

LECTURE SYLLABUS
Biology and Microbiology 233: Microbial Survey Spring 2011
MWF 11:30 am -12:30 pm
Clow 103

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Office Hours: Wednesday 1:50-3:30 and Thursdays 1:50-3:30.
Other times are available by appointment.
Available any time by email.

Required text: Microbiology [a human perspective] sixth edition by Eugene W. Nester, Denise G. Anderson, C. Evans Roberts, Jr. and Martha T. Nester. ISBN 978-0-07-299543-5.

BIO 233: This is a 4-credit class. It contains a 3-hour lecture component and a 2-hour laboratory component each week. You cannot pass this course if you do not attend and participate in the laboratory component of the class.

EMAIL COMMUNICATION and D2L will be used frequently throughout the semester to communicate between Instructors and Students. Emails constitute legal, official University communication. *The professor will ONLY respond to polite and detailed emails.* Important documents and web links for the laboratory or lecture portion of the course will be posted to D2L (lecture component on D2L) for your convenience. Not checking your email or reading the news item on the course D2L page is not an excuse for performance problems in the class. Contact Academic Computing for assistance with email and D2L.

Course Objectives: By the conclusion of this course, you should be able to:

1. Be able to explain the relationship between humans and microbial world.
2. Understand immense diversity exhibited among microorganisms (MOs) in terms of numerous types, metabolic processes, and various habitats that are inhabited by MOs.
3. Detail common structural and functional aspects of microorganisms important to their survival in a wide variety of habitats.
4. Explain how microorganisms grow and how unwanted growth can be controlled.
5. To understand the role of microbial genetics in how MOs grow, causes disease, transfer antibiotic resistance and can be used in the development of vaccines.
6. Explain how the human microbiome is important in keeping us healthy and what this means for future control of infectious disease.
7. Compare the abundance of pathogenic microorganisms to non-pathogenic microorganisms.
8. To gain an understanding of how the human body and various microorganisms interact in terms of health and disease (e.g. defense mechanisms, microbial pathogenicity).
9. To explain the importance of microorganisms in the environment to human health, while considering environmental changes on the spread of infectious disease.

Assessment:

1. There will be four (4) 100 point examinations. Each exam will be a multiple choice format. Questions will be taken from material presented in lecture. The final exam will NOT cumulative, however the material of this is class comprehensive and will successively build on each other, which will be reflected in the exams. **Missed exams may not be made up. If you miss an exam due to circumstances beyond your control, you may replace the missed exam by taking a comprehensive exam during the last week of the semester (Requires documentation: doctor's excuse, death notice, etc.).**

2. **D2L Quizzes:** There will be 5 on-line quizzes to help you learn the material from the class. The quizzes dates are marked on the syllabus. The on-line quizzes will only be open on D2L from after class until midnight. You will be limited to 15 minutes for taking the quiz. If you miss a quiz, you will not be able to retake it and will obtain a zero. So make sure that you put these dates in your planner, calendar, etc. ***You must take the quiz on your own, without the assistance of anyone or any materials.*** Any violation of this policy will result in disciplinary action as described in relevant University policies. Breaches of academic integrity can result in failing the course and expulsion from the University.

3. **In-class quizzes:** Pop quizzes and/or activities will occur throughout the semester. Some of these activities WILL be collected and scored. These **will not** be announced before hand, so come to class to make sure you obtain these in-class points. The instructor will pose question(s) to the entire class. Students will provide write their answers on paper provided by the professor.

Course Point Breakdown:

Assignments

	<u>Value (Points)</u>
Exams (4 @ 100 points each)	400
In-class quizzes	40
On-line quizzes (6 @ 10 pts each)	60
Lab (point breakdown described in lab portion of the syllabus)	445
Point Total	945

Letter Grade	%	Grade Points per Unit (cr.)
A	92.0-100	4.00
A-	90.0-91.9	3.67
B+	88-89.9	3.33
B	82.0-87.9	3.00
B-	80.0-81.9	2.67
C+	78.0-79.9	2.33
C	72.0-77.9	2.00
C-	70.0-71.9	1.67
D+	68.0-69.9	1.33
D	62.0-67.9	1.00
D-	60.0-61.9	0.67
F (Failure)	<60.0	0.00

Determination of Course Grade:
** The instructor reserves the right to curve grades. If a student does not do well on the first exam, but if there is **IMPROVEMENT ON EVERY** exam after the 1st one, participates in class, and this will be taken into consideration when final grades are calculated.

POLICIES

Attendance Policy: Due to the nature of the course, *it is imperative that students attend*. Information will be provided which relates to the content of the course and related assignments that will be critical to student performance on the course objectives. As described above, missed exams may not be made up. Instead, a comprehensive exam may be taken to replace the missed exam, which will be given the last week of the semester. If you miss a class period, ***it is your responsibility to obtain notes from a fellow student***. Punctuality is encouraged; if late arrival is unavoidable, the student should enter the class in a manner that creates as little disruption as possible.

