CHM 111: General College Chemistry

This course in fundamentals of modern chemistry is for students not planning to major in science. Topics include the metric system, exponential notation, atomic structure, and the periodic table, the writing and use of chemical equations, stoichiometry of compounds and chemical reactions, the mole, chemical reactivity, properties of chemical bonds, solutions, and acids and bases. The laboratory component provides applications of concepts covered in lecture. Prerequisites: C or better in high school science or CHM 090 and a C or better in high school algebra both within the last five years. Students who have not completed Algebra II in high school should complete the Intermediate Algebra Competency. Three lecture hours and three laboratory hours per week. Instructional Support Fee applies. Gen. Ed. Competencies Met: Scientific Reasoning and Discovery.

Course Student Learning Outcomes

1. Use the dimensional analysis method to make unit conversions in addition to making a scientific measurement.
2. Demonstrate knowledge of the basic concepts about matter such as classification of matter, properties and changes of matter.
3. Describe the structure of atoms and explain the relationship between the electronic structure of atoms and chemical periodicity.
4. Classify, name, and write formulas of binary ionic, molecular compounds, and ions.
5. Solve stoichiometric problems using balanced chemical equations.
6. Calculate the mass percent and molarity of solutions given the necessary information.

Credits: 4
Program: Chemistry