

BIOL 2420.101CL Microbiology Spring 2024

M/W 11:00am-1:50pm; Lecture – Mon (STE 342); Lab – Wed (STE-317)

Instructor Information: Dr. Raymond Nwachukwu; RNwachukwu@com.edu; (409) 933-8502

Student (Office) hours and location:

Office Hours: M/W 4:30pm-6:30pm; T/R 4:30pm-6:00pm; or by appointment.

Location: STE 325-24

Required Textbook/Materials:

<u>Textbook</u>: Tortora, G.J., Funke, B.R. & Case, C.L., 2016. *Microbiology: An Introduction, 13th edition* (e-Text), Boston, MA; Pearson Education, Inc. Publisher bundled with Mastering Microbiology on-line component. ISBN-13: 9780134605180. This e-book, together with the Mastering Microbiology component, is purchased at the time of registration, and you will gain access once you are in D2L from the first day of class.

<u>Lab manual</u>: Alderson, G.D., 2015. *Microbiology Experiments & Lab Techniques*, 14th edition; Southlake, Texas, Fountainhead Press Publisher. ISBN-13: 9781598718782. This is <u>not</u> part of registration payments. It's available at COM bookstore.

<u>Lab Coat</u>: Made of polyester, cotton, or blend (No disposable plastic coats). Detailed information is found <u>here</u>. You will keep your lab coat in the lab in a designated place after each lab. You may take it back with you, if you so desire, at the end of the last lab of the semester.

Exam Scantrons: Six (6) computer answer forms (Scantron Form #888-E) available at the COM bookstore. Everyone is responsible for their scantron forms: I don't keep them for students.

<u>Software & hardware</u> – The computer and internet configurations needed for this class are:

- **Computer** with up-to-date operating systems.
- ❖ Microsoft Office (Word, PowerPoint, etc.). COM offers <u>free Office 365</u> access for students. Use your COM ID to get it. Contact COM IT <u>helpdesk</u> for assistance if you have problems.
- ❖ Brightspace-supported **web browser** (e.g., Chrome).
- ❖ Java installed and updated.
- ❖ Your **COM e-mail** account
- **❖ Wi-fi/Internet** access
- ❖ Adobe Acrobat Reader DC. Available for free at https://get.adobe.com/reader/otherversions/.
- ❖ Phone scan app (e.g., Adobe Scan) on Phone allows you scan/convert assignments into PDFs using your phones (if you want to submit assignments online). This is necessary but not required.
- **Webcam**. Usually inbuilt into your computer/laptop. Only required if taking an exam online.

* Respondus Lockdown Browser. Only required for students that take exams online. May not be compatible with mobile devices.

Other Accessories:

- i. Safety glasses provided in the lab. Purchase yours if you do not want to use common ones.
- ii. **Coloring pencils** required for use in the lab.
- iii. **Sharpie** to be used in the lab.
- iv. **Mask/Face Covering** <u>Not required; it is totally optional</u>. If you choose to wear it, a disposable mask is recommended because you <u>must</u> dispose of it in the trash bin at the end of each lab before leaving the lab room.

Course Description: This course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health. This course covers basics of culture and identification of bacteria and microbial ecology.

Course Prerequisites: Two lab-based courses (eight credit hours) selected from biology or chemistry core curriculum courses with a grade "C" or better.

Course requirements:

Exams – Lecture & Lab

You will have two lab practical and four lecture exams over the course material. The lecture exams will be in multiple-choice format, reflecting fill-in-the-blank, matching, identification, and true-false questions. The lab practical will consist of a mixture of identification, multiple-choice, fill-in-the-blank, and short answer questions. *The spelling of any biological/scientific term must be correct & the format/rule of binomial nomenclature must be observed to receive credit.* However, the lecture exams may, at the discretion of the instructor, be taken at COM Testing Center or made available in D2L to be taken online via Respondus Lockdown Browser+webcam if the student meets any one of these 2 conditions:

- 1. The student qualifies for accommodation and specifically requests not to take the exam in class.
- 2. The student is not (or may not be) present on the scheduled test date due to <u>excused</u> absence.

