

Course title: Inorganic Chemistry I**Instructors**

Sonny Lee, Office Frick 201A, tel 258-3879, sclee@chemvax

Charles Dismukes, Office Hoyt 7B, tel. 258-3949, dismukes@chemvax

Readings and Assignments:*ca 50 pages/week* from textbook and handouts; weekly problem set**Grading:** two exams + final exam**Textbook:** Miessler and Tarr, Inorganic Chemistry**Outline**

Week	SUBJECT	Readings
Oct 25-31	Break	
Nov 1-7	Acid-Base (ie., Donor/Acceptor) Concepts: measuring H ⁺ affinities, hydrogen bonding, electrostatics effects, thermodynamics of solution ionic equilibria	6
8-19	Coordination Chemistry: applications of crystal and ligand field theories, determinants of ground state electronic configurations, magnetic properties	8, 10.3, 12.1-.3
20- Dec 4	Applications of Bonding: electronic state spectra & spectroscopy, reactivities of excited vs ground states (lifetimes, photochemistry)	9
Dec 5	Stereo-Chemistry and -Isomerism: chiral point groups, selectivity of binding of chiral molecules	10, 11.5
6-12	Rates of reaction in ground vs excited states Marcus Theory for e ⁻ and atom transfer reactions kinetics of reactions that depend on H ⁺ or OH ⁻	11