

Contents

Preface	iv
To the Instructor	iv
To the Student	vi
Laboratory Safety	viii

Lab	Title	Page	Text Chapter Reference
1	Scientific Method	1	1
2	Metric Measurement and Microscopy	9	4
3	Chemical Composition of Cells	27	3
4	Cell Structure and Function	41	2, 4, 5
5	How Enzymes Function	57	6
6	Photosynthesis	65	7
7	Cellular Respiration	75	8
8	Mitosis and Meiosis	83	9, 10
9	Mendelian Genetics	103	11
10	Human Genetics	119	10, 11
11	DNA Biology and Technology	133	12, 14
12	Evidences of Evolution	147	15, 17
13	Mechanisms in Evolution: Genetic Drift and Natural Selection	163	16
14	Bacteria and Protists	175	20, 21
15	Fungi	195	22
16	Nonvascular Plants and Seedless Vascular Plants	207	23
17	Seed Plants	223	23, 27
18	Organization of Flowering Plants	239	24
19	Water Absorption and Transport in Plants	257	25
20	Control of Plant Growth and Responses	267	26
21	Reproduction in Flowering Plants	277	27
22	Introduction to Invertebrates	293	28
23	Invertebrate Coelomates	313	28
24	The Vertebrates	337	29
25	Animal Organization	357	31
26	Basic Mammalian Anatomy I	373	31, 32, 34, 35
27	Basic Mammalian Anatomy II	387	32, 34, 35, 36, 41
28	Chemical Aspects of Digestion	403	34
29	Homeostasis	411	32, 34, 35, 36
30	Nervous System and Senses	429	37, 38
31	Musculoskeletal System	449	39
32	Animal Development	465	42
33	Symbiotic Relationships	485	45
34	Sampling Ecosystems	501	45, 46
35	Effects of Pollution on Ecosystems	511	45, 47

Appendices

A	Preparing a Laboratory Report/Laboratory Report Form	519
B	Metric System	522
C	Tree of Life	523

Credits 527

Index 529