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**Course Instructor**

**and Laboratory Supervisor:** Dr. Horace Luong  
**Office:** 264B Parker  
**Phone number:** 204-474-7916  
**E-mail:** Horace.Luong@umanitoba.ca

Lectures:

Lectures are held Mondays 8:30-10:20 am (A01) and 11:30-1:20 pm (A02).

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 (2017 Edition)

Homework Registration: OWLv2

(Optional) Molecular model kit (use permitted during examinations).

Evaluation

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

Mid-Term Examination	10%
Final Examination	70%
Laboratory Component	15%
OWL Learning Assignments	5%

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.**

### Mid-Term Examination

The mid-term exam will be released on UM Learn the week of module 5 (March 6). The exam must be submitted in person to Dr. Luong by 5 pm on March 13, 2017. The exam is expected to be marked and grades released within two weeks of submission (March 27). Only individual submissions are accepted.

### 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 cell phones or notes during an examination will be subjected to academic discipline according to the student discipline bylaw.

### OWL Learning Assignments

Registration in CENGAGE Learning's online homework system (OWLv2) is required. The registration code for the online homework system comes bundled with the textbook and instructions are found on UM Learn.

The assignments have a firm due date (no late submissions). I recommend not attempting the assignments last minute should there be technical issues. The assignments are expected to take up to 20 minutes.

### Mark break down

The online assignment is worth 5% and the marking will be assigned according to the total number of assignments completed of the 11 assignments available (completed is defined as having attempted 80% of the questions in the assignment):

5% = completion of 11-9 assignments

4% = completion of 7-8 assignments

3% = completion of 5-6 assignments

2% = completion of 3-4 assignments

1% = completion of 1-2 assignments

### Laboratory Component

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

All students registered in the laboratory must buy a CHEM 1320 laboratory manual (2017 edition). The laboratories are in room 264, 280, and/or 290 in the Parker Building. Your room and bench number will be assigned according to your name on the bulletin board just across from the organic laboratories after February 9 (IGNORE WHAT IS WRITTEN ON AURORA!). Students will be conducting five weeks of experiments, starting February 9 & 10, 2017.

LAB DATES	Thursday PM	Friday PM
<b>Experiment 1 (Day 1)</b>	February 9, 2017	February 10, 2017
<b>Experiment 1 (Day 2)</b>	February 16, 2017	February 17, 2017
<b>Experiment 2</b>	March 2, 2017	March 3, 2017
<b>Experiment 3+Experiment 4 (Day 1)</b>	March 16, 2017	March 17, 2017
<b>Experiment 4 (Day 2)</b>	March 23, 2017	March 24, 2017

## **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. Students with lab exemptions are still responsible for any laboratory based questions on the final examination.

### Getting Help for the Course

**If you 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 and Wednesday from 12:45-2:15. 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 so he may ask you to wait.

**E-mail and Phone** – If you have an urgent request, please 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))

### Blended Learning Research – YouTube Analytics

As part of the blended learning research conducted in this course, Drs. Luong and Falkenberg and their research assistant, will be analyzing YouTube viewer behavior for the online video lectures. The data collected will be of the viewer aggregate (from those participating and not participating in the study) and therefore not traced to the individual. Access to the online videos is through the links posted on UM Learn. These videos are unlisted so please do not share the videos with others outside of the course.

The information that the researchers are interested in collecting for each video are:

- Average view duration (average percentage of video viewed)
- Number of views
- Average number of rewinds
- Audience retention
- Devices used to watch the videos
- Number of and types of comments (including likes and dislikes)

## Academic Integrity

### **Plagiarism**

Copying another student's examination, laboratory reports, or assignments, or an instructor's answer sheet from a previous year is plagiarism. If you quote other sources of information in a laboratory report or other assignment, you 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 cell phones, pagers, text in their calculators 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 Dishonesty**

The Faculty of Science and The University of Manitoba regard acts of academic dishonesty 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 dishonesty 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. **Cell phones, pagers, PDAs, MP3 units or electronic translators are explicitly listed as unauthorized materials, and must *not* be present during tests or examinations.**

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)

Suggested minimum penalties assessed by the Faculty of Science for acts of academic dishonesty are available on the Faculty of Science Academic Dishonesty Guidelines and Penalties web-page

[http://umanitoba.ca/faculties/science/resources/Acad\\_Dishon\\_TABLE\\_RevCSS\\_AdminC\\_Jul2012\\_WEB.pdf](http://umanitoba.ca/faculties/science/resources/Acad_Dishon_TABLE_RevCSS_AdminC_Jul2012_WEB.pdf)

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

For more definitions, policy details, informative case studies, and an Academic Honesty Quiz see:

<http://umanitoba.ca/faculties/science/undergrad/resources/webdisciplinedocuments.html>

## **Other Student Resources**

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

### **Academic Recourses**

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](#). For more resources about examinations, see [here](#).

Students wishing to appeal their term work grade can do so through the Registrar's office. A fee is charged for each appeal. More information can be found [here](#).

To view your final examination, please check with the department offering the course for policies. More information can be found [here](#).

To appeal your final grade, you 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

You 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 and from years of teaching this course, Dr.Luong has seen many students struggle with the course – that’s why we’re adopting the method! For this method to work effectively, students have to play a more active role each week compared to the traditional classroom setting. We have in total 11 class periods of an approximate two hour duration.

CHEM 1320 (Winter 2017): Weeks at a glance (**\*\*\*UPDATED JANUARY 3, 2017**)

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Week of	Lecture Period	Your Lab Period (Thursday and Friday)
Jan 23	Introduction	
Jan 30	Module 1	
Feb 6	Module 2	Experiment 1 Day 1
Feb 13	Module 3	Experiment 1 Day 2
Feb 20	Reading Break	
Feb 27	Module 4	Experiment 2 <b>Lab Report 1 Due</b>
Mar 6	Module 5 Mid-term exam released	
Mar 13	Module 6	Experiment 3 + 4 (Day 1) <b>Lab Report 2 Due</b>
Mar 20	Module 7 Part A	Experiment 4 (Day 2)
Mar 27	Module 7 Part B	<b>Lab Report 3 Due</b>
Apr 3	Module 8	
Apr 10	Module 9	
Apr 17	Module 10	

For each module, you will need to do the following (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
- Complete the OWL assignments BY Monday morning at 8 am on the day of the module (**expected to take up to 20 minutes**)

Dr.Luong would suggest devoting 4-6 hours weekly for CHEM 1320 lecture material (watching videos, doing readings, attempting practice problems and completing online homework assignments). 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.

Each lecture will be comprised of combinations of the following activities:

- Lecture to relate material
- Group work on problems
- Random students selected to present their way of solving the problems
- Dr.Luong recaps the module and provides a prelude to the next module.

Please note that while we are not interested in your individual viewing behavior, Google may be tracking your individual viewing behavior.

Please let me know if you have any questions about the material that you're responsible for. There may be places of ambiguity and it doesn't hurt to ask for clarification!

You will likely not be given any additional final exam practice material so I'd recommend not marking the questions up since you may decide to reuse them to studying purposes.

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 you on complete nomenclature, BUT some of the online assignments will, so please prepare for that!

3. Will you provide sample exams and term tests from previous years?

No, because I don't think it would be of much use because the course content and order is different from that covered in previous years so it might lead to confusion. If you can successfully tackle the online assignments, prospective in class exercises and chapter exercises, I think you'll be in really good shape!

**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!**