BSC 302 Principles of Microbiology Spring 2016

Instructor: Dr. Jennifer Mosher Office: WAEC 2221

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Classroom: Science 374 Office Hours: M 10–11 AM; 1–2PM

**Time:** MWF 9:00-9:50 am TW 10-noon

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

Clicker: Turning Technologies Response Card NXT (LCD) Required! Takes 2 AAA batteries—carry spares!

Penalties for not having clicker: a score of zero on a quiz, 10% penalty on an exam.

**Course Description:** <u>Principles of Microbiology</u> - Basic microbiological techniques, fundamental principles of microbial action, physiological processes, microscopy, disease process and genetics. (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
<ul> <li>Students will have gained an understanding of the basic principles related to Microbiology including:         <ul> <li>Diversity of microorganisms and their basic characteristics.</li> <li>Metabolic processes and nutritional needs of microorganisms.</li> <li>Molecular and cellular features of different members of the microbial world.</li> <li>Non-specific and specific mechanisms of host defenses against microorganisms and the epidemiology of disease.</li> <li>The diverse roles and impact of microorganisms on other living things.</li> </ul> </li> </ul>	Read assigned text.  Answer study questions in text.  Attend class and pay attention.  Study lecture notes, including Powerpoints.  Complete weekly assignments	Four exams Weekly assignments In class quizzes

<sup>\*\*</sup>Official University Policies – By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to <a href="www.marshall.edu/academic-affairs">www.marshall.edu/academic-affairs</a> and clicking on "Marshall University Policies." Or, you can access the policies directly by going to <a href="http://www.marshall.edu/academic-affairs/?page">http://www.marshall.edu/academic-affairs/?page</a> 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

#### **Grades as follows:**

80% -Exams 1 - 4. Each worth 100 pts (20% each of total grade)

**10%**- **Weekly assignments and** to be completed through blackboard each worth 10 points (10% of total grade). There will be 50 points from homework, I will give 7 assignments and you will be able to accumulate up to 50 points.

**10%-in-class quizzes** these will be clicker quizzes in class. You may accumulate up to 50 points for these quizzes (I will give approximately 70 points worth of quizzes during semester). There are no makeup quizzes.

**Weekly assignments** will be announced in class and through Blackboard. You will have 5 days to complete them and must be completed by the due date. No late submissions will be accepted. You may use your notes and textbook.

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 <u>prior</u> to the exam period. Note that <u>Makeup Exams</u> must be scheduled within 10 days of missed <u>exam</u>. 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. <u>Written excuses for legitimate absences must be obtained</u>. If an exam is missed without a university-approved excuse, a grade of 0 will be assigned for that exam.

**Exam Review Sessions:** These occur every MWF 9-9:50 AM. I frequently review material from previous lectures before moving on to new material. Lecture quizzes also serve as great review. **I strongly recommend you attend lecture** 

**Computer requirements:** I use MUOnline (<a href="http://www.marshall.edu/muonline">http://www.marshall.edu/muonline</a>) to distribute slides from my lectures, course announcements, supplementary materials, and study aids. Course materials are also located on the Connect Plus website.

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 <u>during posted office hours</u>, 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 <u>estimated</u> class schedule of topics to be covered and accompanying textbook chapters. Specific lecture topics covered may vary. <u>Listed chapters and the order in which they are covered is subject to change at any time.</u> 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.

### **Academic Dishonesty**

I adhere to the Academic Policy of Marshall University posted online at: <a href="http://www.marshall.edu/academic-affairs/policies/#AcademicDishonesty">http://www.marshall.edu/academic-affairs/policies/#AcademicDishonesty</a>

All written assignments, laboratories reports, quizzes, and exams are to be independent efforts of each student. You are responsible for knowing and adhering to the Academic Dishonesty Policy, which can be found in the student handbook or at these web addresses: <a href="http://www.marshall.edu/academic-affairs/policies/#AcademicDishonesty">http://www.marshall.edu/academic-affairs/policies/#AcademicDishonesty</a> An additional policy specific to plagiarism is available at: <a href="http://www.marshall.edu/library/plagiarism/plagiarism.asp">http://www.marshall.edu/library/plagiarism/plagiarism.asp</a>

I will not tolerate cheating. Students caught cheating will receive a score of zero on that assignment as well as have a "Notice of an Act of Academic Dishonesty" reported to the Office of Academic Affairs. Further action may be imposed by the department chair, academic dean or the Office of Academic Affairs.

## **University Policies** (all the "fine print")

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**Students with disabilities**: I am happy to make accommodations for documented physical, learning and psychological disabilities (see University Policies above). No accommodation can be allowed until documentation is received, and it must be received several days in advance of the exams to allow me time to arrange the conditions required. For more information, please visit <a href="http://www.marshall.edu/disabled">http://www.marshall.edu/disabled</a> or contact Disabled Student Services Office at Prichard Hall 117, phone 304-696-2271.

Мтс#	Date	Day	Торіс	
1	1/11/2016	М	Syllabus/Introduction	
2	1/13/2016	W	What is Microbiology Chap. 1	
3	1/15/2016	F	Microscopy Chap. 2	
	1/18/2016	M	MLK Day - NO CLASS	
4	1/20/2016	W		
5	1/22/2016	F	Cell Structure/Function Ch. 3	
6	1/25/2016	М		
7	1/27/2016	W	Growth of Microbes Ch. 4	
8	1/29/2016	F		
9	2/1/2016	М	Env Influences Ch. 5	
10	2/3/2016	W		
11	2/5/2016	F		
12	2/8/2016	M	Exam 1	Exam 1
13	2/10/2016	W	Microbial Origins Ch. 17	
14	2/12/2016	F		
15	2/15/2016	М	Bacterial Diversity Ch 18	
16	2/17/2016	W	Archaeal Diversity Ch 19	
17	2/19/2016	F		
18	2/22/2016	М	Viruses Chap 6	
19	2/24/2016	W		
20	2/26/2016	F	Viruses Chap 11	
21	2/29/2016	М		
22	3/2/2016	W	Exam 2	Exam 2
23	3/4/2016	F	Energetics and Catabolism Ch. 13	
24	3/7/2016	М		
25	3/9/2016	W	Electron Flow Ch. 14	
26	3/11/2016	F		
	3/14/2016	М	Biosynthesis Ch. 15	
27	3/16/2016	W		
28	3/18/2016	F		Last day to Drop
29	3/21-25/2016		Spring Break	No Classes
30	3/28/2016	М	Pathogenesis Ch. 25	
31	3/30/2016	W		
	4/1/2016	F	Microbial Diseases Ch. 26	
32	4/4/2016	M	Exam 3	Exam 3
33	4/6/2016	W	Antibiotics Ch. 27	
34	4/8/2016	F		
35	4/11/2016	М	Clinical Micro Ch. 28	
36	4/13/2016	W		
37	4/15/2016	F		
38	4/18/2016	М	Infectious Diseases Ch. 26	
39	4/20/2016	W		
40	4/22/2016	F	Microbial Genetics Ch. 7, 8, 9, 10	
	4/25/2016	M	No Class	No Class
41	4/27/2016	W	Microbial Genetics Ch. 7, 8, 9, 10	
42	4/29/2016	F		
	5/6/2016	F	Exam 4	9:00-9:50 am