Montgomery County Community College
CHE 152

- A. Concentration Units
- B. Effect of Temperature and Pressure on Solubility of Solute
- C. Colligative Properties

III. Chemical Kinetics
- A. The Rate of Reaction
- B. Rate Law
- C. Concentration and Time Equations
- D. Activation Energy and Temperature Dependence of Rate Constants
- E. Reaction Mechanisms and Catalysis

IV. Chemical Equilibrium
- A. Equilibrium Constant
- B. Factors that Affect the Equilibrium Constant

V. Acids and Bases
- A. Bronsted Acids and Bases
- B. pH Calculations
- C. Calculations of Weak Acid Ionization Constants
- D. Calculations of Weak Base Ionization Constants
- E. Conjugate Acids and Bases
- F. Diprotic and Polyprotic Acids
- G. Molecular Structure and the Strength of Acids
- H. Acid-Base Properties of Salts, Oxides and Hydroxides
- I. Lewis Acids and Bases

VI. Acid

IX. Nuclear Chemistry
- A. Nuclear Reactions
- B. Nuclear Stability
- C. Natural Radioactivity
- D. Nuclear Transmutation
- E. Nuclear Fission and Fusion
- F. Uses of Isotopes and Biological Effects of Radiation

SEQUENCE OF EXPERIMENTS:
1. Synthesis of Aspirin
2. Distillation of Salt Water
3. Colligative Properties: Freezing Point Depression
4. Chemical Kinetics: Rate of Decomposition of Hydrogen Peroxide
5.

. *It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.*