Academic Integrity: Academic dishonesty in any form will not be tolerated. Cheating on an exam, plagiarizing, or any other form of academic dishonesty will be dealt with in accordance with the current UWO Student Discipline Code. ***Any violation of related to Student Code of Conduct will be dealt with on an individual basis according to the severity of the misconduct.*** Any questions please consult <http://www.uwosh.edu/dean/conduct.htm>

Special Needs and Accommodations: Students needing special accommodations or special services should inform the Instructor by providing a copy of their Accommodation Recommendation (AR) at the beginning of the course and **at least one week** before the exam. Please inform your lab instructor separately.

Study Effectively and Intelligently: Don't wait to study until the night before an exam! Allow for enough time to adequately review the material and apply the concepts from the course. Focus your studying to **understand the concepts** rather than simply memorizing everything. This type of studying will not only help you succeed in this course, but will help you when you are reviewing for nursing boards. **The greatest hurdle for any student in a microbiology course is the new vocabulary/names of microbes that must be learned.** Repetition remains one of the more effective means of memorizing and understanding information, but it is important that you remember two key points. First, start studying early in the semester and study regularly. If you review continually, then you will retain more information and improve your understanding allowing you succeed in lecture and lab. Second, ask for help if there is topic or skill that you are struggling to understand. Remember the key steps of **repeated review** and **short study intervals**. Focus your efforts on reviewing the lecture points, key figures, and critical thinking questions. Ask questions during lecture if something is unclear. Come to office hours and exam review sessions to maximize your learning.

Behavior in Lecture: Class sizes for BIO 233 are quite large, and in order for everyone to hear the instructor and be able to ask questions (and hear the answers) there are some rules that must be followed.

1. All pagers, ipods, pdas, cell phones, iPADS and other bluetooth devices must be turned off or be silenced. Please remove ear buds. This makes a more positive learning atmosphere for the other students.
2. Please do not talk while the instructor is speaking. Voices in large lecture rooms tend to carry great distances and can drown out the voice of the instructor. Those who sit in the back of the lecture room often have a particularly difficult time hearing the instructor. As a courtesy to your fellow classmates, please do not talk during the lecture.
3. Do not leave early. *Leaving early is rude, creates noise that prevents others from hearing the instructor, and you may miss important information.*

Tentative Lecture Schedule

Instructor Reserves the right to change order of topics. Speed of the class maybe faster or slower than listed below depending on questions from the class.

EXAM dates WILL NOT CHANGE!

Week	Class Dates	Topic (s)	Relevant Readings
1	Jan 31 Feb 2/4	INTRODUCTION TO MIRCROBIOLOGY HUMANS & MICROBIAL WORLD MOLECULES OF LIFE	CH 1 CH 2
2	Feb 7/9/11	MICROSCOPY PROKARYOTIC CELLS D2L QUIZ	CH 3
3	Feb 14/16/18	PROKARYOTIC CELLS STRUCTURE, GROWTH & CONTROL D2L QUIZ	CH 3 & CH 4 & CH 5
4	Feb 21/23/25	EXAM 1 --FEBRUARY 21st METABOLISM & PHYSIOLOGY	CH 6
5	Feb 28 Mar 2/4	GENETICS CLASSIFICATION & DIVERSITY D2L QUIZ	CH 8 CH 10
6	March 7/9/11	MICROBIAL ECOLOGY D2L QUIZ	CH 11 Supplemental Material
7	March 14/16/18	HUMAN MICROBIOME EXAM 2-- MARCH 18th	CH 30 Supplemental Material
Spring Break March 20 th -27 th			
8	March 28/30 April 1	HUMAN MICROBIOME HOST/MICROBE INTERACTIONS	Supplemental Material CH 17
9	April 4/6/8	IMMUNE RESPONSE D2L QUIZ	CH 15-16
10	April 11/13/15	VIRUSES & PRIONS ANTIMICROBIALS D2L QUIZ	CH 14 CH 21
11	April 18/20/22	EXAM 3-- APRIL 18th EPIDEMIOLOGY	CH 20
12	April 25/27/29	PATHOGENICITY INFECTIOUS DISEASE D2L QUIZ	CH 22, CH 23, CH 24, CH 25
13	May 2/4/6	INFECTIOUS DISEASE D2L QUIZ	
14	May 9/11/13	INFECTIOUS DISEASE EXAM 4 --MAY 13th	

Tentative review sessions for each exam: Feb 19th, March 16th, April 14th, and May 11th. Time and location are to be determined. These dates can be changed based on class vote.