

CONTENTS

Microscopy Introduction	Handout
Laboratory Safety	1-2
Ocular and Stage Micrometers	3-5
Simple Staining and Bacterial Morphology	6-8
Hanging Drop Technique	9-10
Differential Staining	11-16
Dilutions and Aseptic Technique	17-21
Media Preparation	22-26
Isolation of Pure Cultures	27-32
Bacterial Enumeration	33-39
Environmental Influences on Microbial Growth	40-45
Isolation of <i>Streptomyces</i> from Soil	46-48
Selective and Differential Media	49-51
Microbes of the Body: Gram-positive Cocci	52-56
Microbes of the Body: The Enterics	57-64
Multitest Identification Kits	65
Bacterial Genetics	66-68
Bactericidal Effects of Ultraviolet Radiation	69-70

Control of Microbial Growth: Disinfectants and Antiseptics	71-73
Control of Microbial Growth: Antibiotics	74-78
Snyder Test	79-80
Bacterial Examination of Water	81-86
Food Microbiology	87-88
Chromogenic Substrate Test	89-92

LABORATORY NOTEBOOK – POINT BREAKDOWN

EXERCISES	POSSIBLE POINTS
Microscopy; Simple Stains; Wet Mounts & Hanging Drop Slides	6
Differential Stains, Part I - Gram Stain	4
Differential Stains, Part II - Spore Stain & Capsule Stain	4
Dilutions; Aseptic Technique; Media Prep	4
Isolation of Pure Cultures	4
Bacterial Enumeration	6
Effect of Environmental Factors on Bacterial Growth	5
Isolation of <i>Streptomyces</i>	4
Selective and Differential Media	4
Biochemical Tools for Identification of Gram+ Bacteria	6
Biochemical Tools for Identification of Gram– Bacteria	6
Rapid ID Test Strips	5
Bacterial Genetics with pBAD	6
UV Radiation	4
Disinfectants & Antiseptics	4
Kirby-Bauer Test	4
Snyder Test	4
Water Analysis	5
Food Microbiology	<u>5</u>
TOTAL	90