**TABLE OF CONTENTS**

Chapter 1: Cytoskeleton ………………………………………………………………………………

Chapter 2: DNA Packaging and Chromosomes……………………………………………………

Chapter 3: Transcription and mRNA Modification………………………………………………….

Chapter 4: Translation ……………………………………………………………………………..…

Chapter 5: Transcriptional Regulation ………………………………………………………………

Chapter 6: Cell and Organelle Membrane Structure ………………………………………………

Chapter 7: Transport Across Cellular Membranes…………………………………………………

Chapter 8: The Electrochemical Gradient ………………………………………………………….

Chapter 9: Protein Trafficking ……………………………………………………………………….

Chapter 10: Vesicles in the Endomembrane System……………………………………………..

Chapter 11: Principles of Cell Signaling…………………………………………………………....

Chapter 12: GPCRs and RTKs ……………………………………………………………………..

Chapter 13: The Cell Cycle and Its Regulation ……………………………………………………

Chapter 14: DNA Replication………………………………………………………………………..

Chapter 15: Cell Death and Cancer …………………………………………………………...…..

Chapter 16: Stem Cells …………………………………………………………………………......

Attributions…………………………………………………………………………………………….