A. Course Description

Credits: 4

Prerequisites: CHEM 105 Survey of General, Organic, and Biochemistry
OR
CHEM 111 General Chemistry I

Lab Hours/ Weeks: Corequisites: None

Lecture Hours/ Week:

MnTC Goals: Goal 03 - Natural Science

The study of microorganisms covering the basic principles of growth, metabolism, and genetics; the relationships between microbes and humans in health care; microbes that cause disease and their control; pathogenicity, epidemiology, and immunology; and related topics such as microscopy, aseptic technique, and diagnostic testing. Intended for students in nursing and other allied health sciences; does not count towards Biology major requirements; is not a general education science course. Formerly HBIO 205.

B. Course Effective Dates: 05/08/2019 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Recognize and describe the basic groups of microorganisms with an emphasis on bacteria and their relation to human health.
2. Understand and use scientific terminology related to microorganisms.
3. Describe and explain the specific and non-specific mechanisms of host defenses.
4. Describe and explain the epidemiology of human microbial infection.
5. Perform techniques used to culture, identify and control microorganisms.

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.