



**CHEM C0200 Inorganic Chemistry**  
**Prof. Glen Kowach**  
**Department of Chemistry**  
Spring 2007

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**Catalog Description:**

Concepts of inorganic chemistry, including bonding theory, structure of complexes, symmetry, and reaction mechanisms.

**Prerequisites:** CHEM 26100, 26300, 33000

**Suggested Co-requisites:** CHEM 33200 OR CHEM 33500

**Special Consideration:** Open to Juniors and Seniors with a 2.75 GPA

**Hours/Credits:** 2.5 hours per week, 3 cr.  
Lecture is given twice per week.  
M, W 6:30 pm (6:40 pm) – 7:45 pm (7:55 pm)  
Room: MR-1307

**Textbook:** Inorganic Chemistry, 4<sup>th</sup> ed. by D. F. Shriver, P. W. Atkins et al., 2006. ISBN – 0-7167-4878-9

**Blackboard:** Information will be posted occasionally on the website. Please log on to check if you have access.

**Office Hours:** After class on Monday and Wednesday.

**Topics covered:**

1. Foundations
  - a. Atomic Structure
  - b. Molecular Structure and Bonding
  - c. The structure of Simple Solids
  - d. Acids and Bases
  - e. Oxidation and Reduction
  - f. Physical Techniques in Inorganic Chemistry
  - g. Molecular Symmetry
  - h. An introduction to Coordination Compounds
2. The Elements and Their Compounds  
An encyclopedic overview of the chemistry covering many of the elements of the periodic table.
3. Frontiers  
An introduction to special topics including solid state and materials chemistry, nanoscience, catalysis, and bioinorganic chemistry.

**Grading Scheme:**

Homework assignments  
Report (for students enrolled as graduate students)  
In-class Exams (2)  
Final Exam

**The final grade is calculated as follows:****Undergraduates:**

Two in-class examinations (25% each)	(50%)
Final Exam	(40%)
Homework	(10%)

**Graduates:**

Two in-class examinations (20% each)	(40%)
Final Exam	(40%)
Homework	(10%)
Report	(10%)

**Schedule:**

1/29	Ch. 1
1/31	Ch. 2
2/5 – 2/7	Ch. 3
2/14 – 2/15	Ch. 4 (Note: 2/15 is a Mon. schedule)
2/21 – 2/26	Ch. 5 (Note: 2/21 is a Mon. schedule)
2/28 – 3/5	Ch. 6
3/7	Exam I
3/12 – 3/14	Ch. 7
3/19 – 3/21	Ch. 8
3/26	Ch. 23
3/28	Ch. 24
4/11	Ch. 25
4/16	Ch. 26
4/18	Exam II
4/23	Chs. 9, 10
4/25	Chs. 11, 12
4/30	Chs. 13, 14
5/2	Chs. 15, 16
5/7	Chs. 17, 18
5/9	Chs. 19, 20
5/14	Chs. 21, 22
5/16	Review
	Final Exam

**Problem Sets:** A problem set will be announced for each chapter. The problem set is due in class the following lecture after the material is covered.

**Date Modified:** 1-29-2007