

Chemistry 3113 – Quantum Chemistry

Course Outline – Winter 2019

Professor: Dr. Bobby Ellis (office: 115 Elliott Hall; e-mail: bobby.ellis@acadiau.ca)
Please include CHEM 3113 in the subject of all e-mail for this course

Lectures: Mon., Wed, and Fri. 9:30-10:20 am in 303 Elliott Hall

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

Office Hours: Mon. 2:00-5:00 pm or by appointment

Textbook: *Quantum Chemistry and Molecular Interactions* by Cooksy
ISBN-13: 978-0-321-81416-6; the textbook is **not required**,
but access to a quantum chemistry textbook is recommended

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

Evaluation:	Assignments/Quizzes	15%	
	Computational Projects	25%	
	Midterm Exam #1	10%	Friday, February 1, 2019
	Midterm Exam #2	10%	Friday, March 1, 2019
	Midterm Exam #3	10%	Friday, March 22, 2019
	Final Exam	30%	

Programmable calculators are not allowed for midterm or final exams.

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; see "Policies on Missed Course Work due to Absences" for more information.

The goals of this course are to solidify and build upon the concepts first presented in Introductory Chemistry.

The topics covered in this course are:

1. Computational Chemistry
2. Comparing Classical and Quantum Mechanics
3. One-Electron Atoms
4. Many-Electron Atoms
5. Chemical Bonds
6. Energy States and Spectroscopy

Students with Exceptionalities that Affect Learning

If you are a student with a documented exceptionality who anticipates needing supports or accommodations, please contact Dr. Abu Kamara, Coordinator, Accessible Learning Services at 902-585-1291, abu.kamara@acadiu.ca or Marissa McIsaac, Accessibility Officer at 902-585-1520, disability.access@acadiu.ca. Accessible Learning Services is located in Rhodes Hall.