BIO 2924 – Online Microbiology - Spring 2017

Pearl River Community College Mission Statement: Pearl River Community College is a public institution committed to providing quality educational service opportunities to all who seek them.

Instructor: Dr. Amanda Parker
Office: Forrest County Center – Allied Health 235
Office Hours: Monday 8:00 – 9:00; Tuesday 1:30 – 2:30; Wednesday 1:00 – 2:00; Thursday 1:30 – 2:30
Phone: 601-554-5506 (a secretary will answer; please let her know you are one of my students)
Email: aparker@prcc.edu
Online Office Hour: Thursday 1:20 – 2:30

During the online office hour I will be accessible through a blackboard collaborate classroom (online) or by phone or email.

Course Description:

A survey of microbes (microscopic organisms) with emphasis and detailed study being placed on those affecting other forms of life, such as man. The goal of this course is to familiarize you with the various microbes studied in order to understand the impact microbes have on our life. This course should help you understand the importance of bacteria in world.

Required Materials:

Lecture Text: *Microbiology: An Introduction*. 11th edition. Totora/Funke/Case.

You will be charged a course fee that provides you access to your textbook in an online format through Canvas. This fee also provides you access through canvas to mastering microbiology. If you prefer a hardcopy text, you may choose to purchase the textbook in an *al la carte* version from the bookstore for a nominal fee.

Lab Materials: *Escience* kit available in the bookstore.

Goals & Objectives:

In this course we will study the anatomy and physiology of prokaryotic and eukaryotic cells, metabolism, prokaryotic cell growth, control of prokaryotic growth, epidemiology, bacterial diseases, eukaryotic diseases, virus anatomy and physiology, viral diseases, and the immune system. We will also learn basic microbiology laboratory techniques including microscopy, inoculation, and media recognition.

Instructional Techniques:

In this course we will use various instructional techniques such as PowerPoint presentation, audio lectures available through You Tube, animation based assignments through Mastering Microbiology, online assessments through Canvas, Blackboard Collaborate interactive classrooms, journals, self-paced learning, reading, and in-person examinations. In lab, we will complete actual experiments as well as testing using the techniques mentioned above.

Student Learning Outcomes:

Lecture:

- Demonstrate knowledge of the main classification schemes for prokaryotic, eukaryotic organisms and agents.
- Demonstrate knowledge of microbial growth and metabolism along with the common methods to control such growth.
- Demonstrate knowledge of epidemiological concepts and mechanisms.
- Demonstrate knowledge of innate and specific immunity.
- Demonstrate knowledge of common interactions between microbes and humans, both beneficial and those leading to disease.

Lab:

- Successfully prepare and visualize microbes and various microbial structures under the microscope.
- Demonstrate knowledge of a microbe's metabolic requirements using various selective and differential media.
- Identify an unknown bacterium.

Evaluation & Grading System:

Your final grade in the course will come from a combination of your lecture and laboratory work. Calculation of your grade will include of 2 proctored exams that cover both lecture and laboratory work, a final lab report, weekly online exams, and multiple online assessments in Canvas and mastering microbiology.

- Online assessments include animation based homework assignments, multiple choice homework assignments, and short answer assignments. These are never timed. You will access these assignments through Canvas and Pearson Mastering Labs.
- All online exams and proctored exams will be a combination of multiple choice, fill-in-the blank, and short answer questions. Online exams and proctored exams will be timed and only accessible once. Online exams will be timed based on the length of each individual exam. Proctored exams must be scheduled at a PRCC proctor center (information below). For these exams you must present a valid PRCC ID. Proctored exams will not require a scantron, only a pencil is required when attending a proctored exam. You will have two hours to complete each proctored exam.

