

Chemistry 241. Intermediate Descriptive Inorganic Chemistry
University of Massachusetts-Spring 2010

Time: MWF 1:25 – 2:15

Place: ISB 329

Grading: Letter Grade or P/F

Required Text: *Inorganic Chemistry*, Shriver, Atkins *et al.*, 4th edition, Freeman Publishing, 2006. Available at the Textbook Annex.

Course website: <http://people.chem.umass.edu/cjoseph/chem241/>

Publisher's website: <http://bcs.whfreeman.com/ichem4e/default.asp>

Instructor:

Dr. Crisjoe Joseph

Email: joseph@chem.umass.edu

Office: 503 Lederle Graduate Research TowerA

Office hours:

T 11:00a – 12:00p

W 2:15p – 3:30p

Attendance Policy: Attendance at all lectures is highly recommended but not required.

Add/drop: Use SPIRE. For problems and after the add/drop period ends, see Ms Marie Whalen in Gen. Chem. Office.

Academic Honesty: See the *Code of Student Conduct and Academic Regulations*, available from the Dean of Students Office (http://www.umass.edu/dean_students/). Bottom line: Dishonesty is not tolerated.

Learning Resources

- Course TA. Name, place, and office hours TBA.
- Chemistry Resource Center (CRC) for informal help from Chemistry TAs.
- Course website (see above) will contain copies of the syllabus, homework assignments and solutions, and important class information.

Homework

Assignments will be made approximately weekly. Solutions will be posted on the course web site. Although textbook homework will not be collected, it is of great utility in learning concepts and principles. Use this to improve your understanding of the course material.

Examinations

Three examinations during scheduled class times worth 100 points each + comprehensive final exam worth 200 points.

Grading

Grades are based on the performance on the hour exams plus the final exam. Final grades will be based on the point total of all four exams, with the lowest hour exam score replaced by the performance (half the score) of the final exam if that is the higher score.

Make-Up policy

No make-up exams will be given without notification of absence *prior* to exam time, and *written* documentation of mandated absence from an exam due to legal, medical, military, or other extraordinary *University-related* reason. Make-up exams for the final are governed by University policy.

Tentative Schedule

Week #	Dates	Chapters	Topics
1	Jan. 20, 22,	1	Periodic Properties
2	Jan. 25, 27, 29	2, 4	MOs, Lewis acids and bases (HSABT)
3	Feb. 1, 3, 5	7, 8	Coordination Chemistry; isomers, symmetry
4	8, 10, 12	19	Coordination Chemistry, Crystal Field Theory
5	16, 17,		and intro to Molecular orbital theory
<u>Feb 19, First EXAM</u>			
6	22, 24, 26	3	Solid State, ionic solids, Semiconductors
7	Mar. 1, 3, 5	10, 11	Groups 1 and 2 s-block metals
8	8, 10, 12	5	Redox Chemistry
9	<i>spring break</i>		
10	22, 24,	9	Hydrogen and Fuel Cells
<u>Mar 26, Second EXAM</u>			
11	29, 31, Apr. 2	12, 13	Groups 13, 14
12	5, 7, 9	14	Group 15
13	12, 14, 16	15, 16, 17	Group 16, 17, 18
14	21	25	Catalysis
<u>April 23, Third EXAM</u>			
15	26, 28, 30	26	Intro to biological inorganic chemistry
16	May 4,		TBA
<u>Final EXAM TBA</u>			
