

INSTRUCTOR'S SYLLABUS  
Biology 417 / 5417  
Medical Microbiology  
4 credit hours (lecture and laboratory)  
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Text: Medical Microbiology, Murray et al, 7<sup>th</sup> ed.  
Lab Manual: Medical Microbiology, J. Graves, Ph.D.

Course Description: A study of the medically important bacteria, viruses, fungi, and parasites, with emphasis on clinical applications.

Course Rationale: This course is intended to provide specialized knowledge of medical microbiology and to produce students able to advance in the various fields of medical sciences, particularly medical and dental school.

Course Topics:

History of microbiology.  
Microbial structure and metabolism.  
Basic immunology.  
Vaccines.  
Antimicrobials and disinfectants.  
Culture/media types and uses.  
Aseptic techniques.  
Lab diagnosis of common pathogens.

Academic Integrity: Mississippi College students are expected to be scrupulously honest. Dishonesty, such as cheating or plagiarism, or furnishing false information, including forgery, alteration, or misuse of University documents, records, or identification will be regarded as a serious offense subject to severe penalty, including, but not limited to loss of credit and possible dismissal. Since space is limited, students during exams are expected to adhere to MC's honor system.

Learning Objectives:

Students will learn pertinent facts concerning the role of microorganism in disease.  
Students will learn to analyze case studies of various patient presentations and determine the likely pathogens involved.  
Students will understand and be able to perform various lab techniques necessary to diagnose various common infectious agents.

Methods of Instruction: This course consists of approximately 3 hours of lecture and four hours of laboratory each week. Lectures are formal presentations of topic materials, with additional subject matter in the form of overheads, handouts, review sheets, and videotapes. Students are presented ample opportunities for questions, discussions, and topic reviews. Laboratory sessions are designed and presented as diagnostic problems involving actual hands-on manipulation of common organisms of low to moderate pathogenicity, or attenuated strains or simulants of microbes of high pathogenic potential.

Additional Requirements: Each student taking the course for graduate credit will be required to complete additional requirements as determined by the instructor.

Required Practices: Students will be expected to read applicable chapters of the texts, take notes on the material provided in lecture, and actively participate in lab exercises.

Assessment of Learning: Individual students' progress will be evaluated by a series of one-hour exams (typically three or four) and a course final. Each test will include both lecture and lab components. The exams and final all count equally, and their average will make up 90% of the final grade. Attendance and any quizzes and turn-in sheets each class period will be averaged and make up the other 10% of the final grade. There are no provisions for extra credit. The grading system for undergraduates is A 90-100, B 80-89.9, C 70-79.9, D 60-69.9, F below 60. Grading for graduate students will follow the "plus" system as in the graduate catalog – 87-89.9=B+, 77-79.9=C+.

Other Course Information: Attendance (consult policy in current General Bulletin) is extremely important to mastery of subject matter, and missed classes or labs (excused or unexcused) are directly related to lower test performance. Attendance is checked at all lecture and lab meetings. Makeup of missed exams requires sufficient (usually written) excuse, and makeup must be as soon as possible after the missed exam. Makeup of missed daily quizzes, turn-in sheets, and lab exercises are not possible and will receive "zero" grades. "Any student whose absences, whether excused or unexcused, exceeds 25% of class meetings will receive a grade of "F" in the course." General Bulletin.

Tutoring is available at no charge to the student. Contact the lab assistants or the Biology office.

If special accommodations due to learning, physical, psychological, or other disabilities are needed, contact the Director of Student Counseling, Mississippi College.

Students should refer to the current General Bulletin and class schedule for important information and dates, such as class beginning and ending dates, class location, holidays, class drop deadline, and final exam date. Note that for classes dropped after the first week, no tuition refund can be made.

Biology 417/5417 Fall, 2013 Tentative Lecture Schedule 11AM - MWF

W 8/28 first class  
History + Chap 1-8  
M 9/2 Holiday  
TEST 1 – 9/6 (F)  
Chap 9-13  
TEST 2 – 9/20 (F)  
Chap 14-28,39-40  
TEST 3 – 10/4 (F)  
M 10/7 fall break  
Chap 29-38, 41-47  
TEST 4 – 10/25 (F)  
Chap 48-67  
TEST 5 – 11/15 (F)  
Chap 68-87  
W-F 11/27-29 Thanksgiving holiday  
TEST 6 – 12/11 (W) OR 12/18 (W – 12-3 pm)

Tentative Lab Schedule Tuesday 12:30-2:55 OR Thursday 12:30-2:55

Aug 27/29 Intro/Safety  
9/3-5 Lab Techniques  
9/10-12 Stains/Microscopy  
9/17-19 Staph/Strep  
9/24-26 cont.  
10/1-3 Bacillus/Clostridium/Listeria  
10/8-10 NO LAB  
10/15-17 Urine Cult/ID/Suscept.  
10/22-24 M. tuberculosis  
10/29-31 Sal/Shigella/E. coli O157  
11/5-7 cont.  
11/112-14 Neisseria/Vibrio/Campy  
11/19-21 cont.  
11/26-28 No Lab  
12/3-5 HIV/Strep/Preg/Syph. – Tests  
12/10-1 NO LAB