CH 1130. Outline of material. Lectures are held in CH215 from 1-2PM on Thursdays.

September 2-- Introduction to the Chemistry Program and Department at MTU

September 9-- Tour of the Peninsula Copper Industry plant up in Hubbell. Life as an Industrial Chemist.

September 16-- [Link: http://www.chemistry.mtu.edu/pages/courses/ch1130-rluck/Orientation.htm] This features a detailed description of Chemistry methods, databases, programs etc that you may find useful.

September 23-- Various questionnaires on life at MTU and the concept test

September 30-- Discussion of the concept test

October 7-- **Ms. Lois Blau**
1. Review contents and key points of booklet "Futures through Chemistry"
2. Introduce the Myers-Briggs Type Inventory, page 53 of booklet, other references and personal experience
3. Reserve about 30 minutes to take the MBTI

October 14-- The Great Ideas of General Chemistry

October 21-- Advising meeting. Be sure and bring your questions regarding your course selection for next semester. Try to have at least 15 course hours selected. (Selected viewing of the “Origins” DVD, if it has arrived).

October 28-- **Dr. Jian Liu** “Nanomaterials for Chemical and Biological Sensing, Drug Delivery, Molecular Electronics, and Novel Nanocatalysts”

**Dr. Bela Torok** “Asymmetric Catalysis: Enantio- and diastereoselective heterogeneous catalytic hydrogenations, development and application of immobilized (solid) asymmetric catalysts, Green chemistry, Chiral fluorine chemistry”
November 4-- **Dr. Sarah Green** "Origin and fate of DOC in terrestrial, lake, and marine environments; methods for detection of free radicals, photochemical transformations of natural and anthropogenic organic compounds in the environment; oxidative degradation reactions; response of aquatic systems to climate change; effects of electrostatic charge and ionic strength on fast reaction kinetics; behavior of metal contaminated sediments in the Lake Superior basin; fluorescence-based analytical methods; integration of biological, geological, physical, and chemical data for understanding global cycles."

**Dr. Pushpalatha Murthy** "Phosphoinositides in plant cells biosynthesis, subcellular localization, and biological role of this novel class of phosphoinositides. Phytase Phytic acid, myo-inositol hexakis phosphate; the major storage form of inositol phosphates."

November 11-- **Dr. Dallas Bates** "Pyrrole Synthesis, Sulfur Chemistry and Synthesis of Novel Heterocyclic Systems"

**Dr. David Chesney** "Analytical Separations using Supercritical CO₂"

November 18-- **Dr. Larry Stevens** "Reflections of an Industrial Chemist"

**Dr. Marshall Logue** "Carbohydrates, C-nucleosides and Nucleotide Analogues"

December 2-- Discussion of the Myers-Briggs Type assessments.

December 9-- **Dr. Martin Thompson** "Development of small molecule inhibitors of interactions of specific transcriptional activators (or repressors) with DNA or with the basal transcription machinery could provide highly selective regulators of gene expression and thus highly selective therapeutic agents"

**Dr. Eugene Urnezius** "Novel polyphosphine and poly(phosphine/tioether) ligands designed to function as "housing" for bimetallic transition metal complexes and their multimetallic assemblies metal-containing macromolecular structures; activation of small molecules (N₂, CO₂) on transition metal centers."