GENERAL MICROBIOLOGY MCB 3020 SYLLABUS Fall 2018

Professor: Niclas Engene Office: OE 226
Lecture: Mo/We 11:00-12:15
Office hours: 12:15-1:45 Mo/We and by appointment

Text: Madigan/Bender - Brock Biology of Microorganisms, 15/e
Modified MasteringMicrobiology

Date	Subject	Chapter (section)
Aug 20	Introduction to Microbiology	1 (1.1-1.14)
Aug 22	Prokaryotic cells	2 (2.1-2.13)
Aug 27	Eukaryotic cells	2 (2.14-2.16)
Aug 29	Microbial metabolism	3 (3.3-3.15)
Sep 3	**Labor Day Holiday (No Class)**	
Sep 5	Genes and DNA replication	4 (4.1-4.6)
Sep 10	Gene expression and protein synthesis	4 (4.7-4.13)
Sep 12	Microbial growth	5 (5.5-5.8)
Sep 17	**First Midterm Examination**	
Sep 19	Microbial Systems Biology	9 (9.1-9.14)
Sep 24	Metabolic regulation	6 (6.1-6.15)
Sep 26	Virology	8 (8.1-8.8)
Oct 1	Genetics	11 (11.1-11.12)
Oct 3	Genetic engineering and biotechnology	12 (12.1-12.13)
Oct 8	**Second Midterm Examination**	
Oct 10	Evolution and molecular systematics	13 (13.1-13.10)
Oct 15	Methods in microbial ecology	19 (19.1-19.11)
Oct 17	Environmental microbiology	20 (20.1 – 20.13)
Oct 22	Nutrient cycles	21 (21.1-21.8)
Oct 24	Industrial microbiology	22 (22.1-22.12)
Oct 29	Microbial symbiosis with plants and animals	23 (23.1-23.13)
Oct 31	**Third Midterm Examination**	
Nov 5	Microbe – human interactions	24 (24.1-24.11)
Nov 7	Pathogenicity and toxins	25 (25.1-25.8)

Nov 12	**Veterans' Day Holiday (No Class)**	
Nov 14	Diagnostic microbiology	28 (28.1 -28.8)
Nov 19	Antibiotics and antibiotics resistance	28 (28.10 – 28.12)
Nov 21	Bacterial and viral pathogens	30 (30.1 – 30.15)
Nov 26	Animal transmitted diseases	33 (33.1 – 33.9)
Nov 26	Waterborne and foodborne diseases	
Dec 5	**Final Examination (TBA)**	

Grading policy: your final grade will be based on the average of the four exams (each counts equally) except for those in PLTL and for users of iClickers and MasteringMicrobiology. PLTL grade will count for 10% of your final grade, MasteringMicrobiology 10%, iClickers 5%, and your exam average 75%. These are counted individually, and you have the option to chose all three options or as many as you prefer. Note: your PLTL, iClickers, and mastering grades can only help you, not hurt you, and will only be included if they are higher than and increase your exam grades. The midterms and the final will be on the detailed material covered in the lectures. **There is no extra credit.**

Grading scale

A	90 - 100%
B+	88 - 89
B	83 - 87
B-	80 - 82
C+	78 - 79
C	70 - 77
D+	68 - 69
D	63 - 67
D-	60 - 62
F	59 or below

Makeup exams: **Makeup exams will only be given with permission from the instructor.**

Academic Misconduct - **Academic Misconduct includes stealing exams, selling exams, buying exams, copying or trading answers during exams, and any other form of cheating. The following is FIU policy:** "Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible

for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook."

Course description: **Introduction to the study of microorganisms including cell structure/function, physiology, diversity, ecology and pathogenicity.**

Course objectives: **To impart knowledge of the biology of microorganisms and major disciplines within the field of microbiology.**

Learning outcomes: **To gain an understanding of the field of microbiology and the roles microorganisms play in the environment, health, and disease.**