J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: CHM 102       Credits: 4

Course Title: Introductory Chemistry II

Course Description: Emphasizes experimental and theoretical aspects of inorganic, organic, and biological chemistry. Discusses general chemistry concepts as they apply to issues within our society and environment. Designed for the non-science major. Part II of II. Prerequisite: CHM 101. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

General Course Purpose:
Provide the non-science major with a laboratory science. Credits earned from this course do not satisfy the requirements of a laboratory science course in the AS degree in Science.

Course Prerequisites and Co-requisites:
Prerequisite: CHM 101

Student Learning Outcomes:
Upon completing the course, the student will be able to
a. Apply the basic concepts of chemistry to explain the interaction of different forms of matter;
b. Identify organic/biochemical families;
c. Carry out and interpret basic experiments related to these concepts; and
d. Explain clearly and concisely the methods and reasoning used to accomplish the above objectives.

Major Topics to Be Included:
 a. Nuclear chemistry
 b. Alkanes
 c. Alkenes and alkynes
 d. Benzene and its derivatives
 e. Alcohols, ethers, and thiols
 f. Chirality
 g. Amines
 h. Aldehydes and ketones
 i. Carboxylic acids
 j. Anhydrides, esters, and amides
 k. Carbohydrate, lipids, proteins, and enzymes

Date Created/Updated (Month, Day, and Year): January 4, 2019