Online weekly exams (MC, Fill-in-Blank, Short Answer)	40% of the final grade
Daily work (On-line assignments and quizzes)	20% of the final grade
Midterm Exam (Proctored)	15% of the final grade
Final Comprehensive exam (Proctored)	15% of the final grade
Final Lab report	10% of the final grade

Drop grade/Reset policies: I will not reset any Canvas material (quizzes or online homework assignments) regardless of the excuse. You are responsible for making sure you browser is compatible with these sites. I find the best results using Google Chrome. In case of any computer issues or unexpected absences (incompletion of work) your lowest two daily assessment grades will be dropped

and your lowest online exam will be dropped. There will not be any dropped proctored exams. You will not receive a grade for the course if you miss a proctored exam.

Proctored Exam Information:

It is your responsibility to schedule proctored exams. Make note of the exam dates now and schedule your place at the proctor center. To schedule your proctored exams you must use Smarter Proctoring. To access a training video please visit http://www.prcc.edu/elearning/student-training.

Please schedule a 2-hour time slot for each proctored exams. The exams will contain no more than 100 questions. Students typically do not use the entire 2-hour time slot.

Grade Scale:

90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
0% - 59%	F

Please do not assume that final grades will be curved. The above grade scale is approved in our policy. An instructor is not required to round an 89.5% up to a 90%.

Attendance:

Attendance is not optional. Any student that does not log into the online sites to complete assignments weekly will be considered absent that week. Completion of any online work will count a student as present in the course. However, you are NOT allowed to complete work past the due date. **Due dates are always on a Sunday night at midnight.** Once you have missed the third week (had three weeks with no assignment submission), you will be cut from the course per PRCC policy. For a complete list of PRCC policies you should read the Cat Country Guide. Dismissal from a course due to excessive absences results in the receipt of an F in the courses. If you are cut from lecture, you will also be cut from lab. If you miss a proctored exam, you will not be allowed to make up the exam. Make time in your schedule now to complete the proctored exams during the open time frame. It is unfair to other students to extend deadlines for some students.

As a PRCC student, you need to become familiar with GradesFirst. GradesFirst is an online tool where you can email your instructors, view your schedule, contact advisors, and look up midterm and final grades. GradesFirst is used by instructors to track your absences. Once you are marked absent for a given day, you will receive an email from GradesFirst notifying you of the absence.

Working ahead in the course is allowed and appreciated, but it is NOT a good idea to get behind!

Academic Dishonesty:

This course requires work to be completed at home. Therefore, it is imperative that you realize it is still considered cheating to use improper materials and/or to allow someone else to complete your

work. In addition, plagiarism is not allowed in this course and will result in course dismissal if observed. Do not copy your textbook, my PowerPoint notes, or any other source word-for-word. This is a copyright violation. Do not turn in the same work as a classmate. Even if you work together to complete a homework, you must still do it in your own words. It is not allowed to complete online exams together. Any student that is caught cheating will be dismissed from the course with an F. This statement is your warning.

Disability Statement:

If you have a disability that qualifies under the Americans with Disabilities Act and you require special assistance or accommodations, you should contact the designated coordinator for your campus for information on appropriate guidelines and procedures: Poplarville Campus, Tonia Moody at 601-403-1060 or tmoody@prcc.edu; Forrest County Center, Beth Strahan at 601-554-5530 or bstrahan@prcc.edu; Hancock Center, Raymunda Barnes at 228-252-7000 or rbarnes@prcc.edu. Distance Learning Students who require special assistance, accommodations, and/or need for alternate format should contact Tonia Moody at tmoody@prcc.edu.

If you have any difficulty accessing any of the information on Canvas such as audio lectures or animations due to a disability, please let me know. You may request transcripts of audio material. However, this disability must be registered with the ADA Coordinator.

Important Pre-requisite: Students are required to have previously completed Biology I or Principles of A&P I with a grade of C or better.

Important Notes from your Teacher:

This is an online class. You need to be aware you are required to read, study, and complete homework on a regular basis within the time limits set. In order to succeed in an online course you must be motivated. I have provided recorded lectures from my traditional microbiology class for your use. If you are having a difficult time understanding all the material, listen to the full length lectures or come see me for more one on one help.

