

Introductory Microbiology
MIBO 3500E Spring 2021
Section #56770
Section #57008 (Majors)

INSTRUCTOR:

Instructor	Dr. Francine Scott	Phone	(706) 542-0947
Office	327B Biological Sciences	E-mail	francine.scott@uga.edu
Email	Will respond to email within 24hrs Mon-Fri	Credit	3 HOURS
Hours	*or by appointment on Zoom	Hours	

TEACHING ASSISTANT:

Teaching Assistant	Lauren Essler	E-mail	lauren.essler25@uga.edu
Email	Will respond to email within 24hrs Mon-Fri		
Hours	*or by appointment on Zoom		

COURSE DESCRIPTION:

MIBO 3500E provides an introduction to microorganisms with a special emphasis on bacteria, their structure, function, diversity, and importance to man.

Pre or Corequisite: (CHEM 221I or CHEM 231IH or CHEM 241I) and (CHEM 221IL or CHEM 231IL or CHEM 241IL) and BIOL 1107 or BIOL 1107E or BIOL 2107H

Not open to students with credit in MIBO 3500

This course will be 95% or more online

TEXTBOOK (REQUIRED):

Microbiology An Evolving Science, 4th edition. 2017 Slonczewski and Foster. W.W. Norton and Company. ISBN9780393602340

TECHNOLOGY (REQUIRED):

Students must have reliable internet connection that meets Georgia VIEW virtual instruction standards. To check your computer, visit: <http://go.view.usg.edu/d21/login> then click "Perform a System Check." Computer should have functional webcam and microphone for Respondus Monitor (see Academic Integrity).

METHODS OF INSTRUCTION:

Course will be taught in online format(asynchronous). Optional synchronous Zoom discussions may be offered. Section #57008 is restricted to MIBO Majors: Majors section will review certain topics in more detail as necessary for students pursuing microbiology as a major field of study.

EMAIL POLICY:

The course TA will be the primary email contact. Students should address all course questions first to the TA. However, concerns regarding disability accommodations or problems accessing quizzes and exams should first be directed to Dr. Scott. All emails will receive a response within 24 hours Mon-Fri.

POLICY ON GRADED WORK:

Graded assignments must be completed by 11:30pm Eastern Standard Time on the indicated due date. All assignments not completed by this time will be recorded as a zero. Students who have a legitimate and documented excuse for missing an assignment (illness, family emergency, etc.) should email the documentation to Dr. Scott as soon as possible to discuss a timeline for making up the missed assignments. *Flexibility with documentation will be granted as necessary.*

STUDENTS WITH DISABILITIES:

Students with disabilities who believe that they need accommodations in this course are encouraged to contact the Disabilities Resource Center as soon as possible to ensure such accommodations are implemented in a timely fashion.

Disability Resource Center: 114 Clark Howell Hall
(voice) (706) 542-8719
(fax) (706) 542-7719
(tty) (706) 542-8778

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.

GRADING SCALE AND EVALUATION:

Quizzes:

There will be 5 quizzes each worth 10 points. Quizzes consist of 10 multiple choice/true-false questions worth 1 pt each. Quizzes are timed at 10 minutes. Each quiz may be attempted twice with the higher of the two scores being recorded in the gradebook. *Questions come from a question bank so exact combination of questions on a second attempt may not be the same as first attempt.* Quizzes will open no later than the beginning of each module and are due Saturday 11:30pm of the indicated week.. All quizzes are closed note. The lowest quiz score will be dropped.

Research Highlights:

Students will read and answer questions on relevant literature. There will be 5 of these assignments each worth 40 points. The lowest of these scores will be dropped. Research highlights are due at 11:30pm Saturday of the indicated week. Research Highlights for section #57008 will cover certain topics in more detail as necessary for students pursuing microbiology as a major field of study.

