

BIOLOGY 3713: MICROBIOLOGY

SYLLABUS

FALL, 2007

PROFESSOR: Dr. M. Neal Guentzel

CLASS: Rm. 2.03.12 SB, 3:30 - 4:45 pm, Monday, Wednesday

OFFICE HOURS: Rm. 2.03.24 BSB (Biosciences Building), 1:30 - 3:30 pm, Tuesday

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TEXTBOOK: Microbiology, A. Human Perspective (5th. Ed.) by Nester, E.W., et. al., 2007. McGraw-Hill, Boston, Mass.

COURSE OUTLINE

TOPICS	CHAPTERS
I. Introduction, History, and Scope of Microbiology	1
II. Types of Microbes, Prokaryotic and Eukaryotic Cells	1
III. Microscopy, Fine Structure/Function of Prokaryotes	3
Exam I	
IV. Nutrition, Cultivation, and Growth of Microbes	4
V. Microbial Metabolism [Review Chap. 2 for Background]	2,6
Exam II	
VI. Microbial Genetics	7,8
VII. Genetic Engineering/Biotechnology/Industrial Micro	9,31-32
VIII. Control (Physical/Chemical/Antimicrobials)	5,21
*[IX. Microbial Classification and Survey of Major Groups Bacteria, Fungi, Algae, Protozoa, and Viruses]	10-14
Exam III	
X. Microorganisms and Disease/Epidemiology	19-20
*[XI. Microbial Pathogens and Specific Diseases]	22-29
XII. Properties of the Host Which Determine Resistance to Microorganisms and Immunology	15-18
* These are areas that we will cover during the course of other topics. You should read and refer to these chapters as the course progresses.	

FINAL EXAM is Thursday December 7, 2007 at 1:30 pm - 4:00 pm.

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PREREQUISITES FOR COURSE:

BIO 2313-Genetics

GRADING:

1. Exam 1, Exam 2, Exam 3 = 60%.
2. The lowest of the 3 Exam grades is dropped, if all are taken.
3. Final Exam = 40%.

POLICY ON MAKE-UP EXAMS:

1. Normally, if a Exam is missed it will be the one dropped.
2. Make-up Exams are given only under extraordinary circumstances! Check with me beforehand!

EXAMINATION SCHEDULE:

1. Specific dates for Exams will be announced two weeks prior to the exam date.
2. Bring a ParSCORE Test Form "compatible with 48/TSM scanners" (green with 50 spaces each side) for each Exam and the Final Exam.

ATTENDANCE POLICY AND CLASSROOM BEHAVIOR:

1. Lecture outlines are provided for each topic area. However, they are **not complete!**
2. You are expected to attend each class and to review the background reading material from the text if you expect to do well in this course. **Failure to attend class will significantly reduce your Performance!!!**
3. Students are expected to assist in maintaining a classroom environment conducive to learning. Turn off cell phones and pagers.

SCHOLASTIC DISHONESTY:

1. Cheating will not be tolerated in any form.

NAMES OF MICROBES:

1. You will be given specific examples of important microorganisms (concentrating on pathogens) throughout the semester. Through repetition in class and your required reading, you will learn to know these organisms and hopefully will leave this class with a working knowledge of major "players" in the microbial world.
2. In general, you will not be tested on the specific examples until the Final Exam, unless I tell you differently.
3. You will be provided with review sheets of all the organisms discussed in this class before the Final Exam.

GOALS/OBJECTIVES OF THIS COURSE

1. This course will provide an overview of the important and exciting world of microbes and their activities.
2. Students will develop a general knowledge of major microbes to provide a foundation for advanced study in microbiology and related areas such as biotechnology and molecular biology.