

## Microbiology 2060- Tooele Campus Fall 2016

**Instructor:** Dr. Crystal Black

**Email:** Use Canvas

**Textbook:** Microbiology: An Introduction 11<sup>th</sup> Edition by Tortora, Funke & Case

**ISBN:** 978-0-321-73360-3

**Final Grade Breakdown:** 20% Laboratory, 60% Examinations, 5% Introductory quiz & 15% Final Project

- You will receive the same grade for both the lecture and laboratory sections of the course
- Grades **WILL NOT** be curved

**Examinations:** There will be five tests during the course of the semester: one introductory quiz and 4 regular exams. Makeup exams will only be considered under **extreme** circumstances, including but not limited to: extreme illness (please provide a doctor's note), family tragedy, etc., and will be taken in the testing center. Exams (not including the introductory quiz which is in class only) will be taken in the testing center. **You are required to make your own appointment in the testing center at least 24 hours in advance.**

-Exams will be comprised of a combination of multiple choice, matching and short/long answer. Answers should be clear and legible.

-Exams will cover the lectures indicated on the schedule. Any information contained in the suggested reading but not covered in class **will not** be on the exams.

-Study questions will be provided with each lecture to guide your test preparation. The laboratory section prior to the exam will be used as a review for the test. The instructor will not lecture during reviews but simply answer questions from the class. Come prepared! Review sessions are optional.

-Exams will be placed in the testing center a day before the scheduled lecture if you prefer to take it early. For example, if the test is scheduled for a Tuesday, the test will be in the testing center all day Monday and Tuesday. If you elect to take the exam early, **DO NOT** discuss the exam with fellow classmates who have not yet taken the test.

**Final Project:** Each student will give a brief oral presentation to the class actively utilizing information from both the lecture and the lab. More details will follow in the second half of the semester.

**Instructor note:** I want every student to be successful! However, each student must do their part. I will be happy to clarify any points or problems during the lecture. If you have extra questions or need help you may also email questions to me or set up a time to discuss a problem. I think you will also find that there is often extra time during the laboratory hour to discuss issues or clarify the material. Do not email me the day of or late the night before the exam asking me to go over the material. **I highly recommend keeping up with the material on a consistent basis rather than cramming.** I promise to make examinations fair and straight-forward. The exams are rigorous and if you are not thoroughly prepared, you will not be successful.

Students are required to attend lectures and laboratories. Please get any missed material from your fellow classmates. All of the lecture slides and study questions will be made readily available on

Canvas. **You are required to take supplementary notes** as not everything I say will be written on the slides.

Please be courteous. Phones should be silenced and not used during lecture or laboratory. If you must speak to a fellow classmate please do so in the hallway. Do not do anything to distract other students who are trying to pay attention to the lecture.

Students will be notified of any changes to the lecture or laboratory schedule in a timely manner.

**Extra Credit: I do not give individual students extra credit assignments.** Extra credit projects consume precious study time and usually do more harm than good. Remember that your exam scores only comprise 60% of your grade. If you are struggling please come see me and I will help you with the material!

**Academic Dishonesty:** The Instructor of this course will take appropriate actions in response to Academic Dishonesty, as defined the University's Student Code:

Acts of academic dishonesty include but are not limited to:

- **Cheating**: (1) using or attempting to use or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity, including working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done "individually"; (2) depending on the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work; (4) acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission; (5) continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity; (6) submitting substantially the same work for credit in more than one class, except with prior approval of the instructor; or (7) engaging in any form of research fraud.
- **Falsification**: altering or fabricating any information or citation in an academic exercise or activity.
- **Plagiarism**: representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes using materials prepared by another person or by an agency engaged in the sale of term papers or other academic materials.

Full text of the Student Code available at available at available at <http://www.usu.edu/studentservices/pdf/StudentCode.pdf>:

**Students with disabilities:** Students with physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, 797-2444, 797-0740 TTY, or toll free at 1-800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print or digital) are available with advance notice.

## Laboratory Information

Laboratories should not run overtime, but will often take less than the allotted hour. That is the nature of bio labs. Usually you will start your bacteria growth on Tuesday and then analyze your results the following Thursday.

You will have to work in small groups to accomplish many laboratory tasks, particularly when microscopes are required. While you may collaborate with your group on assignments, they will be handed in individually and should not be copied word for word from your partners. It is important that you know how to accomplish and understand each lab.