Each test must be done by the due date. Any test not completed by the due date will receive a "zero" grade. The dates listed in the course schedule of this syllabus may not be exact; follow the D2L <u>calendar</u> and announcements for authentic due dates.

I retain all Exams and labs. To review any test, you need to make an appointment with me within one week after the test. For tests taken online, the reviews are available there immediately after submission.

Quizzes – Lecture & Lab

Lecture quiz: You will have ten (10) lecture quizzes and one syllabus quiz. The syllabus quiz must be taken online and doesn't require Respondus. Each of the ten (10) lecture quizzes will reflect 2-3 chapters of the textbook. All lecture quizzes will be taken online either through Respondus lockdown browser or directly through D2L. Every quiz must be completed by the due date. The quiz with lowest grade will be dropped.

Pre-Lab quiz: For most of the lab activities/exercises, there will be a pre-lab quiz, taken before coming for lab of the day. To ensure you understand the **background** material and the **procedures** in the specified lab, you will need to take this quiz to demonstrate that you are ready to enter the lab. A score of 70% or more means you have proficient understanding of the lab concept and procedures. A score below 70% means you are ill-prepared for the lab and are advised to <u>hand-write</u> the procedure of the lab that will be covered in that exercise. If you fail to take the pre-lab quiz or submit a hand-written procedure, you may hurt your lab grade. No need to write out the procedure if you scored 70% or more in the pre-lab quiz.

Laboratory Activities

All lab activities are mandatory (see the <u>Attendance policy</u>). You will have about thirteen (13) lab sessions, out of which a student cannot miss more than 20% (see <u>Lab attendance</u>). Each session may involve multiple lab exercises from the lab manual. The labs will be done as a teamwork involving 3-4 students per team. Every student must sign up to a team by the 2nd day of the 1st week if not already assigned by the system. For each lab exercise, there is a lab report (Results and discussion) that is associated with it. Each team will turn one completed report at the end of every exercise, with the name of every team member written on the front page. (For details, go to "Read Me First" module in the D2L and see "*How to Join a Lab Team*".) If a student does not follow proper lab safety protocol during the course of any experiment, he/she will be penalized by points deduction from the lab report. There is an individual activity, called Pre-Class Exercise (also in "Read Me First" module), that must be completed in the 1st week of the semester. The Pre-Class act is a Brightspace & syllabus orientation exercise.

Mastering Microbiology Assignments

There will be altogether twelve Mastering assignments namely, one **Lab safety** exercise and eleven **Homework**. These assignments are a required component of this course. The lab safety is part of the Lab component of the course and carries 10 points, while the homework is part of the lecture component and each carries 15 points. You are required to do any **ten** (10) of the 11 homework assignments. But if you do all 11, the lowest grade will be dropped. With your e-textbook purchased during registration, you have access to the Mastering program on the first day of class.

Extra Credits

There will be opportunities to earn bonus points if you meet the eligibility requirement (see the <u>extra</u> <u>credit policy</u>). The extra credits are optional and will not affect your grade if you do not do them, but they may improve your final grade if you do them.

Respondus Lockdown Browser and Monitor

This software is required in order to take any exam online. To download and install it, log into D2L, click on "Quizzes" tab, click on "practice test" (or any quiz that requires Lockdown Browser), scroll down to the end and click on "Launch Lockdown Browser". Follow the prompts to complete the installation. Watch this <u>short video</u> to get a basic understanding of Lockdown browser and the webcam feature. A student <u>Quick Start Guide</u> is also available.

To ensure Lockdown browser and the webcam are set up properly, do the following:

- **Start Lockdown browser (the same way you start other web browsers such as chrome).**
- ❖ Log into D2L and select this BIOL 2420 (Microbiology) course.
- ❖ Locate and select the Help Center button on the lockdown browser toolbar.
- * Run the Webcam Check and, if necessary, resolve any issues.

