

# Microbiology (BIO220)

Heather Brown, MSBS – Spring 2017

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**CLASS:** T/R 1:00 – 2:45

**MAILBOX:** Teachers' Lounge

**LAB:** R 3:00 – 5:30

**TEXT:** Microbiology Tortora et. al (Twelfth Edition, though back to the Tenth is fine with me). Textbook Zero: This text is available in a digital format from several sources, including: amazon.com (Kindle) audible.com (Audiobook) barnesandnoble.com (NOOK Book). You can also check with the JC bookstore or your local library regarding possible digital formats.

**LAB MANUAL:** A dedicated bound composite notebook is required. Any lab handouts will be giving in that lab period.

## Course Description

Basic structure and function of microorganisms with special emphasis on recent advances in microbiology, pathogens, disease, control and immunity. Strong biology background recommended. Course includes a laboratory component. Prerequisites are MTH020 or Higher and ENG085.

## General Education Outcome (from JCC Catalog):

GEO 4: Demonstrate Scientific Reasoning

## Course Objectives

The course follows the course objectives as outlined in the current statement for Introductory Microbiology Course Objectives by the American Society for Microbiology (ASM). These objectives can be found at the following [link](#).

## Grade Scale

4.0 = 100 – 93.0%  
3.5 = 92.9 – 85.0%  
3.0 = 84.9 – 80.0%  
2.5 = 79.9 – 75.0%  
2.0 = 74.9 – 70.0%  
1.5 = 69.9 – 65.0%  
1.0 = 64.9 – 60.0%  
0.5 = 59.9 – 55.0%  
0.0 = 54.9 – 0%

All grades are rounded to three significant digits

## Grade Distribution

Lab reports/competencies : 100 points  
Lab Unknown: 100 points  
Exams: 300 points  
Presentations: 100 points  
**Total : 600 points**

Percentage is calculated as a percentage of the total number of possible points. Point totals may be adjusted depending on schedule/material reasons.

## **Course Policies**

### **Course Communication**

All major communications for the course will occur through JetNet and through your Jackson email. The PowerPoints from the lecture will be for an entire unit, but may be broken into parts depending on the file size the server allows.

### **Course Accommodation**

Course accommodations (extra testing time, quiet testing area, etc.) can only be made with a completed accommodation form from the Center for Student Success (CSS) in response to documented need. Accommodations will only be made after I have received the paperwork from CSS and no retroactive adjustments will be made. It is the responsibility of the student to seek accommodations that they are eligible to receive, and the accommodations must be reasonable within the context of the course.

### **Attendance and Participation**

The school has a vested interest in making sure you are attending the classes to help you succeed. With this in mind, we, as instructors, must report your participation on a number of occasions throughout the semester. You will be reported as a V for Verified (meaning you are attending, participating and in addition passing), as an H for Help (meaning you are attending and participating, but not passing), or as Q for Quit (meaning you are no longer attending and/or participating in class). There are several reasons you may be listed as a Q, but it is important to note that once you have been dropped from a class by an instructor you cannot be put back into the class without the instructor's signature.

#### **Reasons for Being Assigned a Q**

- Failure to attend class within the first week without contacting the instructor.
- Failure to attend class for greater than three (3) sessions without contacting the instructor.
- Failure to take two (2) Unit Exams
- Failure to complete three (3) Laboratory Exercises

These conditions will result in an automatic Q during the next HQV reporting period and your dismissal from the course. As previously stated, if you have been dropped from a class by an instructor you cannot be put back into the class without the instructor's signature. If you fail to participate after the final HQV reporting period (1 week after midterm) you will not be automatically dropped from the course but will receive a grade of 0.0 (E) for failing to participate in the course.

Please ensure to show up on time and ready to learn.

## **Electronic Devices and Classroom Courtesy**

All students have a right to the same classroom experience and opportunity to learn. Any disruptive behavior in this class will result in your immediate removal and loss of all points possible on that day (daily quiz, lab, unit exam, etc.). This includes the use of cell phones and other electronic devices. Any electronic devices must be set to silent, not vibrate, to ensure no disruption of yourself or fellow students. You may tape my classes for your future personal use only and use a laptop or tablet for scholarly pursuits but any use of devices that are deemed distracting (yes, I am the one who decides) will be dealt with immediately. Food and drink that is not disruptive is permitted in the lecture room but NO food or drink is permitted in the laboratory. Closed toed shoes MUST be worn in the laboratory, if you are not wearing closed shoes, you will be asked to go home, and will forfeit credit for that class.