Exams (on eLC listed under “quizzes”):

There will be 4 module exams and 1 cumulative final exam. Each exam is worth 100 points. Module exams are timed at 90 minutes, final exam is timed at 3 hours. Module exams will open at 8am on the day before due date. Final exam will open on 8am on the day of the due date. All exams have the same format: 30 multiple choice/true- false questions worth 2.5 pts each and 5 written response questions worth 5 points each. There is only one attempt for each exam. All exams are closed note. The lowest exam score will be dropped. Therefore; if a student is satisfied with their grade, they may choose not to take the final exam.

Written Response Sentence Limit: In order to provide timely grade feedback, Exam and Research Highlight answers will be limited to **1 paragraph (4 sentences) or less per question**. Answers that do not fit this structural criteria will be evaluated at half credit. If indicated on assignment, some questions may have a limit of less than 4 sentences.

Packback Curiosity Questions:

Students will post curiosity questions and respond to at least two questions from their peers on the indicated weeks (with a due time of 11:30pm). There will be 10 of these assignments each worth 5 points. Packback questions are due on Tuesdays and responses due that Friday. No Packback scores will be dropped. Material from questions/responses highlighted in the course may be included on quizzes and exams.

Students will start the course with full credit for Packback participation. Failure to upload a unique question and/or responses will result in that full assignment points being deducted. That is; if any portion of the assignment is incomplete or late the score for that entire assignment will be 0/5points. Restating another students question/response will also result in the full assignment points being deducted.

Points possible:

Highest 4 Exam scores at 100 pts. each	= 400 pts
Highest 4 Research Highlight scores at 40 pts. each	= 160 pts
Packback Participation 10 at 5 points each week	= 50 pts
<u>Highest 4 Quiz scores at 10 pts. each</u>	<u>= 40 pts</u>
TOTAL POSSIBLE	650 pts

Letter Grades:

A = 93.0 - 100%	A- = 90.0 -92.9%	B+ = 87.0-89.9%	
B = 83.0-86.9%	B- = 80.0-82.9%	C+ = 77.0-79.9%	
C = 73.0-76.9%	C- = 70.0-72.9%	D = 50.01-69.9%	F = ≤ 50%

*Letter grades will not be rounded

Description of Letter Grades: <http://www.reg.uga.edu/grades>

Grade	Points	Description
A	4.0	Excellent
A-	3.7	Excellent
B+	3.3	Good
B	3.0	Good
B-	2.7	Good
C+	2.3	Satisfactory
C	2.0	Satisfactory
C-	1.7	Satisfactory C- will not satisfy requirements that require a C (2.0) or better
D	1.0	Passing
F	0.0	Failure

Extra Credit: The decision to offer extra credit is at the discretion of course instructor. If extra credit is offered any opportunity to earn extra points will be fairly offered to all students in the course. Individual requests for extra credit and requests for extra credit after final day of instruction will not be considered.

Late Policy: Any assignment not received when it is due will be recorded as a zero (with exceptions for makeup work approved by TA or Dr. Scott).

Regrade Policy: Any student may submit a request for a regrade of an assignment within one week of assignment being available for review. Regrade request forms will be available on eLC for students to download.

LETTERS OF RECOMMENDATION:

Strong letters of recommendation come from referring students who we know well. Students who are considering requesting letters of recommendation should meet (on Zoom) regularly with Dr. Scott and their TA throughout the entire semester or in the several months preceding a letter request. Decisions on letters of recommendation take into consideration a student's overall course grade, how well we know the student, and number of students requesting letters.

ACADEMIC INTEGRITY:

Excerpt from A Culture of Honesty: "No student shall perform, attempt to perform, or assist another in performing any act of dishonesty on academic work to be submitted for academic credit or advancement. A student does not have to intend to violate the honesty policy to be found in violation. For example, plagiarism, intended or unintended, is a violation of this policy" Additionally, students must agree that "I will be academically honest in all of my academic work and will not tolerate the dishonest of others."

A complete description of academic dishonesty may be found at <http://www.uga.edu/honesty> and in the student honor code. If a student is found in violation of the academic integrity policy the University's policy and procedures for handling cases of suspected dishonesty can be found at <http://www.uga.edu/ovpi>

Respondus Monitor will be required for all Quizzes and Exams. Respondus monitor requires a functional webcam and microphone. Information about respondus monitor can be found at the following link:

https://help.elc.uga.edu/students/respondus_monitor/

CORONAVIRUS: Document outlining UGA Coronavirus information is provided in eLC.

