

Master Syllabus

CHE 1121 - Introduction to Chemistry II

Division: Science, Mathematics and Engineering

Department: Chemistry

Credit Hour Total: 4.0

Lecture Hrs: 3.0 **Lab Hrs:** 3.0

Prerequisite(s): CHE 1111

Date Revised: December 2014

Course Description:

The second half of an introductory survey course for students pursuing health science degrees or biotechnology. Topics include organic functional groups, biomolecules, enzymes, body fluids and the metabolism of carbohydrates, proteins and lipids. Three classroom, three lab hours per week.

General Education Outcomes:

- Critical Thinking/Problem Solving Competency

Course Outcomes:

Metabolic Reactions of Biomolecules

Demonstrate an understanding of the catabolism and anabolism of carbohydrates, amino acids, proteins and lipids.

Assessment Method: Locally developed exams

Performance Criteria: 70% of quiz/exam questions answered correctly

Structures and Properties of Biomolecules

Demonstrate an understanding of the properties and chemical behaviors of the different classes of carbohydrates, amino acids, proteins and lipids.

Assessment Method: Locally developed exams

Performance Criteria: 70% of quiz/exam questions answered correctly

Enzymes

Demonstrate an understanding of organic chemistry and the structures, mechanisms of action and catalytic effect of enzymes on chemical reactions.

Assessment Method: Locally developed exams

Performance Criteria: 70% of quiz/exam questions answered correctly

Body Fluids

Demonstrate an understanding of the reactions that regulate blood pH and other factors, the bicarbonate blood buffer and other buffering systems.

Assessment Method: Locally developed exams

Performance Criteria: 70% of quiz/exam questions answered correctly

Outline:

Organic chemistry Enzymes Carbohydrates Carbohydrate Metabolism Lipids Lipid Metabolism Amino Acids and Proteins Amino Acid/Protein Metabolism Body Fluids