

Introductory Microbiology



Gantar, Berthold, and Rojas

FIU Lab Manual 2017-2018

Table of Contents

Chapter	Experiment #	Content	Page
Appendix	-	Basic Microscopy and Aseptic Techniques	4
Chapter 1 : Introduction to Microbiology	1	Microscopy of Living Microbes	22
	2	Cytological Stains: Gram, Acid fast, and Spore Stain	32
	3	Identification of Fungi	47
Chapter 2 : Microbial Growth	4	Bacterial Physiology	56
	5	Bacterial Transmission	67
	6	Antimicrobials; Control of Bacterial Growth	77
Chapter 3 : Environment, Human, and Food Microbiology	7	Human Bacteriology	85
	8	Environmental Bacterial Biochemistry	95
	9	Identification and Quantification of Microbes in Food	113
Chapter 4 : Applications of Microbiology	10	Applications in Food Microbiology	121
	11	Microbial Bioremediation of Oil	127
	12	Applications in Bacterial Pigments	133
	13	Screening Fungi for Antibacterial compounds	144

KEY

Sign	Meaning	
Ρ	This sign indicates works that needs to be completed by Pairs of two students	
G	This sign indicates works that need to be completed by Groups of four students or less.	
	This sign indicates works that need to be completed Individually .	