Introductory Organic Chemistry II
Syllabus

Course Number	SC/CHEM 2021 3.0 Sections M, N, O
Term	Winter
Session	2015
Prerequisite	CHEM 2020 3.00 or equivalent

Course Description

This is a challenging course in organic chemistry that will build on the knowledge taught in CHEM2020 by exploring the reactions of many functional groups including ethers, aldehydes, ketones, aromatic compounds, amines and carboxylic acid derivatives. We will also be covering spectroscopy and structure determination in the first third of the course. As with CHEM2020, efforts will be made to relate the course material to human biology through the use of examples to show the relevance. The most important piece of advice to students in this class is to not fall behind with the material as there will be many reactions and mechanisms covered.

Course Directors

Prof. Pierre Potvin (section M)
Office: CB 406
Office Hours: MF 3:00 – 4:30 pm
please, no telephone calls
chem2020@yorku.ca

Dr. Derek Jackson (sections N and O)
Office: CB 452
Office Hours: M 3:00 – 4:00 pm, TR 4:00 – 5:00 pm
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derekj@yorku.ca

Lab Coordinator

Ms. Olga Girina
Office: CB 308
Phone: (416) 736-2100 x 33091
ogirina@yorku.ca

Meeting times

It is the responsibility of the student to make yourselves available at *all meeting times* throughout the term. This includes times that are designated as lecture and tutorial. Due to our flipped classroom approach this term, these designations become somewhat obselete. Please do not “double book” yourselves as we will not accommodate such situations.

Laboratory

3 hour sessions at variable times during the week, depending on lab group. Labs start the week of January 12, 2015 and you will have one lab every other week throughout the term. Laboratory information will be posted to and constantly updated on Moodle.

Learning Tools

Textbook:
Organic Chemistry by L.G. Wade (custom edition for York University, Volume 2) will be supplied by the York bookstore.

NOTE: the 6th , 7th and 8th editions of *Organic Chemistry* by L.G. Wade are also suitable for this course. Any other organic chemistry textbook will also include most, if not all, of the material covered in the course. Feel free to use whatever textbook you are most comfortable with although I can only provide lists of textbook problems to try from the custom edition. The custom edition is equivalent to the 7th edition.

Course Kit:
The course kit is optional this term; the bookstore will be supplying limited quantities. Feel free to reuse an old one if you want some past tests to try but we will not be teaching directly out of the course kit and the material contained therein may vary from the topics we cover in lecture. The list of topics covered that we will be giving you will always take priority over the sections mentioned in the course kit.

Molecular Model Kit:
Not required but extremely useful study aid, and encouraged. Molecular model kits <u>are allowed</u> during midterm and final exams. The York bookstore should have kits in stock. Feel free to reuse your old kits from CHEM2020.

Lab Manual:
You will get your lab manual during your first lab session from your TA (free of charge). Prior to the first lab session we will post the first sections of the manual on the course website so you have all the relevant material you need to prepare for your first lab.

Evaluation

Your grade for this course will be assessed on the following basis:

Online quizzes (10%)	Throughout term*
Midterm exam 1 (15%)	February 6, 2015 (tutorial time)
Midterm exam 2 (15%)	March 6, 2015 (tutorial time)
Laboratory experiments (20 %)	Throughout term
Final exam (40%)	April 8 – 24, 2015**

* You will be responsible for watching videos on moodle related to the background theory of a topic, and then take an online quiz (10 questions) to test your knowledge of this material. There are 11 quizzes throughout the term, and to obtain credit for each quiz, you must score a minimum of 80%, based on the average between two allowed attempts (this may be subject to revision). You will be allowed to miss one quiz without penalty, hence each quiz is worth 1/10 of the total quiz mark (i.e. 1% of your final mark).

** The exact exam date, time and location will be set by the Registrar's office and will eventually be posted to their website; we have no control over what date they choose. All students are expected to be available for the complete final exam period. Conflict with previously made travel arrangements is not an acceptable reason for missed exams.

Pass Requirements: A passing grade of 50% for the total mark assessed as part of the lecture component is required to pass the course. A passing grade for the lab component requires attendance at every lab session and obtaining a minimum lab average of 66%.

NOTE: There will be no makeup midterm exams. If a student misses a midterm for any reason, the weight of the missed midterm(s) will be shifted to the final exam. Documentation is not required. It is strongly advised that every student attempt both midterms unless seriously ill. The procedure for missed final exams is different, and further information will be provided in advance of the exam date.

Final grade

Faculty of Science approved letter grades

NOTE: Numerical grades are only guides for assigning of final grades. The course director retain the prerogative on how to use numerical grades to assign letter grades. Exam and laboratory marks are made available to students, however a final numerical mark is not disclosed to the student.

Notes on Labs

Unless a student has a lab exemption (lab 99) or partial lab exemption (arranged by the lab coordinator), attendance at laboratory sessions is mandatory. Assessment of the laboratory component of the grade is as outlined in the lab manual. Absences will result in a grade of zero for a particular lab, unless for a justifiable reason (e.g. illness, family emergency, traffic accident, etc.) and with appropriate documentation (doctor's note, traffic report, etc.) Please be advised that we will follow-up on any documentation provided and that the course director retains discretion on allowing make-up laboratories. In the event that a make-up lab is allowed, this will be coordinated by Ms. Olga Girina, and the student must make him or herself available for the assigned make-up period.

Late lab reports will not be tolerated, unless for a justifiable reason and with appropriate documentation (see above).

Course Content

The course material follows the sequence of chapters in *Organic Chemistry* by L.G. Wade (subject to change). For a detailed list of textbook sections that we will likely cover, please refer to the relevant document posted on the course website.

Chapter 12	Infrared Spectroscopy and Mass Spectrometry
Chapter 13	Nuclear Magnetic Resonance Spectroscopy
Chapter 14	Ethers and Epoxides
Chapter 16	Aromatic Compounds
Chapter 17	Reactions of Aromatic Compounds
Chapter 18	Ketones and Aldehydes

Chapter 19	Amines
Chapter 20	Carboxylic Acids
Chapter 21	Carboxylic Acid Derivatives

Not every section of each chapter will be covered.
The course directors will inform you of which sections are testable material.

Important Information for All Students:

Students who opt out of using Turnitin.com must submit an electronic version of their reports to their instructor by the same deadline. Supporting documentation may be requested and other means of plagiarism detection may be used.

Students are required to make themselves aware of school policies relating to Academic Honesty and Integrity, Access, Religious Accommodation, Student Conduct and other matters. A summary of these policies can be accessed at

http://www.yorku.ca/secretariat/senate/committees/ascp/documents/CourseInformationForStudentsAugust2012.pdf