**Biology 309 (5 cr.)**

**Lecture Location: Halsey 208**

**Monday, Wednesday, and Friday: 1:50 – 2:50 PM**

**Instructor:** Dr. Eric Matson

**Office:**  253 Halsey Science Center

**E-mail:**  matsone@uwosh.edu

**Office Hours: Mon., Wed., and Fri., 3:00 – 4:00 PM.**

**Required Text:** “Microbiology” 10th ed. by Prescott *et al.* with Connect access.

***You have a couple of options here:***

1. **The works:** Hard copy of 10th edition bundled with Connect access runs about $250
2. **eBook:** Electronic copy of 10th edition bundled with Connect access runs about $100

*Option 2 works well if you’re comfortable not having a physical copy of the text (but you can’t sell it again). You are free to find a used copy of the 9th edition if you want a physical copy of the text. McGraw-Hill also will sell an unbound copy of the 10th edition as a far cheaper option than the hard-cover version.*

**Laboratory:** 171 Halsey Science Center

**Laboratory Instructor:** Eric Matson

**Purpose:**

To introduce students to a variety of fundamental concepts and applications in bacteriology and to provide a foundation for the future study of microbiology.

**Requirements:**

There is no formal attendance policy. You must have an acceptable and prearranged excuse for missing class on examination days or you will **not** be able to make-up missed exams.

In general, class lectures will follow the textbook and the schedule of lectures. It should be noted that while the book will serve as a framework for lectures, there will be quite a bit of material presented in class that is not found in the text. You will be responsible for such material on exams. Thus, if you miss lecture you should obtain notes from a classmate.

**Course Grading:**

**The lecture portion of the course is worth approximately 59% of your grade. The laboratory accounts for the remaining approximately 41%.** The final grades will be based upon total points earned from the following:

**a) Exams** - There will be **three** lecture exams (100 points each). Exams will be of multiple choice and short-answer format. In addition, homework assignments will constitute additional points (125 points total). There will also be one writing project (75 points). *Information about this project will be provided in a separate document*. **Thus, there will be 500 points possible for the lecture portion of the course.**

**b) Laboratory** – A final exam in the form of a lab practical exam (100 points), 3 laboratory reports (150 points total) and lab questions or assignments (100 points) make up the total points in the laboratory portion of the course. **Thus, there will be 350 points possible for the laboratory portion of the course.**

*Course Grades will be determined using the following scale (final grades may be “curved” depending on final class average using lab and lecture grades):*

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| --- | --- |
| 92.5 - 100% = A | 72.5-77.4% = C |
| 90.0-92.4% = A- | 70.0-72.4%= C- |
| 87.5-89.9% = B+ | 67.5-69.9%=D+ |
| 82.5-87.4% = B | 62.5-67.4% = D |
| 80.0-82.4% = B- | 60.0-62.4% = D- |
| 77.5-79.9% = C+ | <60% = F |

***NOTE:*** *If you miss an ‘unexcused’ lab session, you will NOT be able to hand in lab questions or assignments for that lab. If you must miss a lab, please discuss it with your lab instructor.*

***Lecture Changes***

Any changes to the course will be posted to the class D2L site or a class e-mail will be sent out using the D2L class roster.

**You MUST check your e-mail regularly. Handouts, lab modifications, and additional materials will be placed on D2L.**

**Academic Dishonesty**

If you are caught cheating or engage in other forms of academic dishonesty, you will forfeit any points on that assignment and be subject to the Student Academic Disciplinary

Procedures as outlined in the Student Disciplinary Code (https://www.uwosh.edu/deanofstudents/university-policies-procedures/documents/ChapterUWS14.pdf).

Cheating includes, but is not limited to:

• Copying directly from sources and claiming the information as your own

 (plagiarism)

• Making up information or giving false information

• Giving answers to someone or allowing them to copy your work

• Possessing a copy of an examination that you should not possess

• Turning in work that was completed by someone else

• Using notes or other information during an examination

• Copying from another student with or without their consent

• False excuses to receive due date extensions

**Tentative Lecture Schedule**

***The schedule of topics may change depending on the pace of the course and class interest. Exam dates are firm! Please note that there will not be time to cover all topics for which you will be responsible. My aim is to bring clarity to aspects of the text. You will struggle with exams if you do not read and understand the assigned chapters in the book.***

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| --- | --- |
| **January** | **Topics covered** |
| Week of Jan. 30 | Introduction to the course and its organization |
|  | Chapter 1: Evolution of Microorganisms and Microbiology |
|  |  |
| **February** | **Topics covered** |
| Week of Feb. 6 | Chapter 2: Microscopy |
|  | Chapter 3: Bacterial Cell StructureChapter 4: Archaeal Cell Structure |
|  |  |
| Week of Feb. 13 | Chapter 7: Microbial Growth |
|  |  |
| Week of Feb. 20 | Chapter 8: Control of Microorganisms in the Environment |
|  | Chapter 9: Antimicrobial chemotherapy |
|  |  |
| Week of Feb. 27 | Chapter 9: Antimicrobial chemotherapy |
|  | Brief review  |
| **Friday, March. 3** | **Exam 1 (100 points)** |
|  |  |
| **March** | **Topics covered** |
| Week of Mar. 6 | Chapter 10: Introduction to Metabolism |
|  | Chapter 11: Catabolism |
|  |  |
| Week of Mar. 13 | Chapter 11: Catabolism |
|  | Chapter 12: Anabolism |
|  |  |
| **Week of Mar. 20** | ***Spring Break!*** |
|  |  |
| Week of Mar. 27 | Chapter 12: Anabolism |
|  | *Brief review of metabolism/lecture overflow* |
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| **April** | **Topics covered** |
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| **Monday, Apr. 3** | **Exam 2 (100 points)** |
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| Week of Apr. 3 | Chapter 13: Bacterial Genome Replication and Expression |
|  |  |
| Week of Apr. 10 | Chapter 14: Regulation of Bacterial Cellular Processes |
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| Week of Apr. 17 | Chapter 16: Mechanisms of Genetic Variation |
|  |  |
| Week of Apr. 24 | Chapter 19: Microbial Taxonomy and the Evolution of Diversity |
|  |  |
| **May** | **Topics covered** |
|  |  |
| Week of May 1 | Chapter 35: Pathogenicity and Infection |
|  |  |
| Week of May 8 | Chapter 39: Human Diseases Caused by Bacteria |
|  |  |
| **Wednesday, May 10** | **Exam 3 (100 points)** |
|  |  |
| **Friday, May 12** | **Careers in Microbiology (5 bonus points)** |
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