

Chemistry 4210
Advanced Inorganic Chemistry
Fall 2007

Dr. Stephanie Myers
C3008, Science Building
office hrs: TR 9:45-10:30 am; MW 1:30-2:30 pm
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Objectives: To introduce or expand topics in Inorganic Chemistry including: nuclear chemistry, molecular orbital theory, group theory, crystal field theory, and band theory.

Materials: *Inorganic Chemistry* by Miessler and Tarr, a lab notebook (composition book is ok) and an email address are required. It is also recommended that you dig out your molecular model kit and a general chemistry text. Many materials for this class and course calendar will be published on the Internet. These can be accessed through campus pipeline or the instructor's website.

Assignments

Exams: There will be three in-class exams. One of these three exams will be your final exam which is NOT *specifically* cumulative. Each exam (including the final) will be worth 100 points.

The exams will be timed and essay in format. A limited amount of resources may be used on the exam. Limits on contents and quantity will be specified before each exam.

Homework: There may be homework assignments to give you a feel for the sort of skills you need to acquire for the exam. Such homework assignments may or may not be graded and may be distributed by email.

Poster: On Thursday, October 4, instead of the regular lab, each student will present a poster on the descriptive chemistry of an element or group of elements. The style described in *Style Guide for Chemistry Reports* or the *ACS Style Guide* must be used. You may choose your element(s), with instructor approval. No repeats of topics will be allowed and topics will be assigned on a "first come, first serve" basis. Do not expect to cover everything. Completeness is better than breadth. For full credit, you are expected to use at least three sources. The poster and its presentation are worth 50 pts. Students repeating the course may not use the same topic as they did previously.

Labs: Bring your lab notebook to every lab session. The usual chemistry safety precautions in terms of dress (closed toed shoes, shoulder-to-knee coverage, safety glasses) and behavior apply. Labs will not follow a standard format, be prepared to be flexible. Each lab assignment will have a point value assigned at the time of the lab. This will normally be 10-20 points. Your lowest lab score will be dropped. Your lab score should add up to be equivalent to at least one test grade...maybe two. There will be no make-ups on labs.

Lab time will be used for activities other than lab, for example, poster sessions and tests will be given during lab time.

Point Distribution and Grading

Grades will be based on points earned out of points possible.

Where: 90-100% = A, 80-89% = B, 70-79% = C, 60-69% = D, <60% = F

General Policies

Make-ups: Make-ups require a very good, documented excuse and must be scheduled within 24 hours after the missed assignment/test and completed within one week. The make-ups will be more difficult than the original. Make-ups are allowed for exams only.

Late Assignments: Each Assignment will be given a due date and time. If the assignment is 0-3 days late, there will be a 25% (of the possible points) penalty. If the assignment is 3-7 days late, there will be a 50% penalty. Assignments will not be accepted more than one week late. Computer problems and being late to pick up or start the assignment are not considered legitimate excuses for late assignments. No assignment will be accepted after December 6. Note: Your poster will be counted as late if it is not hung by 10 minutes before the official start of the poster session.

Attendance: You are expected to attend class regularly and on time, although there is no formal attendance requirement. If you miss a class, it is YOUR responsibility to find out what material was covered and any announcements made. Five or more unexcused absences during the semester is considered cause for the instructor to drop a student from the course. Therefore, sometime after midterm I may drop students who have stopped attending class or whom I have spoken to about attendance, in which case they will receive a WF.

Etiquette: Cell phones and pagers are disruptive to the class. Anyone whose cell phone or pager (or equivalent device) disrupts the class may be asked to leave class and not return during that class period. If a test is in progress, the test must be turned in when the student leaves.

Probable Order of Topic Coverage

<i>Topic</i>	<i>Corresponding Chapter(s)</i>
Atoms	
electrons	2, 11-2, 10-1-2
nucleus	G-Chem, Class website
Molecules	
covalent bonding	3,5
coordination compounds	9,10
symmetry	4
spectroscopic properties	11
reactivity	6
Extended structures	
crystalline solid state	7
bioinorganic	16

Calendar

turn in email address* (5).....	8/24 (noon)
deadline to choose poster topic*.....	8/24 (noon)
test one (100).....	9/20
Poster session (50).....	10/4 (2:30 pm - 5:15 pm)
test two (100).....	11/1
test three (100).....	12/12--10 am-noon

*Assignment must be turned in by email.