- * Run the System & Network Check. If a problem is indicated, see if a solution is provided in the Knowledge Base. Troubleshooting information can also be emailed to our institution's help desk.
- ❖ If using a built-in webcam, avoid tilting the screen after the webcam setup is complete.
- ❖ Exit the Help Center and locate the quiz named Practice Test.
- Exit Lockdown browser upon completing and submitting the test/quiz.

Any online exam a student fails to take through Respondus lockdown browser + webcam <u>will not be</u> <u>accepted.</u> (I will award a "zero" for such test).

Determination of Course Grade/Detailed Grading Formula: Grades are based on weight, not points.

Course Assessment	Total Points	Percentage of Course
LECTURE PORTION	80 0	65.0%
Lecture Quiz (10)	150	10.0 %
Mastering Homework	150	15.0%
Lecture Exam (4)	400	40.0 %
Term Paper	100	10.0 %
LABORATORY PORTION	470	35.0%
Lab Practical (2)	200	18.0%
Lab Activity & Quiz	220	13.0%
Lab Project	50	4.0%
TOTAL POINTS	1,270	100%

Grading Scale:

A – A weighted earned grade that equals 90% or more

B – A weighted earned grade that is between 80% and 89% inclusive

C – A weighted earned grade that is between 70% and 79% inclusive

D – A weighted earned grade that is between 60% and 69% inclusive

 \mathbf{F} – A weighted earned grade that equals 59% or less, or that fails to meet either the <u>lab science policy</u> or the <u>lab attendance</u> policy

FN – A weighted earned grade that equals 59% or less due to discontinued attendance and participation.

I – An incomplete may be assigned at the discretion of the instructor in accordance with the college policy

W – A withdrawal may be assigned in accordance with college policy.

Lab Science Policy:

The grade for this course consists of both lecture and laboratory components. Students must earn a 70% or better in the laboratory component to pass the course. Earning less than 70% in the laboratory component will result in an F for the course regardless of the lecture or overall grade. Passing the laboratory component and failing the lecture component will not guarantee a passing grade for the course. Deviations from this policy will be at the sole discretion of the instructor.

Late Work, Make-Up, and Extra-Credit Policy:

Late work

Do not turn in any assignment late. A substantial number of points, up to 100%, may be deducted.

Make-up

There may be a maximum of one (1) make up, at the instructor's discretion, for lecture exam missed due to an excused absence with <u>documented</u> evidence. If one must miss a lecture exam because of an emergency, he/she must contact the instructor **before** the start of the scheduled exam and provide documentation as legitimate proof of the absence. Arrangements may be made for the student to take the exam, either online or at the Testing Center, at a time not later than 48 hours after the scheduled date. If you knew in advance that you would be unable to attend an exam, you may take the exam earlier than scheduled. There is no make-up for any missed online assessment, lab practical, or final exam. Every assignment and quiz to be taken online will be available and accessible for at least 5 days. Therefore, there is no excuse for missing a due date. The instructor could, however, make exceptions to this policy on an individual basis under special circumstances.

Extra credit

Extra credit assessment grades are dependent on your attendance. If a student has <u>attendance below 80%</u>, he/she may <u>not</u> be eligible for extra credit points. Any extra credit earned by that student may not be applied in the final grade calculation.

Attendance Policy:

Attendance and participation are critical to success in this class. I do know that circumstances such as death in the family, illness, etc. come up unexpectedly and may cause a student to be tardy or miss a class. I expect that the student would make every effort to come to class/lab on time, or contact me if he/she is running late or needs to miss class. This **does not** automatically grant excused absence. For an absence that would lead to missing a lab or a test to be excused, the student must provide documentable evidence, such as a doctor's note, written in the English Language, for the absence to be excused. A student with excused absence may be exempted from the missed lab grade or rescheduled for a make-up lecture exam.