FINAL EXAMINATION (ONLINE):

Cumulative final exam is scheduled for **Wed May 5, 2021**.

****This syllabus is intended as an outline for the course. Some deviations may be necessary. If any changes occur students will be notified immediately.**

SCHEDULE

Unless otherwise noted: Quizzes, Research Highlights, and Exam Due Dates are 11:30pm Saturday of the indicated week.

Module 0: Course Introduction			
Calendar Week	Readings	Lectures/Videos	Assignments
Jan 10-16 (Jan 13 first day of classes)	Syllabus and Packback	Instructor and TA Introductions	Academic Honesty Signature
Module 1: History of Microbiology and Bacterial Structure and Growth			
Jan 17-23 (Jan 18 MLK Jr Holiday)	1.1-1.4 2.1-2.6 3.1, 3.2, 3.4 3.3	History of Microbiology Microscopic Observation Bacterial Structure Bacterial Cell Walls	Quiz 1 Packback 1
Jan 24-30	4.1, 4.3 4.4 4.5 Research Highlight 1	Bacterial Culture Bacterial Growth Biofilms	Research Highlight 1 Packback 2
Jan 31-Feb 6	5.2-5.5 5.7	Environmental Influences Control of Growth	Exam 1

Module 2: Energetics and Genetics

Calendar Week	Readings	Lectures/Videos	Assignments
Feb 7-13	13.4 13.5-13.6 14.4-14.6	Catabolism and Anabolism Catabolism of Glucose Electron Flow	Quiz 2 Packback 3
Feb 14-20 (Feb 17 Instruction Break)	7.1-7.3 7.6 7.6 Research Highlight 2	Genomes and Chromosomes Plasmids Metagenomics	Research Highlight 2 Packback 4
Feb 21-27	9.1 9.3-9.4 10.1, 10.2, 10.5	Horizontal Gene Transfer Gene Mutation and Repair Molecular regulation	Exam 2

Module 3: Diversity of Microorganisms

Feb 28-Mar 6	18.1-18.2 18.3 27.1-27.2	Bacterial Diversity (Gram Negative) Bacterial Diversity (Gram Positive) Antibacterial Therapy	Quiz 3 Packback 5
Mar 7-13 (Mar 12 Instruction Break)	19.1 20.1, 20.2, 20.4 6.2 Research Highlight 3	Archaeal Diversity Eukaryotic Diversity Virus Structure	Research Highlight 3 Packback 6
Mar 14-20	6.3 6.5 27.4	Viral Diversity (Prokaryotic) Viral Diversity (Eukaryotic) Antiviral Therapy	Exam 3

Module 4: Microbial Ecology and Immunology

Calendar Week	Readings	Lectures/Videos	Assignments
Mar 21-27	21.3 21.5	Microbial Ecology and Symbiosis Microbial Ecology in Marine Ecosystems	Quiz 4 Packback 7
Mar 28- Apr 3	16.3 16.5 23.1-23.5 Research Highlight 4	Food and Industrial Usage of Microbes Foodborne Illness Innate Immunity	Research Highlight 4 Packback 8
Apr 4-10 (Apr 8 Instruction Break)	24.1, 24.3 25.1	Adaptive Immunity Infectivity & Virulence	Exam 4

Module 5: Microbial Diseases

Apr 11-17	25.1, 25.3 26.3 26.7	Microbial Invasion Bacterial Diseases (Respiratory) Bacterial Diseases (Nervous)	Quiz 5 Packback 9
Apr 18-24	N/A N/A 26.2	Viral Diseases (Respiratory) Viral Diseases (Nervous) Fungal Diseases (Skin)	Research Highlight 5 Packback 10
Apr 25- May 1	26.3 26.4 6.5	Fungal Diseases (Respiratory) Microbes and Cancer (Bacterial) Microbes and Cancer (Viral)	
May 2-8		Final Exam Review	Final Exam (May 5)