**Chem328 Essential Questions and Syllabus**

*Essential Questions, sections and book chapters (Orange book)*

1. Are there any basic skills/theory in the study of chemistry?

a. IntroMass section (Ch1,Ch2, Ch3.1-Ch3.2)

b. IntroEnergy section (Ch1.4, Ch3.3, Ch17.1)

2. Are there any basic particles?

a. Atomic structure section (Ch4, Ch5.1)

b. Electronic configuration & Atomic Mass section (Ch5.2,Ch5.3)

c. Periodic Table (Ch6)

3. Can basic particles group together and what happens if they do?

1. Molecular Compound & Mole Concept section

 (Ch8.1-8.3, Ch9.3, Ch10.1)

1. Ionic Compound & Two Step Mole section

(Ch7, Ch9.1, Ch9.2, Ch10.2, Ch10.3)

1. Chemical Reaction & Stoichiometry section

(Ch11 and Ch12)

1. Oxidation-Reduction Reactions and Electrochemistry

(Ch20, Ch21)

e. Kinetics and Equilibrium (Ch18)

f. Polarity and Phase of Matter (Ch8.4, Ch13)

g. Gases and Kinetic Theory (Ch14)

h. Solutions (Ch15, Ch16)

i. Acids and Bases (Ch19)