**Chemistry 521 Test #1 Outline**

**Material Covered:**

1. Review topics: Chapter 1 and notes/review sheets from class.

Some key items (besides familiarity with terms)

* Naming/Formula writing
* Periodic table information
* Reaction Types & Balancing
* Chemical/Physical Properties/Change
* Atomic Structure information: drawing Lewis, Bohr diagrams, determining protons, neutrons, electrons, mass #, etc.

1. Chemical Bonding: Chapter 5

* Basic properties of ionic and molecular compounds
* Be able to discuss and show how the three bond types (ionic, covalent, metallic) occur and be able to compare them.
* Know well the structures of ionic compounds and metals.
* Be able to use electronegativity values to determine bond type
* Knowledge of various other terms and information provided throughout.

1. Section 6.1: Structure of Molecular Compounds

* Be able to draw Lewis Structures given formulas for molecular compounds
* Be able to recognize and draw resonance structures when applicable.
* Be able to describe how co-ordinate covalent bonds can exist and how they are different from typical covalent bonds.
* Using VSEPR theory, be able to draw the 3D Lewis Structure of molecules and state the shape name, bond angle, and assign polarity.

Questions to try:

Chapter 1 Review(pgs. 37-38): 1-3, 6-10, 12-15

Chapter 5 Review (pgs. 181-182): 1-10, 13-22, 24

Chapter 6: pg 193: 6-7, pg 196: 8-10, lab sheet