University of Georgia

MIBO 3500 - INTRODUCTORY to MICROBIOLOGY (3 credit hours)

Spring Semester 2020

Griffin Campus (Room 116 SLC) and Tifton Campus

10:30 am - 11:45 am MW

Instructor: Dr. Patricia Swift
678-633-2852

Office Hours: 11:45 – 1:45 PM M and 9:30 – 10:30 AM W on 2nd floor SLC (?) or by appointment. If these times do not meet student needs, office hours will be adjusted as needed. Please see, text, call, or email me via eLC to set up a time and a place for a meeting AND so I can be prepared with the materials that we may need. If no advance arrangement has been made, I will be available on the 2nd floor of the Learning Center.

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Course Overview: The course is designed to introduce the students to the study of microorganisms with emphasis on bacteria, their structure, function, diversity, and importance to man. Students will be introduced to basic concepts of microbial physiology, ecology, genetics, and symbiosis. The syllabus is a general plan for the course; changes may be necessary and will be announced to the class by the instructor.

Pre or Co-requisite: BCMB (BIOL) (CHEM) 3100 or BCMB 4020/6020
Textbook: Microbiology, An Evolving Science, 4th edition by Slonczewski and Foster. W. W. Norton & Company. ISBN 978-0-393-615098

Attendance: Students are expected to attend all lectures and to take notes. The PowerPoints for all chapters are available on eLC along with chapter study guides. The Powerpoints should be printed and brought to class, Having the PowerPoint slides with you in class will make taking notes easier, but additional material and examples may be given in class. You will be responsible for all content and instructions given during the lecture and announcements made in class. **Please turn off all cell phones and pagers.**

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eLearningCommons (eLC): We will be using eLC throughout the semester. Class materials including the syllabus, Powerpoint slides of chapter content, course announcements, etc. will be posted on the eLC course site. Students are responsible for printing their own copies of class materials, and should do so in advance of needing them. Having a problem downloading and printing a paper is usually not a good reason to be unprepared for class. To get to the course page, go to https://uga.view.usg.edu. Logon with your UGA MyID.

Exams: There will be 4 exams and possibly a comprehensive final exam given during the semester. Study guides will be provided for each chapter to help you prepare. You may enquire about material on the study guide at the end of any class or during office hours. There will be **no make-up exams given** unless there is an extreme circumstance that can be properly documented. **Special arrangements must be made in advance and in writing** if a pressing obligation prevents you from taking one of the exams . If for some reason you must miss an exam, your score will be

recorded as a zero and you will be required to take the comprehensive final exam.

If you believe there have been grading errors on your exam, questions about exam grading must be submitted in writing within one week of the return of the exam.

Grades. Your semester grade may be computed in either of two ways. If you have taken all four exams during the semester and are happy with your grade, you may use the final exam as your dropped grade.

4 exam grades (100 pts each)	**400 points**
3 short reports or one paper	**150 points**
No final exam	**0 points**
Total	**550 points**

If you have missed an exam or wish to drop one exam grade, then you may have your grade computed as follows:

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4 Exam Grades (100 pts each)	
Drop lowest or missed exam	**300 points**
Final exam	**150 points**
3 short reports or one paper	**150 points**
Total	**600 points**

You may not take the final exam and then decide to have your grade determined by the first method.

The letter grade will be determined according to the scale shown below.
A: 89.5 to 100%; B: 79.5 – 89.4%: C: 69.5 – 79.4%; D: 59.5 – 69.4; and F: below 59.5.

Honor Code: All academic work must meet the standards contained in " A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work. The policy can be found at www.uga.edu/honesty. Accessing note cards and/or ANY use of cell phones or other electronic devices during exams or quizzes are automatic violations.

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 Academic Programs in Room 105 in the Flynt Building for consultation regarding evaluation, documentation of your disability, and a recommendation as to the accommodation, if any, to be provided.

Reports: Please speak to the instructor and get approval of your report/s topic/s.
The long report topic will be chosen in consultation with the instructor. The three short reports will be on the following areas: Report 1. Microbial Enzymes and their application in scientific methods ; Report 2. Application/s of Extremophile Metabolism in environmental science; and Report 3. Medical Case Study – use two infectious diseases and discuss the virulence factors that affect the clinical presentations of each.

MIBO 3500 Schedule Spring 2020

This schedule is tentative and adjustments may need to be made. The sequence of chapters and topics will be followed even if the time flow varies. You should always read ahead one chapter to be prepared for the lecture. Adequate notice of any changes will be given.

Week	Date	Chapter	Topic
1	Jan 8	Ch.1	Microbial life
2	Jan 13 Jan 15	Ch.2 Ch.3	Microbial cell Cell structure and function
3	Jan 20 Jan 22	MLK Chs. 4 and 5	 Bacterial growth
4	Jan 27 Jan 29	Ch. 7 Ch. 8	Genomes, chromosomes Transcription, translations, bioinformatics
5	Feb 3 Feb 5	Ch. 9 Ch. 10	Exam 1 Gene transfer, mutations Short report 1 due Molecular regulation
6	Feb 10 Feb 12	Ch. 13 Ch. 14	Energetics and catabolism Organotrophy, lithotrophy, and phototrophy
7	Feb 17 Feb 19	Ch. 15 Ch. 17; Chs. 6 and 11	Biosynthesis Origins and evolution; viruses
8	Feb 24 Feb 26 Feb 28	 Midterm	Finish assigned chapters Exam 2
9	Mar 2 Mar 4	Ch. 18 Ch. 19	Bacterial diversity Archaeal diversity Short report 2 due
10	Mar 9-13		SPRING BREAK
11	Mar 16 Mar 18 Mar 20	Ch. 20 Chs. 21 and 22 Last day to drop	Eukaryotic diversity Microbial ecology and elemental cycles
12	Mar 23 Mar 25	Ch. 23 Ch . 24	Innate immunity Adaptive immune response
13	Mar 30 Apr 1		Exam 3 Finish immunity Short report 3 due or long paper due
14	Apr 6 Apr 8	Ch. 25	Microbial pathogenesis Diseases caused by viruses
15	Apr 13 Apr 15		Diseases caused by bacteria Diseases caused by eukaryal microbes
16	Apr 20 Apr 22	Ch. 27	Antimicrobial therapy Exam 4
17	Apr 27	Ch. 28 Last class day	Clinical microbiology and epidemiology
	Mon., May 4		Final Exam (8 – 11 AM)