## **Academic Integrity and Honesty**

The following is the text from the JCC Catalog and Policy Statements about Academic Honesty:

Any students found cheating and/or plagiarizing will receive a grade of 0.0 for the assessment. A second offense will result in a grade of 0.0 for the course. ALL INCIDENTS WILL BE REPORTED TO THE ACADEMIC DEAN

Faculty members who suspect a student of academic dishonesty may penalize the student by taking appropriate action up to and including assigning a failing grade for the paper, project, report, exam, or the course itself. Instructors must document all instances of academic dishonesty beyond those of a very minor nature, in writing to the Office of the Academic Deans using the attached form.

Students, who are suspected of cheating during a course exam or course placement in the testing lab, will be questioned and reported to the appropriate faculty member or Executive Dean of Students. The proctors are not to stop the exam but report the questionable behavior. As in other instances, the faculty will determine the penalty and appropriate action. If the student is suspected of cheating on course placement, the Executive Dean of Students is to be contacted and will determine the next steps.

The Office of the Academic Deans will record and track students who have been reported as having cheated. If the same student has a second incident, the dean will enact sanctions appropriate to level of infraction. The sanction will be selected in consultation with the involved faculty. The Dean can administer consequences up to and including suspension.

Definitions:

Academic Honesty: Is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

Plagiarism: Is defined as the failure to give credit for the use of material from outside sources. Plagiarism includes but is not limited to:

- Submitting other's work as your own
- Using data, quotations, or paraphrases from other sources without adequate documentation
- Self-plagiarism – is the reuse of significant, identical or nearly identical portions of one's own work without acknowledging that one is doing so or without citing this original work

Cheating: Is defined as obtaining answers/material from an outside source without authorization.

Cheating includes, but is not limited to:

- Plagiarizing in any form
- Using notes/books without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical

(<http://www.jccmi.edu/policies>)

## **Incomplete Policy**

The following is the text from the JCC Catalog and Policy Statements about an Incomplete:

Students may receive an “I” if, at least 90 percent (or as otherwise designated within the course syllabus) of the coursework is completed with an average grade of 2.0 to meet the objectives as specified in the course syllabus. The student shall complete appropriate documentation and follow defined procedures to request an incomplete grade considered. The course objectives are to be satisfactorily completed during the next semester or within a shorter period of time as determined by the instructor. The instructor and student shall work together to determine when the work is to be completed taking into consideration any extenuating circumstances which may cause the one semester to be extended; however, a due date is required. If the student does not complete the course within the designated period, the Registrar will replace the “I” grade with the earned grade as originally assigned by the instructor.

The grade of “I” is not awarded to students who did not attend, seldom attended, or to those who simply are not pleased with their final grades. Students receiving an “I” submit only the remaining work that had not been completed at the end of the semester. Students do not redo work that had already been graded. (<http://www.jccmi.edu/policies>)

## **Extra Credit and Missed Work**

There is no extra credit available, per department policy, and no make-up/late work. Any deviation from this is solely at my discretion. If I do make an exception to any policies in the course they will be communicated in written (email) form for future reference.

## **Course Assessments**

### **Unit Exams**

There will be four (4) in class exams during this course. The highest three (3) grades you receive will be counted towards your final grade. The goal of the in class exams is to gauge your basic understanding, retention and application of the information discussed in class. You will be allowed one and a half hours for the exams, though typically students complete the exams within 45-55 minutes. Showing up late on exam day will not give you extra time to complete your exam. You will be allowed a 3”X5” index card for each exam, but solely relying on it may be detrimental, as it is highly recommended that you study to prepare for the exam. It is the assumption that you will be able to not only recall concepts but utilize what you have learned to use rational thinking to solve problems. The exam questions will be a combination of the following: multiple-guess, matching, true/false, fill in the blank, problem-solving, diagrams and short answer. Each Unit Exam is worth one hundred (100) points and your three (3) highest scores count towards your final grade.

### **Presentation**

Each student will be assigned a pathogen at random early in the term. You will be required to research the organism and present an eight to ten (8-10) minute informational presentation to the class at the end of the term. The assignment will be laddered with various sub assignments due throughout the term.

### **Lab Reports**

You are required to keep a lab notebook. At the end of some lab periods there may be questions for you to complete and turn in. For others, questions may be provided on the board. It is highly recommended that you keep a good, clear lab notebook as the labs are comprehensive and you will need to know how to perform the procedures to help you identify your unknown as well as other future lab assignments. Failure to attend lab, submit the lab assignments, or complete work will result in point deductions, the magnitude of which is at my discretion.

