

BIO 208 - MICROBIOLOGY

Course Description

This course reviews the two types of cells (prokaryotic and eukaryotic). Microbial anatomy, physiology, and diversity are introduced. Microbiological disease pathology and the role of microbes in food production are also discussed. This class includes an oral presentation on a disease caused by microbes, a diversity smorgasbord, a group project on a group of microbes, and a write-up on how microbes are used in food. Laboratory work culminates with the identification of an unknown bacterial solution. Group 1 lab course. Quantitative Reasoning.

Credit Hours

4

Contact Hours

6

Lecture Hours

3

Corequisites

BIO 208L

General Education Outcomes supported by this course

Quantitative Reasoning

Course Learning Outcomes

Knowledge:

- Describe the following core concepts: Evolution in organisms, Structure and function, Information flow-exchange and storage, Pathways and transformation of energy and matter, Living systems.

Application:

- Apply the process of science in relation to the interaction of microorganisms, plants, animals and the environment.

Integration:

- Use principles of several natural science disciplines to integrate basic cell physiological processes and mathematical modeling related to growth and decay.

Human Dimension:

- Explain the importance of microorganisms in both human health and disease.
- Explain the importance of microorganisms in ecological health and disease.
- Collaborate with peers and the instructor to help each other learn.

Caring - Civic Learning:

- Develop a curiosity about the natural world and their responsibility in using sustainable resources.

Learning How to Learn:

- Research academic and popular resources to make reasoned conclusions.
- Interpret articles from relevant scientific literature.