

## Chemistry 3313 – Inorganic Chemistry 2: Transition Metal Chemistry

### Course Outline – Winter 2015

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

Lectures: Mon., Wed. and Fri. 10:30-11:20 am in 320 Elliott Hall

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

Labs: Thursday 1:30-4:30 pm in 204 Elliott Hall (lab opens at 1 pm)

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

Textbook: *Inorganic Chemistry, 5th Edition* by Miessler, Fischer and Tarr  
ISBN-13: 978-0-321-81105-9; the textbook is **not required**,  
but access to *an inorganic textbook* is recommended

Other: Students are strongly advised to purchase a molecular model kit

Evaluation:	Assignments/Quizzes	10 %	
	Research Project	15 %	
	Laboratory Work	20 %	
	Midterm Exam #1	10 %	Monday, February 2, 2015
	Midterm Exam #2	10 %	Monday, March 2, 2015
	Midterm Exam #3	10 %	Monday, March 23, 2015
	Final Exam	25 %	

**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 of chemical structure and bonding presented in CHEM 2303, and to introduce organometallic chemistry. The topics covered in this course include:

1. Coordination Chemistry
2. Catalytic Cycles
3. Reactions Mechanisms
4. Ligands (Hard and Soft Acids and Bases)
5. Spectroscopy
6. Unusual Bonding Arrangements
7. Metal-Metal Multiple Bonds
8. Bioinorganic Chemistry

#### 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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### Laboratory Work

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), 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), 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), you lose 20% of the total value per 24 hours (or fraction thereof) 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), it is due the first day after the excused period by 6 pm.

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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.