Chemistry 451 - Theoretical Inorganic Chemistry - Fall 2009

Instructor: Prof. Cindy Schauer, A606 Kenan, 2-0808, schauer@unc.edu
Class Time: 9:30 – 10:45 am: T, R; Mitchell 305
Prerequisite: Chem 450, Intermediate Inorganic Chemistry
Web Site: Problems sets, keys, and other class information will be disseminated via the course website maintained in blackboard. http://blackboard.unc.edu

Other Reference Books:

Outline of Topics:

Group Theory Principles
Selected Topics: Properties of Groups, Mathematics of Groups, Classification of Molecules into Point Groups, Character Tables.

Group Theory Applications
Selected Topics: Molecular Vibrations; Crystal Field Theory; Molecular Orbital Theory with an emphasis on symmetry considerations and bonding in transition metal complexes.

Problem Sets, etc.: 
Problem sets will be assigned frequently. You are expected to keep the worked problems in a notebook. Your notebooks will be collected twice over the semester. There will be occasional in-class pop quizzes, and other special assignments.

Exam Dates:
On or about Tuesday, September 15 – In-class short exam 10%
On or about Thursday, October 15 - Exam 2 20%
On or about Tuesday, November 24 - Exam 3 20%
Thursday, December 17 - Comprehensive final exam, 8 am, KE 121 35%

Grading:
Exams (85%, see above), Problem sets etc. (15%)