

Revised by Marshall Griffin
December 4, 2002

WEST VIRGINIA UNIVERSITY AT PARKERSBURG
UNIFORM COURSE SYLLABUS

Name of Course: Microbiology Course No. Biology 200

Department: Biology Division: Natural Science/Mathematics

I. Course Objectives:

At the completion of the lecture component of the Microbiology course, the student will be able to:

1. Recognize important historical events in microbiology.
2. Explain the germ theory of disease.
3. Compare the basic cell structure of procaryotic and eucaryotic cells.
4. Explain basic concepts of bacterial nutrition and growth.
5. Explain the classification schemes applied to procaryotic and eucaryotic organisms.
6. Describe methods of control of bacterial populations and infections.
7. Recognize the normal microbial flora of the body.
8. Apply biological relationships to specific states of health and disease.
9. Describe nonspecific host defense mechanisms.
10. Explain basic principles of immunology.
11. Characterize immunologic disorders.
12. Describe microbial disease processes involving the skin and eye.
13. Describe microbial disease processes involving the central nervous system.
14. Describe microbial disease processes involving the cardiovascular and lymphatic systems.
15. Describe microbial disease processes involving the respiratory system.
16. Describe microbial disease processes involving the digestive system.
17. Describe microbial disease processes involving the urinary system and genital system.
18. Give oral and written presentations to the class.

II. Topics to be Studied:

How will course objectives be met?

Topics included are the history of microbiology; types of microorganisms including microbial classification; microbial growth and metabolism; control of microbial populations including methods and applications of sterilization and disinfection; principles of infection and immunity including mechanisms of pathogenicity (host-parasite relationships); microbial diseases of the major organ systems; classes of drugs used for the treatments of infectious diseases; hypersensitivity and autoimmunity; and immunodeficiencies.

- III. Special Projects to be Included in Course:
Research papers Reports
Surveys Annotated bibliographies
Other

Group Project - Students work in a small group to prepare an assigned three-dimensional model of a cell or particle. The models are exhibited and presented to the class.

Infectious Disease Reports - Each student is assigned a series of infectious disease reports. The assigned topics are presented in class as an oral presentation accompanied by a written copy of the report.

- IV. Methods of Student Evaluation:
Tests (how many? how often? what type?)
Quizzes
Oral Presentations
Written Papers
Laboratory Activities
Clinical Experiences

An undetermined number of short, unannounced Quizzes may be given at any time during any lecture session. In addition, there will be a total of four announced, written Examinations including the comprehensive final examination at the end of the semester. Each examination will consist of multiple choice, matching, short essay items, and analysis (critical thinking) problems. The level of items will include recall, application, and analysis. The Quiz scores and Examination scores will together account for 65% of the final course grade. Scores from the Group Project as well as the Infectious Disease Reports will count 10% of the final course grade. The remaining 25% of the final course grade will consist of the laboratory average (described separately in the Biology 200L syllabus).

- V. Assessment of Outcomes:
What measurements will be used to demonstrate that outcomes have been reached? (Refers to class as a whole, not individual students.)

Students will be asked to complete a course and instructor evaluation form at the end of the semester.

- VI. Other Information:
What additional information will help to clarify the course?

Prerequisites: Biology 107 and 108 (Anatomy and Physiology) or Biology 101, 102, 103, and 104 (General Biology), or consent of the instructor.
The course is offered in the Fall/Spring/Summer terms on the Parkersburg campus only.

Biology 200 is a four-semester hour credit course. During the fall or spring semester, the course lecture component meets for two and one-half hours per week, and the course laboratory component meets for one, one hour and fifty-five minute session per week. During an eight-week summer session, five hours of lecture are offered per week along with four hours of laboratory instruction.