Chemistry 502
Advanced Inorganic Chemistry II
SYLLABUS Spring 2012

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This course will deal primarily with the chemistry of transition metals and transition metal complexes. Particular emphasis will be placed on magnetic, electronic and thermodynamic properties, reactivities, reaction mechanism, structure, bonding and general features.

Material covered will be taken from the following chapters of DM&A:

- Chapt. 8 Oxidation-Reduction Reactions
- Chapt. 3,4 Symmetry (Group Theory) Discrete molecules
- Chapt. 9 Models and Stereochemistry of Coordination Compounds
- Chapt. 10 Spectra and Bonding of Coordination Compounds
- Chapt. 11 Reaction Mechanisms of Coordination Compounds
- Chapt. 12-14 Organometallic Chemistry
- Chapt. 15 Chemistry and Periodic Trends among the Metals
  (Student Presentations)

Grading will be based on two exams and a final (Thursday May 3 @8 AM), several homework assignments, a short report, and classroom presentation.

Some other Useful Texts:
- Cotton: Chemical Applications of Group Theory
- Lewis/Wilkins: Modern Coordination Chemistry
- Wilkins: Kinetics and Mechanism...
- Day/Selbin: Theoretical Inorganic Chemistry
- Basolo/Pearson: Mechanisms of Inorganic Reactions
- Cotton & Wilkinson: Advanced Inorganic Chemistry
  (6th ed with Murillo & Bochman: earlier editions are stronger on principles)
- Figgis: Introduction to Ligand Fields (Now Figgis & Hitchman)

The above are some of the "classics" to which I will often refer. There are a number of other good texts and monographs in the URI library and in my office.