- Attendance is taken twice a week; one for lecture, the other for lab.
- If a student accumulates 2 consecutive absences, or misses a due required assessment, I may submit his/her name to the <u>Early Alert System</u> to visit with the Student Success Center.
- Total attendance below 70% may prevent a student from taking the final exam.
- A student with a total average attendance below 90% may be disqualified from having the lowest lecture exam grade dropped or replaced by a higher final exam grade.

Lab attendance – A student is required to come to lab and participate in at least 80% of the lab activities to complete the exercises required in the laboratory component of this course. Failure to attend 80% of lab meetings will result in a failing laboratory grade and an "F" grade for the course. Attendance is taken at the beginning of lab (15 minutes after lab begins). Excused absences (with documented evidence) will be handled on a case-by-case basis and at the discretion of the instructor.

Lecture attendance – Lecture attendance is taken at the beginning of class (10 minutes after class begins). Excessive absence from lectures may disqualify a student from taking the final exam.

Tardiness and early leave – Tardiness, recorded in the attendance register as partial attendance, may result in an absence if the student is not present without excuse 35 minutes after class has started. It could prevent a student from participating in lab activities. Also, **do not** leave early! Unexcused early leaving, more than 45 minutes before end of class or lab, counts as tardiness.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means.

<u>Note</u>: Email is the preferred means to reach or communicate with the instructor. Expect responses within 24 hours during the week or 48 hours on weekends.

Additional Policies regarding Course Communication, Lab Use and Test Taking:

If you are having difficulty with the class or course material, discuss with the instructor during office hours. You may also contact me via email to discuss or to make an appointment.

The following rules apply to all students during lecture or lab:

- No restroom trips during any exam or lab practical.
- > Do not wear caps or hats with brims during any exam or practical.
- ➤ All phones & electronic accessories must be turned off and put away during <u>every</u> quiz or exam.
- Use of phones/electronics or accessories for texting, chatting, etc. during class/lab is not allowed. The device will be confiscated for the rest of the day, or the student dismissed for the day. If dismissed, the student will receive a "0" for any graded activity of that day, and the attendance will be recorded as "absent".
- ➤ One who fails to obey these rules violates the civility and <u>academic integrity</u> codes. If the violation is during a test, the student will get a "0" for the exam or quiz. A repeat violation may get the student ultimately dropped from class.

When taking an online exam, remember the following guidelines:

- ❖ If the computer or networking environment is different from what was used previously with the webcam and System & Network Check in <u>Lockdown browser</u> above, run the checks again prior to starting a test.
- ❖ Ensure you are in a noise-free location where you will not be interrupted. No sound from people, television, radio, or other sound-producing gadgets and appliances must be heard. Your completed test may be rejected for noncompliance and a "zero" awarded.
- ❖ Be sure that the room is well-lit. Avoid backlighting, such as sitting with your back to a window.
- Turn off all other devices (tablets, phones, second computers, etc.) and place them outside of your reach.
- Remove, and put outside of your reach, any apple watches you wear.
- ❖ Clear your desk of all external resources or materials not permitted books, papers, notes, etc.
- Do not wear baseball caps or hats with brims.
- ❖ Do not block/mask/cover the camera with your palm or anything else while taking a test.
- ❖ Ensure your computer/tablet is on a firm surface (desk or table). Do not have it on your lap, a bed, or other surface where the device is (or you are) likely to move.
- ❖ If using a built-in webcam, avoid tilting the screen after the webcam setup is complete.
- * Know how much time is available for the test; ensure you have allotted enough time to finish it.
- * Remain at your computer for the duration of the test.