## **Lab Unknown**

The purpose of the lab is to learn to utilize the methods and techniques of the lab. To assess this understanding we perform an unknown identification at the end of the term. This project will be completed using the concepts learned throughout the lab.

## **Grade Normalizations**

All Unit Exams will be subject to a grade normalization (what many of you call a curve). The extent of the normalization will be the lowest positive or zero value of the following conditions.

- The points needed to bring the class median to 74%
- The points needed to bring the highest score to 100%

## **Use of Notes and Study Guides**

Based on the recommendation of my colleagues and my experience as a student, I have decided on the following policy. No study guides will be provided. I know this may sound harsh, but the policy is from years of experience and expectations for work you will be required to do in the future. I find that the use of study guides consistently leads to students expecting the test to be specifically off the study guide which is not what the exams are about. For the Unit Exams a **3”X5”** handwritten notecard may be used.

## **Submission of Class Assignments**

If you submit materials electronically, these files should be in Microsoft Office format (Word, Excel, or PowerPoint) and must be received by me before the start of class on the due date. Late files, files in a non-Office format, or unreadable files will result in a complete loss of the points for the assignment. The failure of email at the last minute is not an acceptable excuse and only failure of JC email systems will be taken into consideration.

**Course Schedule (subject to change with notification)**

<u>Class Date</u>	<u>Lesson</u>	<u>Chapter(s)</u>
5/23	Syllabus/Nature of Science	
5/25	History of Microbiology	1
5/30	Chemistry	2
6/1	Cell Structure	4
6/6	Exam 1	
6/8	Enzymes	5
6/13	Metabolism	5
6/15	Growth	6
6/20	Control	7
6/22	Exam 2	
6/27	Genetics	8
6/29	Genetics/ Biotech	8/9
7/4	NO CLASS	
7/6	Biotech	9
7/11	Taxonomy	10
7/13	Exam 3	
7/18	Fungi/Protists	12
7/20	Protists/Viruses	12/13
7/25	Viruses/Infection	13/14
7/27	Infection/Pathogenesis	14/15
8/1	Pathogenesis	15
8/3	Exam 4	
8/7	Presentations	
8/10	Presentations	



## Learning Contract

I, \_\_\_\_\_ (print your name), have been given a copy of the syllabus/policies for Introductory Microbiology (BIO220) taught by Professor Heather Brown, during the Spring 2017 term at Jackson College. The following conditions for the class were explained to me during class.

- Copies of the PowerPoints will be provided on JetNet for the course, but hardcopies of these slides are not allowed to be used for the quizzes.
- There are no make-up labs, daily quizzes, lab quizzes, or exams in the class. Periodic absences are accounted for in the dropped grade policy for the course.
- While the occasional absence or tardiness in this class can be absorbed by dropped grades, the student is still responsible for the missed information and any schedule changes that occur during your absence.
- Lab attendance is required for the course. Failure to attend three (3) labs will result in the automatic failure (with a grade of 0) of the course.
- This class involves a laddered oral/multimedia presentation.
- This class involves a lab using live bacteria and fungi.
- Only reasonable accommodations properly registered and reported by the Center for Student Success (CSS) will be honored in the class, no other changes to class protocol are to be assumed.
- A preliminary schedule for the class was given to the class in the syllabus, but it is possible that dates may change. Any major assessment (exams, lab quizzes, or formal lab) day changes will be done with at least seven (7) days notice to the class. This does not pertain to daily quizzes.
- Absences are not judged as excused or unexcused. The student is assumed to be an adult and capable of prioritizing their lives and class, so no consideration will be given for early/late testing due to absences for personal reasons (i.e. vacations during term). The performance of governmental service (military, jury duty, etc.) is the exception to this rule and will require documentation.
- Medical leave is subject to the dropped scores policy, and occasional absences for such will be handled through that policy. If extensive medical concerns occur, it is the responsibility of the student to seek a withdrawal for medical reasons, or an incomplete (if appropriate).
- The audio recording of the lectures is permitted for personal use, as are still images of materials or specimens. However, no video recording or public sharing of class materials is allowed.

These conditions and all assessment criteria/policies of the class were explained during the first meeting of the class. I have been given a minimum of thirty-six (36) hours to review the materials outside class and email any questions to the professor. I agree to abide by the requirements of the course as outlined in the syllabus and other materials provided.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_