Chemistry 2303 – Inorganic Chemistry 1: Structure & Bonding

Course Outline – Fall 2015

Professor:	Dr. Bobby Ellis (office: 323 Elliott Hall; e-mail: bobby.ellis@acadiau.ca) Please include CHEM 2303 in the subject of all e-mail for this course
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:	Mondays 1:30-4:30 pm in 204 Elliott Hall
Office Hours:	Tues. 2:00-5:00 pm, Wed. 8:30-10:00 am
Textbook:	**No required textbook**, but access to *an inorganic textbook* is recommended M&T: *Inorganic Chemistry, 5th Edition* by Miessler, Fischer and Tarr H&S: *Inorganic Chemistry, 4th Edition* by Housecroft and Sharpe S&A: *Inorganic Chemistry, 6th Edition* by Shriver, *et. al*
Website:	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	15 %	
	Lab Reports	25 %	
	Midterm Exam #1	10 %	Wednesday, October 7, 2015
	Midterm Exam #2	10 %	Monday, November 2, 2015
	Midterm Exam #3	10 %	Friday, November 20, 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's Office, the points are transferred to the value of the final exam.

The topics covered in this course are:

1. Atomic Structure (periodic trends, reduction-oxidation reactions)
2. Simple Bonding Theories (Lewis structures, VSEPR theory, valence bond theory)
3. Symmetry and Group Theory (point groups, molecular symmetry, character tables)
4. Molecular Orbital Theory (sigma and pi bonding polyatomic MO diagrams)
5. Coordination Chemistry (crystal field theory, ligand field theory)
6. Ionic Bonding (crystal systems, bonding in extended salt structures)
7. Main Group Chemistry (electron deficient compounds, heavy element multiple bonds)

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@acadiau.ca or Kathy O'Rourke, Disability Resource Facilitator at 902-585-1823, disability.access@acadiau.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.

Laboratory Work

You must fully complete (hands-on portion and report) at least five 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.
