

Chemistry 3313: Transition Metal Chemistry

Course Outline – Winter 2023

- Professor: Dr. Bobby Ellis (office: 115 Elliott Hall; e-mail: bobby.ellis@acadiau.ca)
- Lectures: Mon., Wed, and Fri. 10:30-11:20 am in 303 Elliott Hall
- Tutorials: Optional tutorials will be held prior to midterm and final exams
- Office Hours: Mon. and Wed. 9:00-10:00 am (or by appointment)
- Labs: Wednesdays and Thursdays 1:00-4:00 pm in 221 Elliott Hall
- 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
- 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%	
	Research Project	10%	
	Lab Work	25%	
	Midterm Exam #1	10%	Monday, February 13, 2023
	Midterm Exam #2	10%	Wednesday, March 8, 2023
	Midterm Exam #3	10%	Wednesday, March 22, 2023
	Final Exam	25%	

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 will earn a failing grade in course.

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.

The goals of this course are to solidify and build upon the concepts of chemical structure and bonding for transition metals presented in CHEM 2303, and to introduce organometallic chemistry.

The topics covered in this course include:

1. Inorganic Fundamentals
2. Coordination Chemistry
3. Spectroscopy
4. Reactions Mechanisms
5. Organometallic Chemistry
6. Catalytic Cycles
7. Unusual Bonding Arrangements
8. Metal-Metal Multiple Bonds
9. Bioinorganic Chemistry

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

If you are a student with documentation for accommodations or if you anticipate needing supports or accommodations, please contact:

Ian Ford, Accessibility Resource Facilitator at 902-585-1520, disability.access@acadiau.ca
Marissa McIsaac, Manager, disability.access@acadiau.ca

Accessible Learning Services is located in Rhodes Hall, rooms 111-115.