A. COURSE DESCRIPTION

Credits: 4
Lecture Hours/Week: 0
Lab Hours/Week: 0
OJT Hours/Week: *
Prerequisites: None
Corequisites: None

MnTC Goals: Goal 03 - Natural Science

A continuation of the survey begun in chemistry 1111 covering basic concepts of organic, and biochemistry. The laboratory component introduces techniques, methods, and instrumentation. Prerequisite: CHEM 1111 or CHEM 2211. [Core Curriculum Goal Area 3 (LC)]

B. COURSE EFFECTIVE DATES: 09/03/2002 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Survey of organic chemistry including the basic functional groups and their reactions.
2. A descriptive introduction to the major classes of biochemical compounds.

D. LEARNING OUTCOMES (General)

1. demonstrate their knowledge of organic nomenclature and properties these molecules.
2. predict products of common organic reactions and propose the reagents necessary for such transformations.
3. model the structures of biochemistry molecules like carbohydrates, lipids, proteins, DNA and RNA.
4. apply concepts from lecture in the laboratory setting while maintaining skills associated with scientific calculations.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 03 - Natural Science

1. Demonstrate understanding of scientific theories.
2. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
3. Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted