

BIOLOGY 346 – *Microbes and Society*

Calendar Description

This is an introductory course in microbiology designed for non-science majors who wish to explore the vast universe of microbes and their roles in life on earth. The main focus of the course is to discuss the historical development of scientific discoveries which have led to our current understanding of microbial life and made the field of microbiology what it is today. Basic concepts and principles will be explored with an emphasis on bacteria, viruses, protozoa and their interactions with humans. Not for credit in life sciences.

Course structure

The class will meet on Mondays and Wednesdays from 4:00 pm – 5:30 pm. Class meeting times will consist of lectures, in-class group discussions and lab work. Readings will be assigned to prepare for in-class discussions.

Since all life is dependent on microbes the discipline of Microbiology covers a wide range of topics. BIOL 346 will focus on selected topics which illustrate the importance and impact of microbes on our lives and environment.

Course Outline

1. What are microbes? Cell theory/structure.
2. Bacterial metabolism and growth.
3. Epidemiology and disease transmission.
4. Human/microbe relationships – historical perspective.
5. Introduction to genetics.
6. Introduction to virology.
7. Human/microbe relationships – health, disease and normal flora.
8. Introduction to the immune system.
9. Bacterial diseases.
10. Viral diseases.
11. Prevention and control of infections.
12. Human/microbe relationships – foods and products.
13. Diversity of habitat, sustainability and ecological relationships.