CHEM 2130: Chemistry of the Elements Instructor: Professor Bruce E. Bowler

**Office**: SGM 251 **Phone**: 871-2985

E-mail: bbowler@du.edu

Web Site: http://www.du.edu/blackboard/

Text: Descriptive Inorganic Chemisty, Third Edition, Geoff Rayner-Canham and Tina

Overton, W.H. Freeman and Company, 2002. Lectures: M, W, F, 9:00-9:50 am in Olin 205. Study session: Th 9:00-9:50 am in Olin 205.

## **Course Guidelines:**

**Exams:** There will be two in-class hour exams worth 200 points and a final exam worth 300 points. Each hour exam will cover the material presented in the 11 lectures preceding the exam. The final exam will be comprehensive. **There are no make-up exams.** If you cannot take an exam at the scheduled time you must make arrangements with Dr. Bowler at least one week in advance to take the hour exam at an alternate time. If a student's performance is better on the final exam than on either of the two hour exams, the final exam grade (adjusted to a 200 point scale) will replace that hour exam grade.

**Homework:** Problem assignments from the text will be made each week. Answers will be posted on Blackboard the following week. Homework will not be graded, it is meant as a study aid.

Lab Reports: The lab and the lecture are one course. Each lab will be worth 50 points toward your overall grade. If you are unable to attend your regular lab section during a particular week, you must attend one of the other lab sections that week. If you attend a different section during a given week, it is your responsibility to tell the lab instructor of the section you attend that week, who you are and what your regular lab section is or you may not receive credit for attending lab that week.

## Point distribution

Hour Exams: 400 points Final Exam: 300 points

Lab Reports: 400 points (will be adjusted to count for 25% of your total grade)

**Tentative Schedule of Lecture Topics** 

Date	Day	Topic
3/22/04	M	Chapter 7: Acids and Bases; Bronsted-Lowry Theory
3/24/04	W	Chapter 7: Lewis Theory
3/26/04	F	Chapter 7: Pearson Hard-Soft Acid-Base Concept
3/29/04	M	Chapter 19: Transition Metal Chemistry; Structure and Ligands
3/31/04	W	Chapter 19: Structure and Ligands
4/2/04	F	Chapter 19: Nomenclature and Bonding
4/5/04	M	Chapter 19: Crystal Field Theory
4/7/04	W	Chapter 19: Crystal Field Theory and Spectroscopy
4/9/04	F	Chapter 19: Pearson HSAB and Metal Complexes
4/12/04	M	Chapter 22: Organometallic Chemistry
4/14/04	W	Chapter 22: Organometallic Chemistry
4/16/04	F	Hour Exam I
4/19/04	M	Chapter 22: Organometallic Chemistry
4/21/04	W	Chapter 22: Organometallic Chemistry
4/23/04	F	Chapter 22: Organometallic Chemistry
4/26/04	M	Chapter 4: Metallic Bonds
4/28/04	W	Chapter 4: Metallic Bonds
4/30/04	F	Chapter 5: Ionic Bonds
5/3/04	M	Chapter 5: Ionic Bonds
5/5/04	W	Chapter 6: Inorganic Thermodynamics
5/7/04	F	Chapter 6: Inorganic Thermodynamics
5/10/04	M	Chapter 6: Inorganic Thermodynamics
5/12/04	W	Chapter 8: Oxidation and Reduction
5/14/04	F	Hour Exam II
5/17/04	M	Chapter 8: Oxidation and Reduction
5/19/04	W	Chapter 8: Oxidation and Reduction
5/21/04	F	Chapter 8: Oxidation and Reduction
5/24/04	M	Chapter 20: Properties of Transition Metals
5/26/04	W	Chapter 20: Properties of Transition Metals
5/28/04	F	Chapter 20: Properties of Transition Metals
6/2/04	W	Final Exam, 8:00-9:45 am, Olin 205