The University of Georgia-Griffin Campus MIBO 3510L (CRN 58467) Introductory Microbiology Laboratory, 4 credit hours Spring Semester 2021

8:45 –12:00 AM Tues/Thurs, Room 255-Redding

Instructor: Dr. Margie M. Paz

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Office Hours: 2:30 – 3:30 PM Mon/Wed. Please e-mail me, so a meeting can be set up. To comply with the Family Educational Rights and Privacy Act (FERPA), all communication must be through a secure medium (UGAMail or eLC). Instructors are not allowed to respond to messages that refer to individual students or student progress in the course through non-UGA accounts.

Course Overview

The course is designed to introduce the students to the basic principles of laboratory techniques as they apply to microbiology. The course syllabus is a general plan for the course; changes may be necessary and will be announced to the class by the instructor.

Prerequisite or Corequisite: MIBO 3500 or MIBO 3500E

Textbook: Applications in General Microbiology: A Laboratory Manual (Revised 6th edition), Thomas J. Kerr and Barbara B. McHale.

* There are some lab exercises that are not in the lab manual. Please check the *e*LC course page for e-handouts.

Attendance:

Punctual attendance in the lab is required. Arrive on time and avoid leaving early. If you must miss a lab period, it is your responsibility to <u>arrange to make up the class in the same week</u>. You will be responsible for all content and instructions given during the lab and announcements made in class (including on days when you miss a class). Medical/professional school interviews will be counted as excused absences only if Dr. Paz is contacted prior to the absence. **Please turn off all cell phones and pagers**. Ringing not only distracts the class, but also poses a safety hazard if a student is startled when working with a Bacti-Cinerator or with chemicals.

e-LearningCommons (*e*LC):

All students are expected to attend all labs and take good notes. Outlines of lectures will be available on the web via eLC to simplify note-taking. However, the lecture notes on the eLC course page should not be regarded as a substitute for coming to class. Having my slides with you in class will make note-taking much easier, but additional material and examples are given in class. Each lab will be easier for you to understand if the experiment we will be doing is read prior to class. You should be prepared to take notes on blank sheets of paper (or slide handout) at any time.

Grading:

Your grade will be based on a midterm exam and a comprehensive final exam, case studies, class presentations/discussions, assignments/quizzes, and lab notebook assessment. All due dates and times are final – journal article summaries, class presentations/discussions, assignments/quizzes, lab notebook assessment, or exams turned in after due date/time will be scored a zero. A make-up lab exam will only be given when a student cannot take the exam at the scheduled time and has a documented excuse for this absence. The make-up exam will be different from the one given at the scheduled time and may include an oral or an essay exam and will cover any previous class material, without regard to particular study guides that may have been given. A WRITTEN EXCUSE is REQUIRED for all make-up exams. In the case of severe illness or family emergency, you must inform and email the instructor prior to the exam. In addition, present/show documentation from a medical facility that indicates you could not take the exam on the date in question. An unexcused absence will result in a grade of zero. An absence will be counted as unexcused if the instructor is not notified before the exam is given. If you believe there has been a grading error on your exam, questions about grading must be submitted in writing within one week of the return of the exam. To request a regrade, email the instructor a Word or pdf document that gives the question number and the answer with supporting evidence from the lab manual or lecture notes that proves your answer is correct. Be sure to include the exam number and your name in the file name.

Grade Distribution:

Midterm exam (practical and written)	125 pts
Final exam (comprehensive, practical and written)	125 pts
Lab lecture quizzes	50 pts
In-Class Activities/Case Studies	50 pts
Journal article presentation	25pts
Homework/lab notebook assessments	25 pts
Unknown laboratory report and flow chart	50 pts
Total points possible	450 pts

Grading Scale: The letter grade will be determined according to the scale shown below. **A** 93 to 100%, **A**-90 to 92%, **B**+87 to 89%, **B** 83 to 86%, **B**-80 to 82%, **C**+77 to 79%,

C 73 to 76%, **C-** 70 to 72%, **D** 60-69%, **F** below 60

Laboratory Safety/Techniques:

You will be given a list of lab safety rules that you are expected to read and follow. You will also be taught proper laboratory techniques that are to be used in the lab. If you fail to follow these rules and techniques during the semester, points will be deducted from your quiz average at a rate of 1 point per incidence. The first incidence will result in a warning and reminder of proper procedures. After that, points will be deducted for each subsequent occurrence. You will be notified at the time of the occurrence.

Academic Honesty: As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" at www.uga.edu/honesty. Students are responsible for informing themselves about those standards before performing any academic work.

Mental Health and Wellness Resources:

If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit https://sco.uga.edu. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.

- UGA has several resources for a student seeking mental health services (https://www.uhs.uga.edu/bewelluga/bewelluga) or crisis support (https://www.uhs.uga.edu/info/emergencies).
- If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (https://www.uhs.uga.edu/bewelluga/bewelluga) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.
- Additional resources can be accessed through the UGA App.

