Course Outline: CHEM 2OB3  Year: Jan. 2017

Title: Organic Chemistry II

Instructor: Dr. Michael Brook  
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Lab coordinator: Dr. Greg Bahun  
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Content: Survey of fundamental reactions used to construct organic molecules, with emphasis on reaction mechanisms. The course includes an introduction to functional group interconversions, synthesis and construction of complex organic molecules. Multi-functional molecules such as sugars and amino acids will be studied.


Detailed Description: CHEM 2OB3 is a continuation of CHEM 2OA3. Material will cover the structures, preparation and reactions of organic molecules containing alcohol, ether, aromatic, carbonyl and amino groups. We will cover ~Chapters 11-14 and 17-25 of the textbook, inclusive. We will also continue to develop your expertise in structure determination using spectroscopic techniques, as appropriate.

Other Resources: A chemical model kit (Available in bookstore)  
Orion online learning from Wiley: this is a recommended but optional web-based self-assessment tool and resource.

Laboratory Manual, including duplicate lab notebook (Available from the bookstore); goggles; lab coat.

Prerequisite(s): CHEM 1AA3; and one of CHEM 2OA3, CHEM 2OC3, CHEM BIO 2OA3

Antirequisite(s): CHEM 2BB3, CHEM 2OD3, CHEM BIO 2OB3

Not open to students registered in Honours Chemical Biology.

3 Lectures/week

5 Laboratories every other week

5 Tutorials every other week

1 Mid term (Feb. 10, 7-9 pm) and 1 Final exam scheduled by the Registrar’s office

Evaluation: Assignments (2), Orion: 15% (7.5/7.5)  
Labs: 15%  
Midterm Exam: 20%  
Final Exam: 50%

NOTE: 1. Any assignments, tests or exams written in pencil will not be eligible for re-grading. 2. The mark value of any missed tests or assignments (with acceptable excuse, as per the Dean’s office) will be added to the value of the final exam. 3. Assignments and the midterm test are completely optional. If you elect not to write them, OR IF THEIR VALUE BRINGS DOWN
YOUR FINAL MARK, the final exam will take on greater value. There are no extensions for assignments or rewrites of the midterm for any reason, as they are completely optional. Therefore, please do not complete the MSAF form, as it will have no impact.

Times: Lectures: TWF 12:30-1:20, MDCL-1305 (Starting Jan. 4)
Help Centre Thode: See Avenue for time, locations, bench assignment
Labs: See Avenue for time, locations, bench assignment
Tutorial: See Avenue for time and location
Office Hours: TBD

Dates: Midterm Exam: Fri. Feb. 10th, 7-9 pm
Final Exam: 2.5 h, scheduled by registrar
Assignments: Due: Tues. Feb. 3rd and Tues. Mar. 21st. Assignments will be available on-line at least 1 week prior.

Aids: The McMaster standard calculator ONLY will be allowed in examinations. Molecular models will also be allowed in tests, but must be packaged in clear plastic bags.

Web site: Avenue
Course description, class slides, assignments, answer keys, sample tests, etc.

Review: The knowledge you gained in CHEM 2OA3 (or equivalent) is assumed. You will be required to know and use information you learned in that course.

Modification: NOTE: The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

Laboratory: Eye protection in accordance with the McMaster eyewear policy is MANDATORY. This means goggles must be worn at all times in the lab. Lab coats are recommended. Open shoes are not permitted. You must obey all safety instructions; failure to do so may result in loss of marks (a negative safety mark) and exclusion from the lab with a grade of zero. Reports will be written and submitted during the laboratory period.

Late work: Late assignments will not be accepted under any circumstances. As noted above, they are completely optional.

Missed work: MEDICALS: If you are absent from the university for a minor medical reason, lasting fewer than 5 days, you may report your absence, once per term, without documentation, using the McMaster Student Absence Form (MSAF). Absences for a longer duration or for other reasons must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. When using the MSAF, send the report of your absence to bahungj@mcmaster.ca. THIS IS ONLY VALID FOR LABS (ASSIGNMENTS AND THE MIDTERM TEST ARE OPTIONAL).
For missed labs, sign up on the sheet provided to indicate when you are available to make up the lab (which other regular section of the SAME lab you can make). Otherwise, you will have to make up the lab after the end of regular labs; you must then contact bahungj@mcmaster.ca by email.

Provided you file the MSAF (or obtain other, equivalent relief from your program office):

- You should schedule a spot for the early write of the test as soon as you know you cannot write the regularly scheduled test for the normal permitted reasons (not your convenience). The early write will likely be at 2pm on Feb. 10th. Students with accommodations should book their slots as soon as possible as the test will only be written on Feb. 10. Note: it is optional.
- If you miss a lab, then the lab MUST be made up as soon as possible, and in NO cases will a make-up be permitted after the writing of the final exam. Completion of the labs is required to complete the course. Failure to complete all the labs will result in a grade of F for the course. Students who miss a lab should follow the procedure described above.

Students who do not submit an MSAF (or other allowance made by the appropriate office (e.g. Associate Dean’s office) as required if the MSAF has already been used) will receive a mark of zero for the missed work and no allowance will be given. Again, students are advised that an incomplete lab – the only reasons to complete an MSAF - will result in a grade of F.

**Academic Dishonesty:** Academic dishonesty is not qualitatively different from other types of dishonesty. It consists of misrepresentation by deception or by other fraudulent means. In an academic setting this may include any number of forms such as: copying or the use of unauthorized aids in tests, examinations and laboratory reports; plagiarism, i.e., the submission of work that is not one's own or for which previous credit has been obtained, unless the previously submitted work was presented as such to the instructor of the second course and has been acceptable for credit by the instructor of that course; aiding and abetting another student's dishonesty; giving false information for the purposes of gaining admission or credit; giving false information for the purposes of obtaining deferred examinations or extension of deadlines; and/or forging or falsifying McMaster University documents.

Academic dishonesty can result in serious consequences, e.g., a grade of zero, loss of credit with a notation on the transcript, and/or suspension or expulsion from the University. It is YOUR responsibility to understand what constitutes academic dishonesty.

For more information, see: http://www.mcmaster.ca/senate/academic/ac_integrity.htm

**In CHEM 2OB3, ALL cases of academic dishonesty will be prosecuted to the maximum penalty allowed.**

**Copyright policy:** In this course you will have access to material that is subject to copyright laws. This includes (but is not limited to) the textbook, solutions manual and all resources developed by the instructors such as lab manuals, demonstration videos, quizzes, assignments, tests, class notes and class slides. You are not allowed under any circumstances to share or redistribute this material in any printed form without the explicit written consent of the copyright holder. This includes posting any course material on Internet bulletin boards, course repositories, social networks, etc.

**Internet/Online protocols:** All matters pertaining to this course should be kept within the electronic
confinings of the course within McMaster and Avenue. Do not post or e-mail any material or comments with regards to the course on outside sites.

Security: MDCL-1305 is a large lecture theatre. Most students tend to sit in a similar location during each class. Please take a look around you NOW for the closest and safest exit. In the event of a fire alarm or other emergency be prepared to leave as quickly and safely as possible.

Entering/exiting MDCL-1305: Please exit the room promptly as a courtesy to students in the following class. If you enter late, please do so as quietly as possible.