<u>Technology Outage</u> – Students are responsible for maintaining their hardware, software, and Wi-Fi or Internet connection to the course. <u>No additional time will be provided for hardware, software, or Internet connection problems that interfere with student's ability to access the course and/or complete online <u>assessments</u>. If you are incapable of maintaining your own system, use the computers available on campus. The Tutoring Center and Library are open during the week for students to access computers. Be</u>

mindful that access to college computers is limited by the hours of operation for the tutoring center and library. You are responsible for staying abreast of these times. See Academic Success, Tutoring Center & Support Services below for more details. (Note, *Respondus Lockdown Browser & monitor may not be available on the COM computers*.) If a verifiable interruption in access to the Course Management System (D2L) lasts for fifteen minutes or longer and occurs within twenty-four hours of an assignment/test, that assessment deadline may be extended at the discretion of the instructor.

If a student needs a quiet place to study and/or take an exam, the Tutoring center and the Library are open through the week for such students. Remember to go with your laptop if the purpose is to take an online test that requires lockdown browser+webcam.

Navigating the Course on Brightspace: The first place to begin on the D2L is the "Read Me First". There, locate and complete the *Pre-lab Exercise* (orientation & syllabus exercise). It is the best navigation resource, and it is a graded assignment. Another resource that gives you valuable information and directions for navigating D2L is "Navigating the D2L" also in "Read Me First" module.

Technical and Tutorial Assistance:

For technical assistance or to report a problem with D2L, contact the Educational Technology Services (ETS) by clicking on "Course Resources" tab on the course homepage and selecting "DE Support Request" from the drop-down menu. For technical assistance with campus Wi-Fi, COM user ID or password, and other campus related IT needs, visit COM helpdesk.

The **tutoring center** provides face-to-face and online tutoring sessions in a welcoming environment, and is open for students Monday through Saturday. It provides free tutoring services to students, staff, and faculty seeking assistance for writing, reading, and oral presentations for academic and non-academic assignments/projects. The center also provides free printing for students, and tutoring for science classes, including Microbiology. It is located in the Industrial Careers Building, room 109 (or ICB-109). To sign up for the online tutoring, click here or visit the link https://com.mywconline.com/.

Counselling Help:

If you have any challenges with mental health, depression, etc. do not hesitate to ask for help by calling 713-500-3852. For further information, see the **Resources to Help with Stress** below on the last page.

Student Learner Outcome (SLO)	Maps to Core Objective(s)	Assessed via this Assignment	
1. Describe distinctive characteristics and diverse growth requirements of prokaryotic organisms compared to eukaryotic organisms.	Critical Thinking (CT)	Lecture Quiz 1.	
2. Provide examples of the impact of microorganisms on agriculture, environment, ecosystem, energy, and human health, including biofilms.	Communication Skills (CS)	Mastering Assignment 2	
3. Distinguish between mechanisms of physical and chemical agents to control microbial populations.	СТ	Mastering Assignment 3. Lab Ex.19-22 – Control of m/os	
4. Explain the unique characteristics of bacterial metabolism and bacterial genetics.	Empirical & Quantitative Skills (EQS)	Exam 2	
5. Describe evidence for the evolution of cells, organelles, and major metabolic pathways from early prokaryotes and	CS	Mastering Assignment 5	

