

## **CH 221 Chapter Four Part 1 Study Guide**

- Be able to balance simple chemical equations and understand the information conveyed by the equation (number of moles of reactants, etc.)
- Know how to interpret a chemical equation – states of matter, quantity of reacting materials, etc.
- Understand how to convert from the mass of element A to the mass of element B using chemical equations. Remember to travel through the “molar bridge” when converting masses.
- Understand the concept of stoichiometric factor and be able to convert between different quantities (mass, moles, products, reactants, etc.)
- Define limiting reagent and know how to determine which reactant is limiting.
- Explain the differences between actual yield, theoretical yield and percent yield. Know how to calculate or determine the values for each type of yield.
- Be able to use stoichiometry principles to analyze a mixture or to find the empirical formula of an unknown compound.
- Understand the process whereby element percentages (i.e. %C) arrive.
- Be able to solve and understand the assigned problems in problem set #4.