

GENERAL MICROBIOLOGY MCB 3020**SYLLABUS****Spring 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)
Jan 8	Introduction to Microbiology	1 (1.1-1.5; 1.10)
Jan 10	Prokaryotic cells	2 (2.1 – 2.19)
Jan 15	Martin Luther King Day Holiday	
Jan 17	Eukaryotic cells	2 (2.1 – 2.19)
Jan 22	Metabolism	3 (3.3 – 3.17)
Jan 24	Genes and DNA replication	4 (4.1 – 4.6)
Jan 29	Gene expression and protein synthesis	4 (4.7 – 4.14)
Jan 31	Microbial growth	5 (5.5 – 5.10)
Feb 5	First Midterm Examination	
Feb 7	Genomics	9 (9.1 -9.13)
Feb 12	Metabolic regulation	6 (6.1 – 6.19)
Feb 14	Virology	8 (8.1 – 8.11)
Feb 19	Genetics	11 (11.1 – 11.12)
Feb 21	Genetic engineering and biotechnology	12 (12.1 – 12.17)
Feb 26	Evolution and molecular systematics	13 (13.1 – 13.10)
Feb 28	Second Midterm Examination	
Mar 5	Nutrient cycles	20 (20.1 -20.8)
Mar 7	Industrial microbiology	22 (22.1 – 22.5)
Mar 12 – 16	Spring Break	
Mar 19	Methods in microbial ecology	19 (19.1-19.11)
Mar 21	Environmental microbiology	20 (20.1 – 20.13)
Mar 26	Microbial symbiosis with plants and animals	23 (23.1 – 23.14)
Mar 28	Third Midterm Examination	
Apr 2	Microbe – human interactions	24 (24.1- 24.11)

Apr 4	Pathogenicity and toxins	25 (25.1- 25.8)
Apr 9	Diagnostic microbiology	28 (28.1 -28.8)
Apr 11	Antibiotics and antibiotics resistance	28 (28.10 – 28.12)
Apr 16	Bacterial and viral pathogens	30 (30.1 – 30.15)
Apr 18	Animal transmitted diseases	33 (33.1 – 33.9)
April 25	Final Examination (TBA)	

Grading policy: your final grade will be based on the average of the three best 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.

<i>Grading scale</i>	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.**