

Chemistry 211
Fall 2009
Inorganic Chemistry

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Office hours: Mondays, 3:00 pm and Thursdays, 3:00 pm or by arrangement

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Textbook "Inorganic Chemistry," 3rd ed., Miessler and Tarr, Prentice-Hall, Inc., 2004

A comment on the course textbook. I am concerned about the cost of textbooks to you and am not happy with the cost of the Miessler/Tarr book. There is a paperback international edition of this text that does **not** have color which is much cheaper than the hard cover version. I also urge you to look for used versions of the M/T text that can be obtained at a considerable savings via the web. There are other books as well that contain similar information and are available on reserve. You may also find, with a little sleuthing, notes on the web from similar courses but I can not vouch for their correctness. On the course website, I will post supplemental files (pdf and ppt) that you may find useful as well.

Other Suggested References

- "Shriver and Atkins Inorganic Chemistry," 4th Edition, Atkins, Overton, Rourke, Weller and Armstrong, W. H. Freeman, 2006
- "Basic Inorganic Chemistry," 3rd ed., Cotton, Wilkinson and Gaus, John Wiley and Sons, 1995
- "Advanced Inorganic Chemistry," 6th ed. Cotton, Wilkinson, Murillo and Bochmann, John Wiley and Sons, 2003
- "Concepts and Models of Inorganic Chemistry," Douglas, McDaniel and Alexander, John Wiley and Sons, 1994
- "Inorganic Chemistry, Principles and Applications," by Butler and Harrod, The Benjamin/Cummings Publishing Co., Inc., 1989
- "Chemical Applications of Group Theory," 3rd ed., Cotton, John Wiley and Sons
- "Molecular Symmetry and Group Theory," by Carter, John Wiley and Sons, 1998
- "Inorganic Chemistry: Principles of Structure and Reactivity" (4th Edition) by Huheey, Keiter, and Keiter, Harper and Row, 1997
- "Principles of Bioinorganic Chemistry," Lippard and Berg, University Science Books, 1994
- "Organometallic Chemistry", Spessard and Miessler, Prentice-Hall, 2000

Important Journals and Review Series

Journal of the American Chemical Society	Inorganic Chemistry
Organometallic Chemistry	Progress in Inorganic Chemistry
Advances in Organometallic Chemistry	Accounts of Chemical Research
Inorganica Chimica Acta	

Examinations

Three hourly examinations and a final are planned for the course. The three hourly exams will be held on September 29 (Tues), October 27 (Tues) and November 24 (Tues), 2009 from 8:30 to 9:40 am in CSB 209. Class will follow on those dates (except for Oct. 27). The date for the final will be determined by the Registrar.

Problem Sets and Workshops

Problem sets will be assigned regularly but will not be graded. Some of the problems will be similar to examination problems. Help in understanding how to do the problems can be obtained from the course teaching assistants and me during office hours or by appointment. I encourage you to work with other members of the class in doing the assigned problem sets or at least in comparing how you and others tackled specific problems. Problems in inorganic chemistry and of this course in particular are usually not of the simple plug-and-chug type.

For those who are interested in and benefit from workshops, there will be informal workshop time 8:30-9:30 am in CSB 209 on Thursdays. The problems to be dealt with during the workshops will be discussion problems and exam-type questions. I will be in the classroom (CSB 209) on Tuesday mornings from around 9 am to answer questions informally before class.

*A comment on working together or comparing how you answered specific problems: If you truly understand your answer and the principles and specifics regarding it, then you will be able to explain it to others clearly. If you do *not* fully understand what you are explaining, you will soon see that your answer doesn't hold. The process of discussing answers helps to teach each of you what you know and what you don't more than simply reviewing class or book notes.*

Element Groups

The class will be divided into 4-5 person element groups. These groups will work together as teams for two class presentations of no more than 10 minutes each. For these presentations, a single grade will be given to all members of the group. These groups will be chosen randomly. For these presentations, it is important to work together as a team and integrate all efforts into a unified presentation. For success, each of you will need to find both time and commitment.

Grading for the Course

The grade for the course will be based on the three hourly examinations (60 %), the final (30 %), and the element group presentations (10 %).