

## Chemistry 3523: Structure Determination

### Course Outline – Fall 2019

Professor: Dr. Bobby Ellis (office: 115 Elliott Hall; e-mail: [bobby.ellis@acadiau.ca](mailto:bobby.ellis@acadiau.ca))

Lectures: Tues. and Thurs. 10:00-11:20 am in 303 Elliott Hall

Tutorials: Optional tutorials will be held prior to midterm and final exams

Labs: Thursdays 1:30-4:30 pm in 221 Elliott Hall

Office Hours: Mon., Wed. and Fri. 9:00-10:00 am or by appointment

Textbook: The textbook is **strongly recommended** – some assignments questions will come from the textbook  
Organic Structure Analysis, 2<sup>nd</sup> Edition by Crews, Rodríguez and Jaspars  
ISBN-10: 0195336046 ISBN-13: 978-0195336047

Resources: Supplementary problems and other course resources:  
<http://www.acadiau.ca/~bellis/resources/>

Other: Students are **strongly recommended** to purchase a molecular model kit

Evaluation:	Assignments/Quizzes	5%	
	Nomenclature	5%	
	Lab Work	30%	
	Midterm Exam #1	15%	Thursday, October 10, 2019
	Midterm Exam #2	15%	Thursday, November 14, 2019
	Final Exam	30%	

Grade Conversion:	Alpha	GPA	%
	A+	4.33	94 – 100
A	4.00	87 – 93	
A-	3.67	80 – 86	
B+	3.33	77 – 79	
B	3.00	73 – 76	
B-	2.67	70 – 72	
C+	2.33	67 – 69	
C	2.00	63 – 66	
C-	1.67	60 – 62	
D+	1.33	57 – 59	
D	1.00	53 – 56	
D-	0.67	50 – 52	
F	0.00	0 – 49	

**If you miss more than two lab periods for any reason, you earn a failing grade in course.**

**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 valid reason, 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:

Spectroscopy in Structural Analysis by:

1. Infrared Spectroscopy
2. Ultraviolet Spectroscopy
3. NMR Spectroscopy (1D and 2D)
4. Mass Spectrometry

#### Fit to Learn Policy

Students are required to show up to laboratory (lab) and lecture at Acadia University in a mental and physical state suitable for learning. This means they must not be impaired due to sources such as (but not limited to) marijuana, prescription drugs, alcohol, severe lack of sleep or any other cause that may compromise the safety and/or learning potential for themselves or other students.

The instructor has the right to remove anyone from the lab setting that they feel is exhibiting signs of impairment with likely grade implications.

#### Accessible Learning Services

If you are a student with documentation for accommodations who anticipates needing supports or accommodations, please contact Marissa McIsaac, Accessibility Resource Facilitator at 902-585-1520, [disability.access@acadiau.ca](mailto:disability.access@acadiau.ca) or Emily Duffett, Accessibility Officer, 902-585-1823, [disability.access@acadiau.ca](mailto:disability.access@acadiau.ca). Accessible Learning Services is located in Rhodes Hall, rooms 111-115.