how phylogenetic trees reflect evolutionary relationships		
6. Compare characteristics and replication of acellular infectious agents (viruses and prions) with characteristics and reproduction of cellular infectious agents (prokaryotes and eukaryotes).	СТ	Lecture Quiz 5.
7. Describe functions of host defenses and the immune system in combating infectious diseases and explain how immunizations protect against specific diseases.	CS	Exam 3
8. Explain transmission and virulence mechanisms of cellular and acellular infectious agents.	CS	Lab assgts 9-10 (Ex. 27 & 30) Essay paper
9. Use and comply with laboratory safety rules, procedures, and universal precautions.	СТ	Laboratory Safety Assignment
10. Demonstrate proficient use of a compound light microscope.	СТ	Lab Assignment 1, Exercise 3 Lab practical 1
11. Describe and prepare widely used stains and wet mounts, and discuss their significance in identification of microorganisms.	CS	Lab assignment 1, Exercise 5 Lab practical 1
12. Perform basic microbiology procedures using aseptic techniques for transfer, isolation and observation of commonly encountered, clinically significant bacteria.	Teamwork (TW)	Lab Assignment 2, Exercises 6 & 7
13. Use different types of bacterial culture media to grow, isolate, and identify microorganisms.	TW CT	Lab assignment 4, Exercise 10 Unknown Lab Project (Ex. 35)
14. Perform basic bacterial identification procedures using biochemical tests.	TW	Lab assignment 10, Exercise 30 Unknown Lab Project (Ex. 35)
15. Estimate the number of microorganisms in a sample using methods such as direct counts, viable plate counts, or spectrophotometric measurements	EQS	Lab Assgt 3 (Ex. 8) – Counting Microbial Populations.
16. Demonstrate basic identification protocols based on microscopic morphology of some common fungi and parasites.	CT	Lab Assgt 8, Exercise 31 Lab practical 2.

Academic Dishonesty: Academic dishonesty is a violation of academic integrity and includes activities or behaviors such as cheating on tests, plagiarism (the practice of taking someone else's work or ideas and passing them off as one's own), and collusion (helping others cheat and/or plagiarize). Be aware that using AI/ChatGPT to write assignments and/or term papers is a form of cheating and is unacceptable. Disciplinary actions will be taken against any student or group of students who engages in any form of academic dishonesty or exhibits disorderly conduct during class or lab. The consequence of violating academic integrity may include one or more of a zero score for the test/assignment, an "F" grade in the course, and withdrawal from the class. The student may also be referred to the Vice President of Student Success and Conduct for further disciplinary action including dismissal from the college.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Prof. Abernathy, the Science Department Chair, at 409-933-8330 or sabernathy@com.edu.

Course outline (Tentative schedule):

