PCHE 112/CHM 113 : Chemistry II

This course is designed to give students a solid foundation in basic chemistry as a preparation for undergraduate studies. Students will learn the stoichiometry of chemical equations and to carry out calculations using balanced equations. They will apply kinetic theory to gases to explain their properties. Students will learn about the gas laws both theoretically and experimentally and use these laws to carry out calculations. They will learn about the flow of energy in chemical reactions and how energy is quantified experimentally. The properties of acids and bases will be studied along with measurement and calculation of pH. The fundamental principles governing buffer action will be learned. Oxidation and reduction will be defined and reactions involving these processes will be carried out and their balanced equations deduced. The sources, properties and major uses of hydrocarbons will be emphasized. Students will learn to classify organic molecules according to functional groups. They will study basic reactions of selected functional groups. The importance of polymerization and polymers will be emphasized.
Credits 3
Prerequisites
None