

## Chemistry 3523 – Structure Determination

### Course Outline – Winter 2016

- Professor: Dr. Bobby Ellis (office: 323 Elliott Hall; e-mail: bobby.ellis@acadiu.ca)  
Please include CHEM 3523 in the subject of all e-mail for this course
- Lectures: Tues. and Thurs. 10:00-11:20 am in 320 Elliott Hall
- Tutorials: Optional tutorials will be held prior to midterm and final exams
- Labs: Thurs. 1:30-4:30 pm in 204 Elliott Hall
- Office Hours: Tues. 2:00-5:00 pm and Wed. 9:30-11:00 am or by appointment
- Textbook: *Organic Structure Analysis, 2<sup>nd</sup> Edition* by Crews, Rodríguez and Jaspars  
ISBN-10: 0195336046 ISBN-13: 978-0195336047  
The textbook is **strongly recommended** – *some assignments questions will come from the textbook*
- Website: Supplementary problems and other course resources:  
<http://www.acadiu.ca/~bellis/resources/>
- Grading:
- |                                 |     |                             |
|---------------------------------|-----|-----------------------------|
| Assignments/Quizzes             | 15% |                             |
| Lab Reports                     | 25% |                             |
| Midterm Exam #1                 | 15% | Thursday, February 11, 2016 |
| Midterm Exam #2                 | 15% | Thursday, March 24, 2016    |
| Final Exam ( <i>Open Book</i> ) | 30% |                             |

**Programmable calculators are not allowed for midterms; they are allowed for the final exam.**

**There are no make-up midterms.** If you miss a midterm examination for a reason deemed excusable by the Registrar's Office, the points are transferred to the value of the final exam.

The goals of this course are to solidify and build upon the concepts of spectroscopy presented in CHEM 2303 and CHEM 2513/2533 and use them to identify the structures of compounds from spectroscopic data. The topics covered in this course are:

1. Spectroscopy in Structural Analysis
2. NMR Spectroscopy (1D and 2D)
3. Infrared Spectroscopy
4. Mass Spectrometry
5. Ultraviolet Spectroscopy

#### Students with Exceptionalities that Affect Learning

If you are a student with a documented disability who anticipates needing supports or accommodations, please contact Dr. Abu Kamara, Coordinator, Accessible Learning Services at 902-585-1291, [abu.kamara@acadiu.ca](mailto:abu.kamara@acadiu.ca) or Kathy O'Rourke, Disability Resource Facilitator at 902-585-1823, [disability.access@acadiu.ca](mailto:disability.access@acadiu.ca). Accessible Learning Services is located in the Fountain Commons, Lower Level.

## Policies on Missed Course Work due to Absences

### Assignments

If an assignment is not submitted by the beginning of class on the due date and you **do not have a valid excuse** (as determined by the Registrar's Office), you lose 20% of the total value per day until it is submitted.

If an assignment is not submitted by the beginning of class on the due date and you **have a valid excuse** (as determined by the Registrar's Office), the point value for that assignment is transferred to the value of the final exam.

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### Laboratory Work

**You must fully complete (hands-on portion and report) at least seven experiments and the practical lab exam to complete the laboratory portion of this course in order to receive course credit.**

You must complete more than 50% of the hands-on portion of an experiment in order to submit a report.

- For two week experiments you must be present for at least the first week.
- For three week experiments you must be present for at least two of the three weeks.

If you were not present for enough of the experiment to submit a report and you **do not have a valid excuse** (as determined by the Registrar's Office), you will receive a grade of zero for that report.

If you were not present for enough of the experiment to submit a report and you **have a valid excuse** (as determined by the Registrar's Office), the point value for that report is transferred to the value of the final exam.

If you completed the hands-on portion of an experiment and the laboratory report is not submitted by the beginning of lab on the due date and you **do not have a valid excuse** (as determined by the Registrar's Office), you lose 20% of the total value per day until it is submitted.

If you completed the hands-on portion of an experiment and the laboratory report is not submitted by the beginning of lab on the due date and you **have a valid excuse** (as determined by the Registrar's Office), it is due the first day after the excused period by 6 pm.