

## Chemistry 3113 – Physical Chemistry 3: Quantum Chemistry

### Course Outline – Winter 2015

Professor: Dr. Bobby Ellis (Office: 323 Elliott Hall; E-mail: [bobby.ellis@acadiau.ca](mailto:bobby.ellis@acadiau.ca))

Lectures: Mon., Wed. and Fri. 12:30-1:20 pm in 320 Elliott Hall

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

Office Hours: Wed. 8:30-10:00 am and Thurs. 9:00-10:30 am

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* textbook is recommended.

Evaluation:	Assignments/Quizzes	15 %	
	Research Project	25 %	
	Midterm Exam #1	10 %	Wednesday, January 28, 2015
	Midterm Exam #2	10 %	Wednesday, February 25, 2015
	Midterm Exam #3	10 %	Wednesday, March 18, 2015
	Final Exam	30 %	

**Programmable calculators are not allowed for midterms or final exams.**

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

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 Disabilities

If you are a student with a documented disability who anticipates needing accommodations in this course, please contact Disability Access in the Student Resource Centre, lower floor of the Old SUB (Old Student Union Building), [disability.access@acadiau.ca](mailto:disability.access@acadiau.ca), 902-585-1823.

## 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), you lose 20% of the total value per 24 hours (or fraction thereof) 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), the point value for that assignment is transferred to the value of the final exam.

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### Research Projects

If a research project is not submitted by the due date and time, and you **do not have a valid excuse** (as determined by the Registrar), you lose 20% of the total value per 24 hours (or fraction thereof) until it is submitted.

If a research project is not submitted by the due date and time, and you **have a valid excuse** (as determined by the Registrar), it is due the first day after the excused period by 6 pm.