

## 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

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#### 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