

MBIO 3010 Bacteriology

TR 12:30P – 1:45P, N101, Spring 2015

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| Instructor | Choong-Min Kang, Ph.D. |
| Office/Telephone | N262 / (209) 667-3484 |
| Office hours | M 11:00A-12:00P, W 11:00A-12:00P, or by appointment |
| E-mail | ckang1@csustan.edu <input type="checkbox"/> Best method to contact instructor <input type="checkbox"/> Please include your name and the course number in the subject line. |
| Webpage | https://blackboard.csustan.edu/ (lecture notes, announcement, etc) |

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. Gain factual knowledge of the basic principles and theories of microbiology, particularly
 - a. Bacterial structures and their function
 - b. Bacterial genetics and evolution
 - c. Bacterial cellular metabolism and physiology
 - d. Microbial diseases and host immunity
2. Understand the role of microbes in everyday life including medicine (health and welfare and in infectious diseases), environment and industry.

Course Requirements

Prerequisites: One year of introductory college-level biology and chemistry series (ZOOL 1050 and BOTY 1050, or BIOL 1150 and CHEM 1110 or equivalent).

Required Text

"Microbiology, An Introduction" by Tortora, Funke and Case, 11th edition with Mastering.

ADD/DROP Policies

February 23 is the last day to add/drop the course. The add/drop policies for this class are the same as the university add/drop policies.

Course Etiquette

1. Arrive prepared and on time for class.
2. Turn off and put away all cell phones and pagers. No cell phone will be allowed out at any time. If they are taken out, they will be confiscated.
3. 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.

- Additional assignments may also be given throughout the semester. 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.

***No late assignments will be accepted.**

6. 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

NOTE:

- a. Take care of your grade. Remember you earn your grade; it is not given to you.
- b. The instructor reserves the right to reduce your grade due to excessive absences and/or tardiness.
- c. Grades/scores will not be sent to students via email or be given over the telephone.
- d. Instructor will not calculate student's scores or grade.

7. Course Page:

Information for the course (Lecture notes, syllabus, related materials including exam results, etc.) can be found on the course's Blackboard (<https://blackboard.csustan.edu/>). Lecture materials are copyrighted and are only for the personal use of students enrolled in the course. Do not give the username/password to anyone else. If you do so no more material will be provided.

Registration in Mastering (<http://session.MasteringMicrobiology.com>) will be covered in class during the first or second week by the representative from Pearson (**Course ID = MMBKANG19466**).

*Note: Laptops, cameras, or cell phones are allowed in class for the learning purpose only.

Class schedule

| Date | | Related Reading Chpater | Subjects |
|------|----|-------------------------|--|
| Jan | 27 | 1 | Introduction, 'The Microbial World' and 'You |
| | 29 | 1,2 | 'The Microbial World' and 'You, 'Chemical Principles |
| Feb | 3 | 2 | Chemical Principles |
| | 5 | 4 | Prokaryotic and Eukaryotic Cells, 1st Exam |
| | 10 | 4 | Prokaryotic and Eukaryotic Cells |
| | 12 | 4,5 | Prokaryotic and Eukaryotic Cells, 'Microbial Metabolism |
| | 17 | 5 | Microbial Metabolism |
| | 19 | 5 | Microbial Metabolism, 2nd Exam |
| | 24 | 6 | Microbial Growth |
| | 26 | 6 | Microbial Growth |
| Mar | 3 | 6,7 | Microbial Growth/Control of Microbial Growth |
| | 5 | 7 | Control of Microbial Growth, 3rd Exam |
| | 10 | 7 | Control of Microbial Growth |
| | 12 | 8 | Microbial Genetics |
| | 17 | 8 | Microbial Genetics |
| | 19 | 8 | Microbial Genetics 4th Exam |
| | 24 | 8,9 | Microbial Genetics/Biotechnology and recombinant DNA |
| | 26 | 9 | Biotechnology and recombinant DNA |
| Apr | 31 | 9,10 | Biotechnology and recombinant DNA/Classification of Microorganisms |
| | 2 | 10 | Classification of Microorganisms, 5th Exam |
| | 7 | | Spring break |
| | 9 | | Spring break |
| | 14 | 11 | Prokaryotes |
| | 16 | 11 | Prokaryotes |
| | 21 | 12 | Eukaryotes |
| | 23 | 13 | Viruses, 'Viroids' and 'Prions, 6th Exam |
| | 28 | 13 | Viruses, 'Viroids' and 'Prions |
| May | 30 | 14 | Diseases and Epidemiology |
| | 5 | 14 | Diseases and Epidemiology |
| | 7 | 15 | Mechanisms of Pathogenicity, 7th Exam |
| | 12 | 15 | Mechanisms of Pathogenicity |
| | 14 | 20 | Antimicrobial Drugs |
| | 21 | | Final Exam (11:15 A X 1:15 P) |