Print Date: 7/17/14

Course Objectives/Course Outline
Spokane Community College

Course Title: **General Chemistry with Lab II**
Prefix and Course Number: **CHEM& 162**

Course Learning Outcomes:
By the end of this course, a student should be able to:

- Explain chemistry principles
- Understand Gas Laws, Kinetic Molecular theory and thermochemistry
- Understand Quantum Theory and electronic structure and periodicity of the elements
- Understand Chemical bonding and molecular Geometry
- Explain chemistry principles
- Solve problems
- Recognize chemical principles and facts
- Perform laboratory experiments

Course Outline:

I. Chemistry Principles and pertinent facts related to:
   A. Gas laws and kinetic molecular theory
   B. Thermochemistry
   C. Quantum theory and electronic structure
   D. Periodicity of the elements
   E. Chemical bonding
   F. Molecular geometry

II. Chemistry principles and pertinent facts related to:
   A. Solids and liquids
   B. Solution properties
   C. Chemical kinetics
   D. Chemical equilibrium
   E. Acids and bases
   F. Solubility equilbria
   G. Thermodynamics
   H. Electrochemistry
   I. Nuclear chemistry
   J. Coordination chemistry
   K. Enviornmental chemistry
   L. Organic chemistry
   M. Biochemistry
   N. Modern materials
   O. Other chemistry topics of interest

III. Solving problems by using chemical principles and facts

IV. Recognizing how chemical principles and facts apply to related areas of study

V. Performing laboratory experiments using:
   A. Chemical concepts
   B. Recording observations
   C. Gathering and analyzing data
   D. Presenting results in written form