

**BIOL 250 – Microbiology for Health Sciences
Fall 2008**

Instructor: Jacob M. Hornby, Ph.D.

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Office hours: T 2:00-3:00, W 10:30-11:30; Additional hours by appointment (schedule subject to change)

Lecture:

MLH 320

MWF 9:00-10:20 am

Lab:

MLH 210

T 9:00-12:00 (section 01)

Th 9:00-12:00 (section 02)

Required text:

Microbiology: An Introduction (9th ed.) by Tortora, Funke, and Case.

Microbiology Laboratory Theory and Application (2nd ed.) by Leboffe and Pierce.

General information:

1. Attendance is required in both lecture and lab. If you must miss a lecture, you will be responsible for getting notes from another student. There will be absolutely **NO MAKE-UP LABS** for unexcused absences. Each lab is near or at its capacity, resulting in limited space in the lab. Necessary materials will be calculated for the known number of students in a lab. If you show up to a lab that you are not registered for, you will be asked to leave. If you know that you will be missing a lab for an unavoidable reason, you must let me know as far in advance as possible.
2. You will be allowed to drop your lowest two quizzes, therefore make-up quizzes will not be allowed. Make-up exams will be offered only under *extraordinary* situations. If a make-up exam is necessary, it will be different from the one given on the scheduled day and will consist entirely of essay questions. It is to your benefit to make these scheduled quiz and exam days a priority in your schedule.
3. If you feel there is any physical or mental challenge to you that impedes your ability to participate in the class, please let me know. If you have any special medical needs that I should be aware of in case the building had to be evacuated, please let me know. Assistance with accommodation also can be found at the Office of Student Life, Room 111, Reid Centennial Hall.
4. The last date to drop this class without a permanent entry on your transcript is **September 8**. The last date to withdraw from this course with a "W" on your transcript is **October 31**. After that date, withdrawal is permitted by petition only and approval of the division chair. The division chair requires documentation of extraordinary circumstances that prevented you from withdrawing by the deadline.
5. Please be on time to lecture and lab. If you carry a cell phone, please turn it off before class begins. If you receive phone calls during class, you may be asked to leave. During exams you will **NOT** be allowed to use any audio devices under any circumstance.

Methods of instruction and evaluation:

This course will primarily be taught in a lecture format with time provided for discussions and questions. I will begin classes with the opportunity for you to ask questions regarding the previous lecture. There will be **FOUR** exams including the final. Each will be worth the same amount of points. Each exam will contain a variable number of multiple choice, fill-in-the-blank, and short answer questions. The final will not be comprehensive, but each exam will contain around 5 questions over material from the previous exam. The material covered on the exams will cover what is discussed in lecture and a few pages I assign for reading. You are required to review chapter 2 on your own. I will not test over these concepts, but they are fundamental to your understanding of the material that will be covered in this course.

There will be a total of ten quizzes given at the beginning of the lectures indicated in the schedule below. These quizzes are not meant to be an undue stress, but to help keep material fresh in your mind between exams and help determine whether you understand the material completely. They will be short quizzes containing a few randomly selected questions.

This class will utilize Blackboard (<http://bbce.lcsc.edu>) to post grades as well as provide a mechanism for asking questions and posting discussions. As said, I will begin each class with an opportunity to ask questions about a previous lecture, but will spend only about 5 minutes on this task. Questions about your understanding of lecture material during lecture will be allowed, however certain lecture materials (particularly the Disease of the Day) tend to invoke a substantial amount of questions. I would like to strongly encourage you to ask me these questions and explore your curiosity, but outside of class time. These questions tend to confuse the rest of the class while they attempt to keep consistent notes for lecture quizzes and exams. I will encourage you to post these questions as discussions on Blackboard and I will check them on a weekly basis to answer them. I encourage other students to visit these discussion threads, as well (they tend to be the most interesting parts of the class ☺). I also will post links to Microbiology-related stories in the news...most of which you will find far more interesting than it might seem. I will explain this more during lecture.

A separate syllabus will be provided for the laboratory portion of BIOL 250.

Final grades:

Exams (4)	60%
Quizzes (8)	15%
Lab grade	25%

Final grades will be determined as follows:

A = 92-100%	C+ = 77-79.9%	F = below 60%
A- = 90-91.9%	C = 72-76.9%	
B+ = 87-89.9%	C- = 70-71.9%	
B = 82-86.9%	D+ = 67-69.9%	
B- = 80-81.9%	D = 60-66.9%	

Mid-term grades will be calculated based on all materials completed prior to October 24. This will include two lecture exams, five lecture quizzes (none will be dropped for midterm), six lab quizzes, and lab homework.

Tentative class schedule

Lecture Days	Topics	“Disease of Day”	Chapters
Aug. 25, 27, 29	Introduction Cellular Structure		1, 4 (review Ch.2 on your own)
Sept. 1	NO CLASSES – Labor Day		
3, 5	Cellular Structure		4
8, 10, 12	Microbial Growth and Diversity (quiz 1 – 9/8)	Germ theory of disease Tetanus	1, 6
15, 17, 19	Microbial Growth and Diversity Control of Microbial Growth (quiz 2 – 9/15)	Botulism, Meningitis, Prions	6, 7, 22
22, 24, 26	EXAM 1 – 9/22 Control of Microbial Growth Cell Wall	Syphilis, Chlamydia	4, 7, 20, 22, 26
29, Oct. 1, 3	Cell Wall and Cell Wall Active Antimicrobials (quiz 3 – 9/29)	Bubonic Plague, Rickettsias	4, 20, 26
6, 8, 10	Cell Membranes and Membrane Active Antimicrobials (quiz 4 – 10/6)	Lyme Disease, Dental Caries	4, 20, 23
13, 15, 17	Cell Membranes continued Microbial Genetics (quiz 5 – 10/13)	Gastric ulcers, Cholera	4, 8, 20, 25
20, 22, 24	EXAM 2 – 10/20 Microbial Genetics and Associated Antimicrobials	Typhoid Fever	8, 20, 25
27, 29, 31	Microbial Genetics continued Microbial Nutrition (quiz 6 – 10/27)	<i>E. coli</i> , food-borne illnesses	5, 8, 20, 25
Nov. 3, 5, 7	Metabolic inhibitors Virology (quiz 7 – 11/3)	Tuberculosis, MRSA	5, 13, 20, 24
10, 12, 14	Virology and Antivirals (quiz 8 – 11/10)	Influenza, Varicella-Zoster	13, 20, 21, 24
17, 19, 21	EXAM 3 – 11/17 Mycology and Antifungals	Polio, Rabies	12, 20, 22
24, 26, 28	NO CLASSES – Thanksgiving Break		
Dec. 1, 3, 5	Mycology continued Epidemiology (quiz 9 – 12/1)	Mycoses and Mycotoxins, Small Pox	12, 14, 20, 21
8, 10, 12	Epidemiology and Microbial Pathogenesis (quiz 10 – 12/8)	HPV, HIV	14, 15, 19
Dec. 17	FINAL EXAM – 9:00 AM		