

Bemidji State University

BIOL 2750: Medical Microbiology

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Introduction to pathogenic microorganisms, the interaction of pathogens and the immune system, transmission of infections, and methods of controlling infections. The laboratory portion of the class covers aseptic technique, pure culture techniques, microscopy, and diagnostic microbiology. This course is intended primarily for Nursing majors. Prerequisites: (BIOL 1110 or BIOL 1111 or BIOL 1400) and (CHEM 1110 or CHEM 1111 or CHEM 2211)

B. COURSE EFFECTIVE DATES: 05/06/2018 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Bacteria
2. Bacterial Diseases
3. Bacterial Genetics
4. Concepts of Microbial Disease
5. Control of Microbial Diseases
6. Current Challenges: Biological Weapons, Current Plagues
7. Epidemiology and Cycle of Microbial Disease
8. Partnerships in the Control of Microbial Diseases
9. Protozoan Diseases/Fungal Diseases
10. The Beneficial Aspects of Microbes: The Other Side of the Coin
11. The Immune Response
12. The Microbial World
13. Viral Diseases
14. Viruses

D. LEARNING OUTCOMES (General)

1. examine microbial mechanisms, cycles, stages, and transmission of disease
2. compare and contrast the major microbial pathogens in humans
3. develop basic clinical lab skills, including basic microscopy, staining and identification of microbial cells, and sterile technique.
4. practice clinical standard operating procedures, including lab safety, preparation and handling of specimens and the importance of standards and controls.
5. identify and explain the major cellular, metabolic, and genetic characteristics of microscopic organisms
6. evaluate methods of disease prevention, including the immune system, antimicrobial chemotherapy, vaccination, and sanitation

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted