

COURSE OUTLINE – Winter 2019

CHEM 3513: Intermediate Organic Chemistry

Instructor: Dr. Amitabh Jha: ajha@acadiau.ca; Office: E120B, Tel: 902-585-1515

Office Hours: Mondays 1:30-4:30 pm (and by appointment)

Textbook: Recommended Text: Organic Chemistry by Solomons, Fryhle and Snyder (12th Edition; Wiley). Access to any undergraduate level organic chemistry book will do.

Lectures: M/W/F, 8:30-9:30 am (E312)

Marking Scheme:

Midterm 1	15% (Friday Feb 8, in class)
Midterm 2	15% (Friday Mar 8, in class)
Quiz	10%
Laboratory	20%
Presentations	10%
Final Exam	30% (Cumulative; TBA)

There won't be any make-up midterm exam. If a midterm is missed with a valid excuse, then the midterm percentage of your grade will be transferred to the final exam.

Topics to be covered: This is an intermediate level course in organic chemistry. The major emphasis (~70%) of this course will be retrosynthetic analyses and design of multistep syntheses of target compounds incorporating the chemistry covered in Chem 2513, 2533 and 3513. New topics to be examined at the beginning of the course include:

1. Chemistry of Carboxylic Acids and Derivatives
2. Chemistry of Esters and Ester Enolates (β -ketoesters)
3. Chemistry of Aliphatic and Aromatic Amines
4. Chemistry of Aryl Halides, and
5. Chemistry of Phenols

The lecture portion does not require the students to bring their laptops.

Presentation: Students will be required to give ~15 minute PowerPoint presentation on an assigned topic.

Quizzes: A synthetic chemistry quiz will be posed at the beginning of almost every lecture. The responses to some of these quizzes will be marked. Majority of these quizzes will be on designing multistep synthetic route to a target molecule.

Requirements: The prerequisite for this course is CHEM 2533 with a minimum grade of C-. Since chemistry is a laboratory science, the laboratory for this class is an integral part of the course. You must obtain a passing grade in the laboratory to pass the course.

Organization: The course consists of three 50 min lectures and one 3h laboratory per week. Although attendance at lectures is not mandatory, you would be well advised not

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to miss any. Experience has shown that students who usually attend class do well, whereas those who do not attend classes tend to fail.

Cheat Sheet: List of reactions (to be provided) can be used a cheat sheets.

Tutorials: During the course of the term, tutorial sessions will be held.

Laboratory Portion

Meeting Time and Place: E316, Wednesdays 1.30-4.30 **Starting Jan 16.**

Lab Manual: To be made available soon.

Required Materials for Labs: You will be required to have a) a **hardcover** laboratory notebook, 2) laboratory manual, 3) lab-coat and 4) lab-glasses to start your laboratory work.

Laboratory Policies: You will be expected to complete ALL laboratory experiments by attending ALL pre-lab sessions and the corresponding laboratory classes. You will also have to write up these laboratories according to a specified format and hand them in to be marked at specified times. Unexcused absences will result in a zero grade for that particular laboratory session. If you have more than one unexcused absence from the laboratory, you will be assigned a failing grade for the course.

Exemption from Laboratory Work: If you are repeating the course, you may be exempt from the lab if you have previously passed the lab component with 60% or better. An official proof will be required; previous lab grade will be used.

Online Learning:

ACORN: Class syllabus, supplementary materials, class announcements, and other important information will be posted on ACORN.

Accessible Learning Services:

If you have a documented disability and require support or accommodations, please contact Dr. Abu Kamara, Coordinator, Accessible Learning Services at 902-585-1291, abu.kamara@acadiau.ca or Kathy O'Rourke, Disability Resource Facilitator at 902-585-1823, disability.access@acadiau.ca. Accessible Learning Services is located in the Fountain Commons, Lower Level.

Academic Integrity:

It is your responsibility to acquaint yourself with the university policy on academic integrity. Academic dishonesty such as cheating and plagiarism are not tolerated. Any form of academic dishonesty in examinations, tests, labs, or assignments is subject to serious academic penalty. A full description of the penalties associated with academic dishonesty is outlined in the 2017-2018 Undergraduate Calendar.