

MBIO 3010 Bacteriology
Fall 2010 TR 12:30P – 1:45P, S137

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Course Description: A study of microorganisms, particularly bacteria, including an introduction to bacterial structure/function, genetics, metabolism, physiology, and evolution, and their role in the world.

Course objectives:

1. For students to gain factual knowledge of the basic principles and theories of microbiology, particularly bacteria.
 - a. Bacterial structures and their function
 - b. Bacterial genetics, cellular metabolism and physiology, immunology, and evolution.
2. To understand the role of bacteria in everyday life including medicine (health and welfare and in infectious diseases), environment and industry.

COURSE REQUIREMENTS

1. **Prerequisites:**

- a. One year of college-level biology (ZOOL 1050 and BOTY 1050, or BIOL 1150) or equivalent.
- b. CHEM 1100 and CHEM 1110 or equivalent.

2. **Required Text:** Microbiology: An Introduction by Tortora, Funke and Case, 10th Edition.

3. **ADD/DROP Policies:**

September 20th is the last day to add/drop the course. The add/drop policies for MBIO 3010 are the same as the university add/drop policies.

4. **Course Etiquette:**

- a. Arrive prepared and on time for class.
- b. Turn off all cell phones and pagers.
- c. Please do not carry on conversations with your neighbors once class has started. Such behavior is highly disrespectful and very distracting to me and to the other students around you.

5. **Grading Policies:**

- a. **Academic Dishonesty and Misconduct:** There is zero tolerance for cheating. Cheating in any capacity in this class will result in penalties ranging from a minimum of a zero on the assignment or exam to a maximum of expulsion from California State University, Stanislaus as indicated by the official University Policy regarding dishonesty and misconduct. Exams, reports, and/or other assignments are indicators of individual performance. Copying off

another student's exam, plagiarized reports, or other assignments constitutes cheating. If your phone rings during the exam, five (5) points will be deducted from your score. Taking out a cell phone during an exam is considered cheating, your exam will be confiscated, and you will receive a grade of F.

- b. **Class attendance is required**; missing more than 4 classes may result in being dropped from the course. You are responsible for any information or assignments you missed in your absence. I highly recommend reading the assigned chapters before coming to class.
- c. **Make-up exams given only under extenuating circumstances and only with documentation**
 - i. Make-up exams will be different and will consist only of short answers and essay questions. Failure to appear at exam time without 24 hours prior notice to instructor with an appropriate excuse, or an appropriately documented emergency, will result in zero points for that exam.
 - ii. You will not be allowed to go out of the room before you finish and turn in your exam.
 - iii. Questions that may appear on exams include multiple choice, matching, short answer, discussion, problem-solving and case study interpretation. You will need Scantron form # 882-E for the exams. Note that:
 - a. only answers on the scantron will be graded, so transfer answers carefully
 - b. take care to erase well those answers you do not want marked
 - c. illegible answers in written portion will not be graded.
- d. **Total points for course = 550**

3 exams (100 pts each)	300 pts
Two relevance reports (25 pts each)	50 pts
Comprehensive final exam	200 pts

Additional assignments may also be made throughout the term. The instructor reserves the right to give unannounced quizzes if it becomes apparent that students are not keeping up with the material, there are an unacceptable number of absences and/or if students show up late for class.

***Absolutely no late assignments will be accepted.**

- e. **Grading** will be based on a percent scale:
93-100 = A, 90-92 = A-, 87-89 = B+, 83-86 = B, 80-82 = B-, 77-79 = C+, 73-76 = C, 70-72 = C-, 67-69 = D+, 60-66 = D, < 60 = F
 - o **The instructor reserves the right to reduce your grade due to excessive absences and/or tardiness.**
 - o **Grades/scores will not be sent to students via email or telephone.**

6. **Lecture notes**, objectives, and/or Ppt lectures are in a private web. These materials **are copyrighted** and are only for the personal use of students enrolled in the course. **Do not** give the username/password to anyone not in the class. If you do so **no more** material will be provided.

The username is _____ the password is _____.

Tentative Lecture Schedule (open to revision)

Date	Related Reading		Subject
	Chapter		
Aug	24		Introduction
	26	1	The Microbial World and You
	31		The Microbial World and You (cont'd)
Sept	2	2	Chemical Principles
	7	3	Observing Microorganisms
	9	4	Prokaryotic and Eukaryotic Cells Relevance report #1 due!
	14	4	Prokaryotic and Eukaryotic Cells (cont'd)
	16	5	Microbial Metabolism
	21	6	Microbial Growth
	23	6	Microbial growth (cont'd)
	28		EXAM I Ch. 1-6 (100 points)
	30	7	Control of Microbial Growth
	Oct	5	8
7		8	Microbial genetics (cont'd)
12		9	Biotechnology and recombinant DNA
14		10	Classification of Microorganisms
19		11	Prokaryotes
21		12, 13	Eukaryotes, Viruses, Viroids and Prions
26			EXAM II Ch. 6-13 (100 points)
28		14	Diseases and Epidemiology
Nov	2	15	Mechanisms of Pathogenicity
	4	16	Nonspecific Host Defenses
	9	17	Specific Host Defenses Relevance report #2 due!
	11		Veteran's day
	16	18	Practical Applications of Immunology
	18	19	Disorders of the Immune System
	23	20	Antimicrobial Drugs
	25		Thanksgiving Holiday!
	30		EXAM III Ch. 14-19 (100 points)
Dec	2		Human diseases
	7		Human diseases
	9	27	Environmental and Applied Microbiology
	16		FINAL EXAM (200 points) 11:15A-1:15P

Note: The schedule in this course are tentative and subject to change in the event of extenuating circumstances.