## Laboratory Rules

**\* These rules are very important! They are there for your protection and to help you be successful in your experiments. Failure to comply may result in disciplinary action depending on the severity of the violation.**

1. Always wash hands and clean bench with disinfectant when entering lab. Do not go reaching in and out of your bag when you have gloves on. Disinfect your bench, take out your lab materials, then wash your hands and put on your gloves.
2. Wear proper laboratory attire. These include close-toed shoes (no high-heels), long pants and long hair pulled back. If you do not have proper attire you will not be allowed to participate in lab that day. There will be time in between class and lab to change clothes if you require.
3. Do not put items on the bench that do not need to be there. These include backpacks, cell phones, etc.
4. **NO FOOD OR DRINK ARE ALLOWED IN THE LABORATORY.** These include snacks, water bottles, gum, mints, or anything that goes in your mouth! Chewing on anything in lab can contaminate samples and increase the risk of bringing bacteria home with you. While the strains of bacteria we use are not especially dangerous, it is better safe than sorry!!
5. If you have any personal items that you think might be contaminated with bacteria let the instructor know and we will take care of it.
6. Do not eat or drink or play with any chemicals in the lab. For example, the ethanol has been formulated to make you sick if you drink it.
7. No horseplay in the lab. Work smart and carefully. Rushing the lab to leave early can lead to bad results. Act responsibly and listen to instructions.
8. Be considerate and share supplies. You will have to share microscopes and materials with others. Do not hog supplies and be patient with your classmates.
9. Fully clean and disinfect your workspace and wash your hands before leaving the lab.
10. If you don't know... ask! Have fun, and enjoy!

| Semester Schedule |         |  |                                      |
|-------------------|---------|--|--------------------------------------|
| Date              | Lecture | Topic  | Laboratory Assignment                |
| 8/30/2016         | A       | Syllabus Review & History of Microbiology            | Laboratory Rules Review              |
| 9/1/2016          | B       | Chemical Principles                                  | None                                 |
| 9/6/2016          | C       | Microscopy   | Using a Light Microscope             |
| 9/8/2016          | D       | Basic Anatomy of Microorganisms                      | Using a Light Microscope cont.       |
| 9/13/2016         |         | <b>Introductory Quiz 5% of Final Grade: In Class</b> | Streak Plating                       |
| 9/15/2016         | E       | Microbial Metabolism                                 | Streak Plating cont.                 |
| 9/20/2016         | F       | Microbial Growth                                     | Differential Agars                   |
| 9/22/2016         | G       | Microbial Genetics & PCR                             | Differential Agars                   |
| 9/27/2016         | H       | Microbial Classification                             | Biochemistry Exercise/Enterotubes    |
| 9/29/2016         | I       | Viruses, Viroids & Prions                            | Review Exam 1                        |
| 10/4/2016         |         | <b>Exam 1: No Class</b>                              | Antimicrobial Testing                |
| 10/6/2016         | J       | Intro to Host/Microbe Interactions and Pathogenesis  | Antimicrobial Testing                |
| 10/11/2016        | K       | Immunity   | Biochemistry of Bacteria/Litmus Milk |
| 10/13/2016        | L       | Immunity (2)   | Biochemistry of Bacteria/Litmus Milk |
| 10/18/2016        | M       | Diseases of the Skin and Eyes                        | Review for Exam 2                    |
| 10/20/2016        |         | <b>Fall Break: No Class – Attend Friday Schedule</b> | None                                 |
| 10/25/2016        |         | <b>Exam 2: No Class</b>                              | None                                 |
| 10/27/2016        | N       | Diseases of the Nervous System                       | Gram Staining                        |
| 11/1/2016         | O       | Diseases of Cardiovascular and Lymphatic Systems     | None                                 |
| 11/3/2016         | P       | Diseases of the Respiratory System                   | Review for Exam 3                    |
| 11/8/2016         |         | <b>Exam 3: No Class</b>                              | None                                 |
| 11/10/2016        | Q       | Influenza  | Intro to Semester Project            |
| 11/15/2016        | R       | Antimicrobials                                       | Restriction Enzyme Exercise          |
| 11/17/2016        | S       | Diseases of the Digestive System                     | Contagion: Movie Review              |
| 11/22/2016        | T       | Diseases of the Urinary and Reproductive Systems     | Contagion: Movie Review (cont)       |
| 11/24/2016        |         | <b>Thanksgiving: No Class</b>                        | None                                 |
| 11/29/2016        | U       | Malaria & AIDS                                       | Review for Exam 4                    |
| 12/1/2016         |         | <b>Exam 4: No Class</b>                              | None                                 |
| 12/6/2016         |         | Final Project Presentations                          | None                                 |
| 12/8/2016         |         | Final Project Presentations                          | None                                 |