Netiquette:

It is important that you realize you must use proper English when communicating with me or your fellow students at all times. This means the use of "texting lingo" or foul language is not allowed. You will be dismissed from the course if you do not follow rules after being warned.

Canvas:

Many online homework assignments, quizzes, announcements, lecture notes, audio lectures, and online exams will be posted and completed through canvas.

- To access canvas, go to https://prcc.instructure.com/login (for log in help, contact me!)
    - You will click on your course
    - You will click on modules and choose the appropriate week once you enter your course.
- There is always a lecture page where the Power Points and any instructions are located and a lab page where the instructions for lab are located.

- Weekly homework assignments can be accessed in Canvas. I will "sync" the grades and your homework grade will post weekly.
- Weekly online exams can only be accessed once and are timed. I recommend you complete homework assignments and read BEFORE you take exams. Remember I will not reset online exams. You will receive one drop daily grades for this reason.
- An announcement will be posted weekly to guide you through the requirements of the week. This can be found under the announcements tab and in your inbox.
- Lecture notes are available to help you summarize each chapter. You may print these notes if you like or just save them for your own use.
- Audio lectures on YouTube under the name Mandi Parker are available to help you understand the material in each section. I recommend you listen to these before you take online exams.
- Online exams MUST be completed by the due dates listed below on the schedule. They will be available for one week. Online exams are timed and only accessible once. Time to complete the weekly exams will depend on the length of the exam.
- Lab assignments each week will require you to complete actual experiements using your eScience kit and complete assignments in canvas.

NOTE: Make sure you complete all required items each week. They will not be available after the due date. I will not give any make-up material regardless of the reason. You may work ahead if you like.

Mastering Microbiology:

Additional online assignments are located within the my lab and mastering tab in Canvas. There will be one homework assignment in mastering for most chapters we cover. In addition, mastering has tutorial videos, additional practice questions, interactive flash cards, case studies, etc. Grades will sync at the end of each week.

Summary of Weekly Work

All weekly work must be completed by Sunday night at midnight! This will serve as the end of the week. Each Monday morning a weekly announcement will post that looks similar to the bullets below Each week you MUST log into Canvas several times to become familiar with the work. As you log into canvas you must click on the modules. Once you choose the appropriate week, complete the following tasks in the correct order:

- Download/print chapter PowerPoints
- Read the corresponding chapter
- Listen to the corresponding audio lectures
- Complete the online assignments in canvas and mastering (amount of assignments vary each week)
- STUDY!!!!
- Complete the weekly timed online exam
- Complete you lab assignment(s)

Note: you will have work even if a holiday occurs within the week and during proctored exam weeks!

Exam Coverage

Online Exam 1: Chapters 4
Online Exam 2: Chapters 5
Online Exam 3: Chapter 6 - 7
Online Exam 4: Chapters 14
Online Exam 5: Chapters 16 – 17
Proctored Midterm Exam – Material tested on online exams 1 – 5 AND lab
Online Exam 6: bacterial diseases
Online Exam7: Chapters 12
Online Exam 8: Eukaryotic Diseases
Online Exam 9: Chapter 13
Online Exam 10: Viral Diseases
Proctored Final Exam – Material tested on online exams 6 – 10 AND lab

FALL COURSE SCHEDULE

Date	Topic	Textbook Chapter	
Week 1	Introductions Importance of Microbiology		
Due date –			
Week 2	Prokaryotic Cell Structure/Function Eukaryotic Cell Structure/Function Microbiology Lab Safety	Chapter 4 Lab	
Due date –			
Week 3	Microbial Metabolism Introduction to the Microscope	Chapter 5 Lab	
Due date –			
Week 4	Microbial Growth Control of Microbial Growth Structure and Microscopy	Chapter 6 Chapter 7 Lab	
Due date –			
Week 5	Principles of Disease and Epidemiology Introduction to Culturing and Aseptic Technique	Chapter 14 Lab	
Due date –			
Week 6	Innate Immunity Adaptive Immunity Continue lab	Chapter 16 Chapter 17 Lab	
Due date –			

