

## BSC 250 – Microbiology and Human Disease

Summer Semester 2018

5 – 7:20 Monday/Wednesday

Hurricane High School

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**Instructor:** Seth Perry

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**Office/Hours:** After class or by appointment

### 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](http://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](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

### Course Description:

Introduction to microbiology with emphasis on the role of microorganisms in the disease process.

### Course Objectives:

1. Students will understand the methods and applications of biological science.
2. Students will be able to apply biological science in the laboratory setting.
3. Students will gain knowledge of the microbiological relationship to the human body.
4. Students will understand the structure and behaviors of prokaryotic organisms.
5. Students will describe the immune response in relation to infectious diseases.

### Required Texts, Additional Reading, and Other Materials

**Lecture:** *Nester's Microbiology: A Human Perspective*, 8<sup>th</sup> Edition. Denise Anderson, Sarah Salm, Deborah Allen, Eugene Nester. ISBN: 9780073522593

### Course Evaluation:

Assignments	Points
4 Lectures Exams	~400
12 Labs	~300
Total	~700

### Grading Scale:

A: 90 – 100
B: 80 – 89.9
C: 70 – 79.9
D: 60 – 69.9
F: 0 – 59.9

### Attendance Policy

**University Excused Absences:** These are addressed by the instructor or the Dean of Student affairs as described in each item. Appropriate documentation is required for each absence. The Dean of Student Affairs will notify course instructors of his or her actions using the University email system. **University-sponsored activities. Medical circumstances. Death or critical illness of an immediate family member. Other official activities – Military, Jury Duty, Religious Holidays. Extreme personal emergencies - examples of such events include house fires, serious crimes, etc.**

**Class Responsibility:**

- If you are going to be late, send an e-mail and let me know. That way I can expect you later.
- Attendance is important. Due to the fact that some materials are perishable, some labs cannot be made up. Try your best to make it on lab days. **Any Unexcused Absences** on lab days will result in a 0 for that lab.
- During bad weather or closures of Hurricane High School, there will be no class that evening. I will e-mail you when I get that information.
- I will remind you of upcoming tests and end of the unit dates but it is your responsibility to write down and remember these dates.
- If you miss an exam you will need to have an approved **MU Excused Absence**. You have 2 days to make it up on your own time at the TVRC office in Teays Valley.
- There is no extra credit. There are no retakes on exams.

**Course Schedule**

This schedule is tentative and subject.

Week	Monday	Topic	Wednesday	Topic
1	5/14	Humans and Microbial World Molecules of Life <b>Lab #1</b>	5/16	Microscopy and Cell Structure Dynamics of Microbial Growth <b>Lab #2 / Grow Lab #4</b>
2	5/21	Control of Microbial Growth Metabolism <b>Lab #3*</b>	5/23	The Blueprint of Life, From DNA to Protein <b>Lab #4</b>
3	5/28	Memorial Day – No Class	5/30	<b>Exam 1</b> <b>Grow Lab #5</b>
4	6/4	Bacterial Genetics Biotechnology, and Recombinant DNA <b>Lab #5</b>	6/6	Identifying and Classifying Micro Diversity of Bacteria and Archaea <b>Grow Lab #6</b>
5	6/11	Eukaryotes of The Microbial World Viruses, Viroids, Prions <b>Lab #6</b>	6/13	<b>Exam 2</b> <b>Grow Lab #8</b>
6	6/18	Innate Immune Responses Adaptive Immune Responses <b>Lab #7</b>	6/20	Host Microbe Interactions Immunologic Disorders <b>Lab #8 / Grow Lab #9</b>
7	6/25	Applications of Immune Response Epidemiology <b>Lab #9</b>	6/27	Antimicrobial Medications <b>Lab #10*</b>
8	7/2	<b>Exam 3</b> <b>Grow Lab #11</b>	7/4	Independence Day – No Class
9	7/9	Respiratory Infections Skin Infections <b>Lab #11</b>	7/11	Wound Infections Digestive Infections
10	7/16	Blood and Lymphatic Infections Nervous System Infection	7/18	Genitourinary Infections Microbial Ecology <b>Grow Lab #12</b>
11	7/23	Environmental Microbiology Food Microbiology <b>Lab #12</b>	7/25	<b>Exam 4</b>
12	7/30		8/1	

\*Take Home Lab