220 laboratories (when they are in session; Tuesday and Wednesday 9-11 am and 3-5 pm), although his priority will be given to the students in the laboratory.

**E-mail and Phone** – Students who have an urgent request should give Dr.Luong a call. He can usually respond to e-mails within several hours on a business day. Don’t expect a response over the weekend. For chemistry questions, please use the UM Learn discussion forum or see Dr.Luong in person.

**The CHEM 1320 course content, grades and announcements are regularly posted on UM Learn ([www.umanitoba.ca/d2l](http://www.umanitoba.ca/d2l))**

### Academic Integrity

#### **Plagiarism**

Copying another student's examination, laboratory reports, or assignments, or an instructor's answer sheet from a previous year is plagiarism. Students quoting other sources of information in a laboratory report or other assignment must give proper credit. Plagiarism and other forms of cheating are prohibited. The full definition of plagiarism and the possible penalties associated with it are outlined in the General Calendar of the University.

#### **Cheating**

The possession of unauthorized materials during an examination, including "crib notes" (whether hand-written or contained within a computer/calculator), is considered cheating and subject to action by the Student Disciplinary By-Law. Calculators and text aids (books, notes, etc.) are NOT permitted in any term tests or examination. Students found with electronic devices or other unauthorized material during a chemistry examination will be given a grade of zero (0) on that examination and further penalties may apply.

## **Faculty of Science Statement on Academic Misconduct**

The Faculty of Science and The University of Manitoba regard acts of academic misconduct in quizzes, tests, examinations, laboratory reports or assignments as serious offences and may assess a variety of penalties depending on the nature of the offence. Acts of academic misconduct include, but are not limited to, bringing unauthorized materials into a test or exam, copying from another individual, using answers provided by tutors, plagiarism, and examination impersonation.

Penalties that may apply, as provided for under the University of Manitoba's Student Discipline By-Law, range from a grade of zero for the assignment or examination, failure in the course, to expulsion from the University.

The Student Discipline By-Law may be accessed at:

[http://umanitoba.ca/admin/governance/governing\\_documents/students/student\\_discipline.html](http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html)

All Faculty members (and their teaching assistants) have been instructed to be vigilant and report all incidents of academic misconduct to the Head of the Department.

## **Other Student Resources**

A list of University governing documents pertaining to students can be found [here](#).

## **Academic Resources**

Various academic resources are available to students including the Science and Technology Library and various departmental help centers.

## **Health & Mental Health Resources**

Students with Health and/or Mental Health issues may seek advice and/or help from Student Counselling Center, Student Accessibility Services, and University Health Services.

## **Copyright and Intellectual Property Resources**

Copyrights and intellectual property must be respected by all students. For more information, please refer to the Copyright Office.

## **Respectful Behavior Resources**

Students are expected to act in a respectful manner. Policies regarding respectful work and learning environment and sexual assault can be found [here](#).

## **Final Examinations, Grades and Grade Appeals Resources**

Final examination and grades policies can be found [here](#).

Students wishing to appeal their term work grade can do so through the Registrar's office. A fee is charged for each appeal.

Students wishing to view their final examination should go to the Department of Chemistry website and complete the final examination viewing form.

Students wanting to appeal their final grade can initiate the process at the Registrar's office. A fee will be charged for each appeal. See the Registrar's office for more information.

### **Limited Access and VW Resources**

Students who fail or VW from a course will be subject to limited access to that course in future terms. That is, students will not be able to register for a course (for which they have VWed or failed) during the limited access registration period. For more information, please see the [policy document](#) for repeated courses.

### *How this Course Is Different From Other Courses*

Students in this course will be learning under a pedagogical method called “flipped classroom” and “blended learning”. There is scientific literature to support that this is an effective way of teaching organic chemistry. For this method to work effectively, students have to play a more active role each week compared to the traditional classroom setting. The course content is divided into 10 modules and each week is the start of a module. On Mondays the instructor will perform problem solving related to that week’s module content. On Wednesday students will be given a quiz followed by a preview of the next module. Friday’s period will be an optional tutorial for students who have questions about any of the course content.

For each module, you will need to do the following before coming to class on Mondays (in the recommended order):

- Watch ALL the videos on UM Learn associated with the module prior to the day of the module (**up to 30 minutes**)
- Read the assigned sections after watching the videos (up to 48 pages)
- Complete the assigned chapter exercises

Dr. Luong suggests devoting 4-6 hours weekly for CHEM 1320 lecture material. It helps to dedicate the same time every week to the activity so that it’s part of a routine. By learning the material over time it just means that exam time will be less hectic.

Anticipated FAQs:

1. “ There are so many assigned chapter exercises; do we have to do all of them?”

No you do not have to do ALL the exercises; I listed all of the ones that I think you should be able to handle. For questions with multiple parts, you may decide to just try one part to see if you understand what the question is asking. Perhaps save some of the questions for midterm or final exam preparation.

2. “ Are we responsible for nomenclature?”

I will not explicitly test on complete nomenclature.

**Disclaimer: Please note that this is a ‘living’ document and there may be points which have been mistakenly forgotten to be included. If there are any questions, please do not hesitate to ask!**