	PROCTORED MIDTERM EXAM		
Week 7	Immunity and the Real World Chemotherapy Growth of Microorganisms	 Lab	
Due date –			
Week 8	Bacterial Diseases Media: PR, Citrate, Urea, MSA, MAC, EMB, SIM, TSI, MR-VP	Chapters 21 – 26 Canvas Lab	
Due date –			
Week 9	Eukaryotic Cells Selective Media and Agar	Chapter 12 Lab	
Due date –			
Week 10	Eukaryotic Diseases Differential and Biochemical Tests	Chapters 21 – 26 Lab	
Due date –			
Week 11	Viruses Review Media	Chapter 13 Canvas Lab	
Due date –			
Week 12	Viral Diseases Analysis of Unknown: Gram & Shape	Chapters 21 – 26 Canvas Lab	
Due date –			
Week 13	New Job Analysis of Unknown: Reactions	 Canvas Lab	
Due date –			
Week 14	Course Reflections Project & Final Lab Report		
Due date –			
Week 15	Course Reflections Project & Final Lab Report		
	PROCTORED FINAL EXAM		

Weekly Assignment Checklist

Date	Topic		
Due date –	• Syllabus Quiz • Student Introduction Discussion with comments to classmates • Are Microbes Bad Discussion with comments to classmates		
Due date –	• Chapter 4 Study Questions • Chapter 4 Mastering HW • Chapter 4 Online Exam • Week 2 Experiment Questions • Week 2 Lab Photo upload		
Due date –	• Chapter 5 Study Questions • Chapter 5 Mastering HW • Chapter 5 Online Exam • Week 3 Experiment Questions • Week 3 Experiment Questions		
Due date -	• Chapter 6 & 7 Study Questions • Chapter 6 Mastering HW • Chapter 7 Mastering HW • Chapter 6 & 7 Online Exam • Week 4 Experiment Questions • Week 4 Experiment Questions • Week 4 Lab Photo Upload		
Due date –	• Chapter 14 Study Questions • Chapter 14 Mastering HW • Chapter 14 Online Exam • Week 5 Lab Photo Upload		
Due date –	• Chapter 16 & 17 Study Questions • Chapter 16 Mastering HW • Chapter 17 Mastering HW • Chapter 16 & 17 Online Exam • Week 5 Experiment Questions • Week 6 Lab Photo Upload		
	PROCTORED MIDTERM EXAM		
Due date –	• Importance of Vaccinations in Society Discussion with comments to classmates		

	• Chemotherapy? Is it always necessary? Discussion with comments to classmates • Week 7 Experiment Questions • Week 7 Experiment Questions • Week 7 Lab Photo Upload
Due date –	• Bacterial Disease Chart Study Questions • Bacterial Diseases Online Exam • MSA EMB MAC pre-assignment • PR urea citrate pre-assignment • SIM TSI MRVP pre-assignment
Due date –	• Eukaryote Study Questions • Chapter 12 Mastering HW • Eukaryote Online Exam • Week 9 Experiment Questions • Week 9 Experiment Questions • Week 9 Experiment Questions • Week 9 Photo Upload
Due date –	• Eukaryotic Disease Chart Study Questions • Chapter 12 Mastering HW • Eukaryote Online Exam • Week 10 Experiment Questions • Week 10 Experiment Questions • Week 10 Lab Photo Upload
Due date –	• Chapter 13 Study Questions • Chapter 13 Mastering HW • Chapter 13 Online Exam • 3 Canvas Quizzes
Due date –	• Viral Diseases Study Questions • Viral Diseases Online Exam • Analysis of Unknown: Gram & Shape
Due date –	• New Job Discussion with comments to classmates • Analysis of Unknown: Reactions
Due date –	• End of Semester Discussion with comments to classmates • Final Lab report
Due date –	• Student Learning Outcome Bonus Quiz
	PROCTORED FINAL EXAM