A. Course Description

Credits: 4

Prerequisites: BIOL 111 General Biology I AND MATH 115 College Algebra
OR BIOL 111 General Biology I AND MATH 120 Precalculus

Lab Hours/ Weeks: Corequisites: None

Lecture Hours/ Week :

MnTC Goals: Goal 03 - Natural Science

The second semester of the comprehensive first year course in biology. Covers the evolution and diversity of life, plant biology, animal biology and ecology. Lab activities include use of the microscope, examination of organisms, and experiments in plant physiology and ecology; may include animal dissection. Intended for biology and life sciences teaching majors.

B. Course Effective Dates: 08/16/2017 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Communicate their experiential findings, analyses, and interpretations both orally and in writing.
2. Demonstrate knowledge and understanding of scientific facts and theories in biology.
3. Demonstrate quantitative reasoning skills and competency with arithmetic, algebra, and statistics at a level appropriate for second semester science majors.
4. Explain and apply knowledge of plant biology, animal biology, ecology and evolution.
5. Formulate and test hypotheses by performing laboratory experiments in biology, including the collection of data, statistical and graphical analysis of results, and an interpretation of its sources of error and uncertainty.
6. Recall, explain and apply the concepts, knowledge and vocabulary of biology at the level necessary for success in upper division course for biology majors.
7. Understand and apply knowledge of use of the microscope and other biological equipment, and use that knowledge in the proper conduct and interpretation of laboratory and field investigations.

E. Learning Outcomes (MN Transfer Curriculum)

Goal 03 - Natural Science

1. 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.
2. Demonstrate understanding of scientific theories.
3. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
4. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.
G. Special Information

Note: First day attendance required except by instructor permission.