

Magnet Microbiology Syllabus 2012

Unit 1: Fundamentals of Microbiology

Chapter 1 The Microbial World and You

Chapter 2 Chemical Principles

Test

Chapter 3 Observing Microorganisms Through a Microscope

Chapter 4 Functional Anatomy of Prokaryotic and Eukaryotic cells

Test

Lab Practical: Microscope and Stains

Unit 2: Microbial Growth, Metabolism and Identification

Chapter 5 Microbial Metabolism

Chapter 6 Microbial Growth

Chapter 7 The Control of Microbial Growth

Test

Chapter 10 Classification of Microorganisms

Chapter 11 The Prokaryotes: Domains Bacteria and Archea

Test

Lab Practical: Dilution and Streaking Techniques

Unit 3: Interaction Between Microbe and Host

Chapter 14 Principles of Disease and Epidemiology

Chapter 15 Microbial Mechanisms of Pathogenicity

Test

Chapter 18 Practical Applications of Immunology

Chapter 20 Antimicrobial Drugs

Test

Lab Project: Unknown Organism Identification

Unit 4: Microbial Genetics and Technology

Chapter 8 Microbial Genetics

Chapter 9 Biotechnology and Recombinant DNA

Test

Lab Practical: Differential Media and Control Methods

Unit 5: Survey of the Microbial World

Chapter 12 The Eukaryotes: fungi, Algae, Protozoa, and Helminths

Chapter 13 Viruses, Viroids, and Prions

Test

Final Exam