Chemistry 2303: Inorganic Chemistry

Course Outline – Fall 2022

Professor:	Dr. Bobby Ellis (office: 115 Elliott Hall; e-mail: bobby.ellis@acadiau.ca)
Lectures:	Mon., Wed. and Fri. 10:30-11:20 pm in 303 Elliott Hall
Tutorials:	Optional tutorials will be held prior to midterm and final exams
Office Hours:	Tues. 9:00-11:00 am or by appointment
Labs:	Tuesdays 1:00-4:00 pm in 221 Elliott Hall Wednesdays 1:00-4:00 pm in 221 Elliott Hall
Textbook:	No required textbook, recommended access to an inorganic textbook: 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
Resources:	Supplementary problems and other course resources: http://www.acadiau.ca/~bellis/resources/
Other:	Students are **strongly recommended** to have a molecular model kit

Evaluation:

Assignments/Quizzes	5%	
Nomenclature	5%	
Lab Work	30%	
Midterm Exam #1	10%	Wednesday, Oct. 12, 2022
Midterm Exam #2	10%	Wednesday, Nov. 9, 2022
Midterm Exam #3	10%	Monday, Nov. 21, 2022
Final Exam	30%	

Grade Conversion:

Alpha	GPA	%
A+	4.33	90 – 100
A	4.00	85 – 89
A–	3.67	80 – 84
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 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.

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)

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

Acadia University is dedicated to improving access to campus life for all students with disabilities. While we attempt to ensure that all courses are accessible, we recognize that there are barriers that need to be addressed on an individual basis. Students who require accommodations to complete coursework or otherwise fully participate in class should contact Accessible Learning Services directly as soon as possible.

Please visit Accessible Learning Services website:
https://www2.acadiau.ca/student-life/accessiblelearning.html
or email Accessible Learning at accessible.learning@acadiau.ca for more information.

Commitment to Equity

Acadia University is committed to becoming a culturally safe and anti-oppressive community. This can only be achieved where there are simultaneous efforts to eliminate all forms of discrimination and harassment from our campus community, including the elimination of all discrimination, harassment and violence based on one's identity, including

but not limited to, gender, race, class, ethnicity, sexual orientation, disability, gender identity, gender expression, and Indigeneity.

The Equity, Diversity and Inclusion Officer is available to **students, staff, and faculty**. The fundamental objective of the Equity Office is to **prevent discrimination, sexual harassment, and personal harassment** from occurring, in part by managing Acadia's Policy Against Harassment and Discrimination. For more information, as well as for resources for students who believe they may have experienced or witnessed discrimination, sexual harassment, or personal harassment please contact Acadia's Equity, Diversity and Inclusion Officer, Polly Leonard, MSW, RSW (she/her/hers) at equity@acadiau.ca, and check out the website.