Chemistry 451 - Theoretical Inorganic Chemistry - Fall 2007

Instructor: Prof. Cindy Schauer, A606 Kenan, 2-0808, schauer@unc.edu

Class Time: 8:00 – 9:15 am: T, R; Stone Center 210 (across South Rd. from the Chemistry Buildings)


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:

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.

Exam Dates:

On or about Tuesday, September 11          In-class exam, fundamentals                  10%
On or about Tuesday, October 16             Proposed Evening exam, 7-9 pm               20%
On or about Tuesday, November 20            Proposed Evening exam, 7-9 pm               20%
Thursday, December 13                       Comprehensive Final exam, 8 am, ST 210       40%

Grading:

Exams (90%, see above), Problem sets and quizzes (10%)