Midland College
Syllabus
2008-09
BIOL 2421
Microbiology
4 Semester Credit Hours
(3 Lecture/4 Lab)

Course Description: This course is designed to enable students to become familiar with the following topics: the general nature of microorganisms, their methods of transfer, parasitism, infections, body defense mechanisms, and the prevention and control of infections caused by microorganisms.

Text, References, and Supplies:

Course Goals/Objectives:
Upon completion of this course the student will:
1. Have a fundamental understanding of the general nature of microorganisms.
2. Have a fundamental understanding of the methods of microbial transfer, parasitism, and infection.
3. Have a fundamental understanding of body defense mechanisms against microbial infection.
4. Have a fundamental understanding of the prevention and control of infections caused by microorganisms.

Student Contributions and Class Policies:
Lecture: Students will be expected to comply with the policies outlined in the Midland College student handbook. Instructor policies concerning attendance and academic behavior are consistent with the policies in the student handbook. Students will be evaluated based on the results of examinations given throughout the semester. Your lecture instructor will inform you on the first day of class as to the tentative dates and content for each exam. Students are expected to complete each exam. Your instructor will inform you on the first day of class as to make-up procedures for missed exams and any exemption procedures (See Instructor Handout).

Lab: Students will be expected to comply with the policies outlined in the Midland College student handbook. Instructor policies concerning attendance and academic behavior are consistent with the policies in the student handbook. Additional safety policies will be explained during each laboratory. Students will be evaluated based on the results of examinations given throughout the semester. Your lab instructor will inform you on the first day of class as to the tentative dates and content for each exam. Students are expected to complete each
exam. Your instructor will inform you on the first day of class as to make-up procedures for missed exams and any exemption procedures. (See Instructor Handout). Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject.

**Evaluation of Students:**

Lecture Average.................................................................70%
Laboratory Average...........................................................30%

**Course Schedule:**

This class meets for 3 lecture hours per week and 4 laboratory hours per week. For a tentative schedule of the class meeting and laboratory meetings please refer to the schedule distributed to each student on the first class meeting (See Instructor Handout).

**Intellectual Competencies:**

1. Reading - Understanding the material incorporated in the text used in this course will require the student to analyze and interpret various biological concepts.

2. Listening - The primary teaching methods used in this course are discussion and lecture. Understanding the oral presentation of material will require the student to analyze and interpret various biological concepts.

3. Critical Thinking - Critical thinking, as exemplified by problem solving, is inherent in the study of any scientific discipline. Biological problems will be considered, discussed, and analyzed in this course.

**ADA Statement:**

Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact the instructor as soon as possible. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations.

**Exemplary Objectives:**

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Competencies:

1. To understand and apply method and appropriate technology to the study of the natural sciences.

2. To recognize scientific and quantitative methods and the differences between these approaches and the other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.

3. To identify and recognize the differences among competing scientific theories.
4. To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.

5. To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

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