

Chem 3120, Chemical Systems II
Spring 2001

Instructor: Sandra S. Eaton

Office SGM 178

Office Hours: 1-2 MWF, or by appointment

Text: *Inorganic Chemistry*, D. Shriver and P. Atkins, 3rd ed., 1999

Tentative Course Outline

Date	Topic	Reading
Mar. 26	Overview	
28	Acids and bases	Ch.5, p. 143-158
29 (Thur)	Lewis acids	Ch.5, p. 159-173
30	Oxidation and Reduction	Ch.6, p. 184-208
Apr. 2	No class – met Mar. 29 th instead	
4	No class – meet Apr. 12 th instead	
6	No class – meet Apr. 19 th instead	
9	d-metal complexes	Ch.7, p. 211-226
11	"	Ch.7, p. 227-247
12 (Thur)	Metals	Ch. 9, p. 283-300
13	"	Ch. 9, p. 300-312
16	"	Ch. 9, p. 312-326
18	Boron group	Ch. 10, p. 331-351
19 (Thur)	Carbon group	Ch. 10, p. 351-369
20	Exam 1	Through ch. 10, p. 351
23	Halogens	Ch. 12, p. 405-428
25	Noble gases	Ch. 12, p. 429-432
27	Electronic Spectra	Ch. 13, p. 437-447
30	"	Ch. 13, p. 447-457
May 2	Spectra and bonding	Ch. 13, p. 459-462
4	Reaction mechanisms	Ch. 14, p. 467-485
7	"	Ch. 14, p. 485-495
9	d- and f-block organometallics	Ch. 16, p. 538-557
11	"	Ch. 16, p. 557-570
14	"	Ch. 16, p. 570-579
16	Catalysis	Ch. 17, p. 584-593
18	Exam 2	Through ch. 16
21	Catalysis (cont.)	Ch. 17, p. 593-600
23	"	Ch. 17, p. 600-611
25	Bioinorganic chemistry	Ch. 19, p. 645-654
28	Holiday	
30	Bioinorganic chemistry	Ch. 19, p. 655-661
June 1	"	Ch. 19, p. 661-671
4	Review/wrap-up	
5	Comprehensive Final Exam	

Class Format

The class will be a combination of lecture and discussion. You are expected to read the assigned material prior to coming to class. It is anticipated that approximately the first half of the period will be a lecture providing the instructor's perspective on key points from the reading, including additional background information on related topics. The latter part of each class will be a group discussion of end of chapter questions that were announced the prior class period. Part of your grade will be based on the quality and quantity of your contributions to the in-class discussion.

Journal article presentation

Each student will make a presentation of about 10 minutes on an article from *Journal of the American Chemical Society* or from *Inorganic Chemistry*. The article should be related to a topic discussed in class and must have been published within the past two years. The article must be selected, approved by the instructor, and date of presentation scheduled by April 20th. There will be no more than one student presentation per class meeting.

Grading

Class Participation	20%
Journal article presentation	10%
Exam 1	20%
Exam 2	20%
Final exam	30%