UGA Griffin Campus Specific Resources

Mental Health and Wellness Resources:

- If you or someone you know needs assistance, you are encouraged to contact Student Affairs at 770-412-4096. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
- UGA Griffin Campus Counseling Services serves as a resource for a student seeking mental health services, and can be contacted at 706-612-8792 or via email at griffincounseling@uga.edu.
 - O Students can schedule an appointment, here: https://bit.ly/3dAWO9d
- If you need help managing stress anxiety, relationships, etc., you can also contact BeWellUGA (https://www.uhs.uga.edu/bewelluga/bewelluga) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.

Documented Disability Statement for Griffin Campus: If you are a student with a documented disability, you must inform the instructor of this fact at the close of the first class meeting. You will be referred to the Office of Student Affairs in Room 105, Flynt Building, 770-412-4096, for consultation regarding evaluation, documentation of your disability, and a recommendation as to the accommodation to be provided.

Coronavirus Information for Students

Face Coverings:

Effective July 15, 2020, the University of Georgia—along with all University System of Georgia (USG) institutions—requires all faculty, staff, students and visitors to wear an appropriate face covering while inside campus facilities/buildings where six feet social distancing may not always be possible. Face covering use is in addition to and is not a substitute for social distancing. Anyone not using a face covering when required will be asked to wear one or must leave the area. Reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons. Students seeking an accommodation related to face coverings should contact Disability Services at https://drc.uga.edu/.

DawgCheck:

Please perform a quick symptom check each weekday on DawgCheck—on the UGA app or website—whether you feel sick or not. It will help health providers monitor the health situation on campus: https://dawgcheck.uga.edu/

What do I do if I am notified that I have been exposed?

Effective January 4, 2021, students who learn they have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for 10 days consistent with the updated Department of Public Health (DPH) and Centers for Disease Control and Prevention (CDC) guidelines. Please correspond with your instructor via email, with a cc: to Student Care & Outreach at sco@uga.edu, to coordinate continuing your coursework while self-quarantined. If you develop symptoms, you should contact the University Health Center to make an appointment to be tested. You should continue to monitor your symptoms daily on DawgCheck.

We strongly encourage students to voluntarily take a COVID-19 test within 48 hours of the end of the 10-day quarantine period (test to be administered between days 8 and 10).

If the test is negative, the individual may return to campus, but MUST continue to closely monitor for any new COVID-19 symptoms through 14 days. DawgCheck is the best method for monitoring these symptoms. If new symptoms occur, the individual must not come to campus and must seek further testing/evaluation.

If the test is positive at the end of the 10-day period, the individual must begin a 10-day isolation period from the date of the test.

What do I do if I test positive?

Any student with a positive COVID-19 test is <u>required</u> to report the test in <u>DawgCheck</u> and should self-isolate immediately. Students should not attend classes in-person until the isolation period is completed. Once you report the positive test through DawgCheck, UGA Student Care and Outreach will follow up with you.



Clean your hands often.



Avoid touching your eyes, nose and mouth.



Stay at home if you are sick.



Wear a cloth face covering to help slow the spread of COVID-19.



Clean and disinfect frequently touched surfaces daily.

STUDENTS: If you need healthcare assistance, the following community partner can help:
McIntosh Family Practice/McMed Urgent Care
726 S 8th St., Griffin, GA 30224 I 770-450-8878.

ALL OTHERS: Consult your community healthcare provider.

For UGA updates and prevention, visit www.uga.edu/coronavirus.



Approximate schedule of labs for Spring 2021 (Face-to-Face Instruction)

Date	Chapter (Students are expected to read the assigned lab exercises prior to attending lab.)
Weeks 1-2	Safety Overview
	1 Introduction to microscopy, Phase-contrast microscopy
	10 Higher microorganisms, Bacteria in the environment
	Fungal tape mounts- HO Slide preparation and staining techniques
	6, 7 Simple staining, Gram staining
	8, 7 Special staining, Differential staining
Weeks 3-4	5, 13: Dilutions, Bacterial Enumeration
	4 Isolation of pure cultures; 9 Bacterial motility
	11, 12: Oxygen requirements, Cultural requirements & Nutrition
	22: Effects of Temperature
Weeks 5-6	23, 24: Effects of Osmotic Pressure and pH, Effects of UV light
	15: Selective & Differential Media
	16, 17: Extracellular and Intracellular Enzymes
	18, 19: Carbohydrate utilization and IMViC tests
Weeks 7-8	20: Biochemical reactions, Enterotubes
	Begin Identification of Unknowns
Thu, Feb 25	Exam 1 (practical and written)
Weeks 9-10	31: Soil Microbiology
	38: Examination of water
	Unknowns
	Unknowns Flow Charts DUE
Weeks 11-12	54: Induced mutation & Replica plating techniques
	55, 56: Bacterial Transformation-HO; Bacteriophage Assay-HO
	Unknowns
April 8	No Class – UGA Instructional break
Weeks 13-14	50, 51 Skin, respiratory flora
	27, 25 Antibiotics, Susceptibility testing and antiseptics/disinfectants
	Unknowns
April 22	Exam 2 (comprehensive, practical and written)
Weeks 15	Food Microbiology; Yogurt Lab
	Unknowns
Mon, May 3	UNKNOWNs reports due by 5:00 pm (If you turn in your report at any time after 5:00
	pm, it will lose 10% of the possible point value. Late reports will lose additional 10% for every day late.)