WK	DATE	LECTURE (STE-342)	LABORATORY [†] STE-317	ASSIGNMENTS
1	1/14 - 1/20	Martin Luther King Day (1/15) Holiday Syllabus Quiz	Lab Safety & quiz Ex. 3 – Intro to Microscope Ex. 5 – Advanced Microscopy	Pre-Class Exercise Pre-lab quiz 1 Intro to Mastering
2	1/21 – 1/27	Ch 1 – The Microbial World & You Ch 3 – Observing Microorganisms	Ex. 1 – Contamination Lab Ex. 6 – Transfer Technique Ex. 18 – Medical Asepsis	Prelab quiz 2
3	1/28 – 2/03	Ch 4 – Functnl Anatomy of Prok. & Euk. Cells Ch 5 –Microbial Metabolism Quiz 1 (Chs. 1, 3, 4)	Review Ex. 1, 6, 18 plates Ex. 7 – Streak Plate Technique Ex. 8 – Counting Micro Populations	Ex. 1, 6, 18 results Mastering hwk 1
4	2/04 – 2/10	Ch 5 – Microbial Metabolism (cont.) Ch 27 – Environmental Microbiology	Review Ex. 7 & 8 plates Ex.9 – Simple Stain & Bacterial Morphology	Prelab quiz 3 Ex. 7 & 8 results
5	2/11 - 2/17	Ch 28 – Applied & Industrial Microbiology Ch 6 – Microbial Growth Quiz 2 (Chs. 5, 27, 28)	Ex. 10 – Gram Stain Ex. 11 – Capsule Stain	Prelab quiz 4 Mastering hwk 2
6	2/18 – 2/24	Exam 1 – Chs. 1, 3-5, 27, 28 Ch 6 – Microbial Growth Ch 7 – Control of Microbial Growth	Ex. 19 – 22 Control of Microorganisms Ex. 19: Moist & Dry heat; Ex. 20: UV Light Ex. 21: Disinfectants; Ex. 22: Antibiotics	Prelab quiz 5 Ex. 22 report
7	2/25 - 3/02	Ch 8 – Microbial Genetics Ch 9 – Biotechnology & DNA Technology Quiz 3 (Chs. 6, 7)	Review of Ex. 19-21 plates Ex. 12 – Spore stain Ex. 13 – Acid Fast stain	Prelab quiz 6 Ex. 19-21 results Mastering hw 3
8	3/03 - 3/09	Ch 10 – Classification of Microorganisms Ch 12 – The Eukaryotes; Quiz 4 (Chs. 8, 9) Ch 13 – Viruses, Viroids, & Prions	Lab Practical 1	Mastering hw 4
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3/10	0 - 3/16	SPRING BREAK	SPRING BREAK	
9	3/17 – 3/23	Ch 14 – Principles of Disease & Epidemiology Ch 15 – Microbial Mechanisms of Pathogenicity	Ex 31 – Parasitology	Prelab quiz 7 Mastering hw 5
	3/17 –	Ch 14 – Principles of Disease & Epidemiology	Ex 31 – Parasitology Ex. 14 Bacterial conjugation Ex. 33 Epidemiology	
9	3/17 – 3/23 3/24 –	Ch 14 – Principles of Disease & Epidemiology Ch 15 – Microbial Mechanisms of Pathogenicity Quiz 5 (Chs. 10, 12, 13) Ch 16 – Innate Immunity	Ex. 14 Bacterial conjugation	Mastering hw 5 Prelab quiz 8
9	3/17 - 3/23 3/24 - 3/30 3/31 -	Ch 14 – Principles of Disease & Epidemiology Ch 15 – Microbial Mechanisms of Pathogenicity Quiz 5 (Chs. 10, 12, 13) Ch 16 – Innate Immunity Exam 2 – Chs 6-10, 12, 13 Ch 17 – Adaptive Immunity	Ex. 31 – Parasitology Ex. 14 Bacterial conjugation Ex. 33 Epidemiology Review Ex. 14 plates Ex. 27 – Pathogenic Cocci	Mastering hw 5 Prelab quiz 8 Rabies Paper (EC) Ex. 14 report Prelab quiz 9
9 10 11	3/17 - 3/23 3/24 - 3/30 3/31 - 4/06 4/07 -	Ch 14 – Principles of Disease & Epidemiology Ch 15 – Microbial Mechanisms of Pathogenicity Quiz 5 (Chs. 10, 12, 13) Ch 16 – Innate Immunity Exam 2 – Chs 6-10, 12, 13 Ch 17 – Adaptive Immunity Quiz 6 (Chs.14, 15) Ch 18 – Practical Applications of Immunology Ch 19 – Disorders of Immune System Quiz 7 (Chs.16, 17) Ch 20 – Antimicrobial Drugs Ch 21 – Microbial Diseases of Skin & Eyes Quiz 8 (Chs.18, 19, 20)	Ex 31 – Parasitology Ex. 14 Bacterial conjugation Ex. 33 Epidemiology Review Ex. 14 plates Ex 27 – Pathogenic Cocci Ex 29 – Culture of Anaerobic Bacteria Review Ex 27 & 29 plates	Mastering hw 5 Prelab quiz 8 Rabies Paper (EC) Ex. 14 report Prelab quiz 9 Mastering hw 6 Prelab quiz 10 Ex. 27 & 29 reports
