

Spring 2014 – CHEM-457
Inorganic Chemistry
Tues + Thurs 11:00 – 12:15 PM
BRL 207

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Office Hour: Monday 11:00 – 12:00 PM, BRL 034 or by appointment (please email)

REQUIRED MATERIALS

Textbook: *Inorganic Chemistry* – 5th Ed, Miessler, Fischer & Tarr
(ISBN: 0321811054)

Website: http://www.udel.edu/chem/rosenthal/CHEM457/Chem457_2014.html

COURSE INFORMATION

This course will focus on the molecular structures and properties of inorganic complexes and compounds. We will study concepts in bonding, trends in periodic properties, molecular symmetry and spectroscopy, inorganic reaction mechanisms, coordination chemistry, and acid-base interactions. We will introduce several broader topics including organometallic chemistry and bioinorganic chemistry.

COURSEWORK AND GRADING

Assignments and work responsibilities are outlined as follows:

Problem Sets

Will be provided periodically on the course website. These problem sets will not be graded but rather will provide a means for students to practice and learn key principles and concepts germane to the class. *These problem sets should not be treated as optional!* Completing these assignments will be important to successfully navigating this course and performing well on exams.

Midterm Examinations – 30% Each (60% Total)

Will be administered in class on 3/11 and 4/17. More details will be given as this date approaches.

Final Examination – 40%

Time and place to be determined by registrar's office.

ACADEMIC INTEGRITY

All requests for regrades must be submitted in writing within 24 hours of the material being returned. Please note, the entire exam will be regraded; if grading errors are found the final grades may be higher or lower than the original score. Also note that photocopies may be made prior to

returning exams. If answers are altered, it will be obvious, provable and reported to the UD Office of Student Conduct (see below).

ACADEMIC INTEGRITY

Academic dishonesty will not be tolerated in this class. Such behavior is unethical, creates a negative atmosphere and inhibits learning. This later point is most critical as the material covered in this course is critical to your education and may be important to your future career path. It is expected that you will learn the material covered in this course because you will need it to be a functional chemist. If you have any questions about this issue, please review the University of Delaware's Academic Dishonesty Policy: <http://www.udel.edu/stuguide/13-14/code.html>.

LEARNING GOALS – It is anticipated that upon completion of this course, students will be able to meet the following:

- Understand the basic concepts of atomic structure and periodicity
- Be capable of applying the concepts of chemical bonding
- Be able to connect electronic and molecular structure with chemical reactivity
- Develop an understanding of transition metal chemistry
- Be prepared for future, more specialized courses in inorganic chemistry