

BSC 302

Principles of Microbiology

Fall 2015

Instructor: Dr. Jennifer Mosher
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Classroom: Science 374
Office Hours: MW 10–12 PM; T 10–12 PM

Time: MWF 9:00 - 9:50 AM

Required Text Microbiology, 3rd ed.; Slonczewski and Foster; Norton

Course Description: Principles of Microbiology - Basic microbiological techniques, fundamental principles of microbial action, physiological processes, immunology, disease process. (3 credit hours; PR: BSC 121 with grade of C or better or equivalent).

Course Student Learning Outcomes	How students will practice each outcome in this Course	How student achievement of each outcome will be assessed in this Course
Students will have gained an understanding of the basic principles related to Microbiology including: <ul style="list-style-type: none">• Diversity of microorganisms and their basic characteristics.• Metabolic processes and nutritional needs of microorganisms.• Molecular and cellular features of different members of the microbial world.• Non-specific and specific mechanisms of host defenses against microorganisms and the epidemiology of disease.• The diverse roles and impact of microorganisms on other living things.	Read assigned text. Answer study questions in text. Attend class and pay attention. Study lecture notes, including Powerpoints. Complete weekly homework assignments	Four exams Weekly homework assignments

****Official University Policies** – By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802

Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

IMPORTANT POLICIES**Grading and Course Requirements:**

Letter Grades will be assigned based on what percent of the total points are earned.

A = 90% or more of the total points; **B** = 80 – 89.9% of the total points; **C** = 70 – 79.9% of the total points; **D** = 60 – 69.9% of the total points; **F** = 59.9% or less of the total points

Points are earned as follows:

400 pts -Exams 1 – 4. Each worth 100 pts (final is not cumulative).

100 pts -Homework assignments. Each worth 10pts (there will be more than 10 assignments, the scores will accumulate up to 100pts. You may not receive more than 100 pts. No extra credit.

Attendance. Attendance at all scheduled lectures and exams is expected. Lectures are only given once. If you miss class, please obtain notes/information from a classmate. **If you must miss an exam for any reason**, it is your responsibility to contact the instructor **prior** to the exam period. Note that **Makeup Exams** must be taken within **10 days of the exam**. It is your responsibility to notify the instructor that you have to take a make-up exam. Make-up exams may be given in multiple choice, essay, or short-answer format at the discretion of the professor. **Written excuses for legitimate absences must be obtained. If an exam is missed without a university-approved excuse, a grade of 0 will be assigned for that exam.**

Conduct in class: Please behave respectfully during class. Behaviors such as excessive chatting with other students, note passing, texting, websurfing, etc., are disruptive to the instructor and to other students. Students habitually engaged in these activities may be asked to leave the class that day. If you need to text, e-mail, or surf the web during class, please **DO NOT COME** to class. These activities are potentially disruptive to other students who are trying to learn. Please turn off (silence) your cell phones, pagers, etc. No electronic devices will be needed, and none will be permitted, during exams. The use or access of an electronic device during an exam will be considered evidence of academic dishonesty.

Office Hours – Feel free to drop by at any time during posted office hours, however people who call ahead for an appointment will be given priority. ***An appointment is required outside of posted office hours.***

Responsibility. This is a core course in the Biology curriculum. It is time to start critically examining the information that you encounter, and incorporating it into the context of your knowledge base. It requires effort on your part. More importantly, it requires that you take full responsibility for your learning experience. The amount that you get out of this course will depend upon the amount of work you are willing to put into it.

Blackboard - Powerpoint Outlines or notes **MAY** be made available on Blackboard. These outlines are provided by the instructor as a courtesy to the students. The instructor reserves the right to change, delete, update or otherwise modify these files at any time. There is **no guarantee** that outlines will be posted. These outlines are not intended to substitute for taking your own notes in class. They are not guaranteed to be comprehensive. There may be information given during lectures that is not in the PowerPoints. These outlines are not a substitute for regular class attendance. Generally, students who rely solely on the PowerPoint notes do not do as well on the tests as students who take their own notes or use a combination of their own notes and the posted PowerPoints. **ANNOUNCEMENTS will be posted on Blackboard and sent to Marshall emails. You are expected to check regularly so as not to miss any important course-related information.**

Approximate Schedule and Material to be Covered – The following is an ***estimated*** class schedule of topics to be covered and accompanying textbook chapters. Specific lecture topics covered may vary. Listed chapters and the order in which they are covered is subject to change at any time. It is not the intention to cover every chapter in its entirety. It is recommended that students read all chapters listed as well as any other posted or referenced materials. Lectures will highlight specific sections of each chapter. You will be tested in detail on material covered in lecture and more generally on the other sections of chapters listed. Additional material not contained in the textbook may be given during lectures. **The best strategy is to read the chapters indicated, attend lectures and take notes.**

MTG #	Day	DATE	TOPIC	
1	8/24/2015	M	Syllabus/Introduction	
2	8/26/2015	W	What is Microbiology	Chapters 1, 2
3	8/28/2015	F	Homework 1 due 5pm	
	8/31/2015	M	Cell Structure/Function and Growth of Microbes	Chapters 3, 4, 5
4	9/2/2015	W		
5	9/4/2015	F	NO CLASS- PROF OUT OF TOWN	Homework 2 due 5pm
6	9/7/2015	M	Labor Day – NO CLASS	
7	9/9/2015	W		
8	9/11/2015	F	Homework 3 due 5pm	
9	9/14/2015	M		
10	9/16/2015	W	Exam 1	Exam 1
11	9/18/2015	F	Homework 4 due 5pm	
12	9/21/2015	M	Energetics and Catabolism	Chapter 13
13	9/23/2015	W	Electron Flow	Chapter 14
14	9/25/2015	F	Homework 5 due 5pm	
15	9/28/2015	M		
16	9/30/2015	W	Biosynthesis	Chapter15
17	10/2/2015	F	Homework 6 due 5pm	
18	10/5/2015	M		
19	10/7/2015	W	Industrial and Food Micro	Chapter 16
20	10/9/2015	F	Homework 7 due 5pm	
21	10/12/2015	M		
22	10/14/2015	W	Exam 2	Exam 2
23	10/16/2015	F	Homework 8 due 5pm	
24	10/19/2015	M	Bacterial origins	Chapter 17
25	10/21/2015	W	Bacterial Diversity	Chapter 18
26	10/23/2015	F	Homework 9 due 5pm	
27	10/26/2015	M	Archaea Diversity	Chapter 19
28	10/28/2015	W		
29	10/30/2015	F	Homework 10 due 5pm	
30	11/2/2015	M	Viruses	Chapters 6, 11
31	11/4/2015	W	Exam 3	Exam 3
32	11/6/2015	F	Homework 11 due 5pm	
33	11/9/2015	M	Human Microbiota	Chapter 23
34	11/11/2015	W	Microbial Pathogenesis	Chapter 25
35	11/13/2015	F	Homework 12 due 5pm	
36	11/16/2015	M	Microbial Diseases	Chapter 26
37	11/18/2015	W		
38	11/20/2015	F	Homework 13 due 5pm	
	11/23/2015	M	Fall Break/Thanksgiving	No Class
	11/25/2015	W	Fall Break/Thanksgiving	No Class
	11/27/2015	F	Fall Break/Thanksgiving	No Class
39	11/30/2015	M	Antibiotics	Chapter 27
40	12/2/2015	W	Clinical Micro/Epidemiology	Chapter 28
41	12/4/2015	F		
	12/11/2015	F	Exam 4 – Final Exam	8:00-10:00am