9 10 11 12	3/17 - 3/23 3/24 - 3/30 3/31 - 4/06 4/07 - 4/13	Ch 14 – Principles of Disease & Epidemiology Ch 15 – Microbial Mechanisms of Pathogenicity Quiz 5 (Chs. 10, 12, 13) Ch 16 – Innate Immunity Exam 2 – Chs 6-10, 12, 13 Ch 17 – Adaptive Immunity Quiz 6 (Chs.14, 15) Ch 18 – Practical Applications of Immunology Ch 19 – Disorders of Immune System Quiz 7 (Chs.16, 17) Ch 20 – Antimicrobial Drugs Ch 21 – Microbial Diseases of Skin & Eyes	Ex 31 – Parasitology Ex. 14 Bacterial conjugation Ex. 33 Epidemiology Review Ex. 14 plates Ex 27 – Pathogenic Cocci Ex 29 – Culture of Anaerobic Bacteria Review Ex 27 & 29 plates Ex 30 – Enteric Bacteria Review Ex. 30 plates & results Ex. 35 – Unknown Project: Dichotomous Key (Mon); Gram Stain & Inoculate Biochemical Tests (Wed) Ex. 35 – Unknown Project: Evaluate Biochemical Tests & Identify Unknown (Monday)	Mastering hw 5 Prelab quiz 8 Rabies Paper (EC) Ex. 14 report Prelab quiz 9 Mastering hw 6 Prelab quiz 10 Ex.27 & 29 reports Mastering hw 7 Ex. 30 report Dichotomous Key
9 10 11 12 13	3/17 - 3/23 3/24 - 3/30 3/31 - 4/06 4/07 - 4/13 4/14 - 4/20 4/21 - 4/27	Ch 14 – Principles of Disease & Epidemiology Ch 15 – Microbial Mechanisms of Pathogenicity Quiz 5 (Chs. 10, 12, 13) Ch 16 – Innate Immunity Exam 2 – Chs 6-10, 12, 13 Ch 17 – Adaptive Immunity Quiz 6 (Chs.14, 15) Ch 18 – Practical Applications of Immunology Ch 19 – Disorders of Immune System Quiz 7 (Chs.16, 17) Ch 20 – Antimicrobial Drugs Ch 21 – Microbial Diseases of Skin & Eyes Quiz 8 (Chs.18, 19, 20) Exam 3 – Chs. 14-20) Ch 22 – Microbial Diseases of Nervous System Ch 23 – Microbial Diseases of the Cardiovascular	Ex 31 – Parasitology Ex. 14 Bacterial conjugation Ex. 33 Epidemiology Review Ex. 14 plates Ex 27 – Pathogenic Cocci Ex 29 – Culture of Anaerobic Bacteria Review Ex 27 & 29 plates Ex 30 – Enteric Bacteria Review Ex. 30 plates & results Ex. 35 – Unknown Project: Dichotomous Key (Mon); Gram Stain & Inoculate Biochemical Tests (Wed) Ex. 35 – Unknown Project: Evaluate Biochemical Tests &	Mastering hw 5 Prelab quiz 8 Rabies Paper (EC) Ex. 14 report Prelab quiz 9 Mastering hw 6 Prelab quiz 10 Ex.27 & 29 reports Mastering hw 7 Ex. 30 report Dichotomous Key Mastering hw 8 Ex.35 report

^{*}W-Day (Mon, April 22nd) – Last day to withdraw from class w/o an F.

† For most of the labs, you need to complete a pre-lab quiz before coming to the lab; you may hurt your lab grade if you do not. The lab report (Results & Discussion) for each lab is due at the completion of that particular lab.

<u>NB</u>: The due dates for assessments on this schedule may not be exact. They are provisional and, therefore, subject to change. Follow the due dates on D2L <u>Calendar</u> and <u>Announcements</u>.

Syllabus Disclaimer: Course policies and schedule are subject to change. Any changes will be posted/uploaded in the D2L. It is the student's responsibility to check the D2L for amendments or updates to the syllabus.

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook https://www.com.edu/student-services/docs/Student Handbook 2023-2024 v2.pdf. An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Kimberly Lachney at 409-933-8919 or klachney@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is February 28. The last date to withdraw from the 16-week session is April 22. The last date to withdraw for the 2nd 8-week session is May 1. The last date to withdraw for spring mini session is May 29.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here https://www.com.edu/community-resource-center/. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.