**BSC 250 – Microbiology and Human Disease**

Fall Semester 2018

5 – 7:20 Monday/Wednesday

Hurricane High School

**Instructor:** Seth Perry

**Office:** Room 221

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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 be 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>

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:**

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| 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.
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**Required Texts, Additional Reading, and Other Materials**

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| **Lecture**: *Nester’s Microbiology: A Human Perspective*, 8th Edition. Denise Anderson, Sarah Salm, Deborah Allen, Eugene Nester. ISBN: 9780073522593 |

**Course Evaluation: Grading Scale:**

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

A: 90 – 100

B: 80 – 89.9

C: 70 – 79.9

D: 60 – 69.9

F: 0 – 59.9

**Attendance Policy**

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| **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.
* Labs not turned in before the Exam date will not be accepted and will result in a 0 for those labs.
* 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 to change depending on weather and school system situations.

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| **Week** | **Monday** | **Topic** | **Wednesday** | **Topic** |
| 1 | 8/20 | Humans and Microbial World / Lab #1 | 8/22 | Molecules of Life  |
| 2 | 8/27 | Microscopy and Cell Structure / Lab #2 | 8/29 | Dynamics and Control of Microbial Growth / Lab #3 |
| 3 | 9/3 | No Class – Labor Day | 9/5 | Metabolism / The Blueprint of Life Grow Lab #4 |
| 4 | 9/10 | **Exam 1** | 9/12 | Lab #4 / Grow Lab #5 |
| 5 | 9/17 | Bacterial Genetics / Biotechnology and Recombinant DNA | 9/19 | Lab #5 / Grow Lab #6 |
| 6 | 9/24 | Identifying and Classifying Microorganisms / The Diversity of Bacteria and Archaea | 9/26 | Lab #6 |
| 7 | 10/1 | The Eukaryotic Members of The Microbial World / Viruses, Viroids, Prions | 10/3 | Lab #7  |
| 8 | 10/8 | **Exam 2** | 10/10 | Innate and Adaptive Immune Responses / Grow Lab #8  |
| 9 | 10/15 | Host Microbe Interactions / Immunologic Disorders | 10/17 | Lab #8 / Grow Lab #9  |
| 10 | 10/22 | No Class – HHS PTC | 10/24 | Applications of Immune Response / Epidemiology / Lab #9 |
| 11 | 10/29 | Antimicrobial Medications / Lab #10 | 10/31 | **Exam 3** / Grow Lab #11 |
| 12 | 11/5 | Respiratory / Skin Infections  | 11/7 | Wound / Digestive Infections Lab #11 |
| 13 | 11/12 | No Class – Veteran’s Day | 11/14 | Blood & Lymphatic / Nervous Infections Grow Lab #12 |
| 14 | 11/19 - 21 | Thanksgiving Holiday – No School |
| 15 | 11/26 | Genitourinary Tract Infections / Microbial Ecology | 11/28 | Environmental Microbiology / Food Microbiology |
| 16 | 12/3-5 | Dead Week / Make Up Snow Days |
| 17 | 12/10 | **Exam 4** | 12/12 | **Exam 4** |