

GENERAL BIOLOGY -3A
TENTATIVE LECTURE AND LABORATORY SCHEDULE

BAKERSFIELD COLLEGE
SPRING, 2012

I. DEVLIN-KELLY

WEEK OF	LECTURE TOPIC	LABORATORY TOPIC
1. 1/16	1/16: DR. MARTIN LUTHER KING DAY Introduction & Scientific method: Ch. 1 Intro to Taxonomy: Ch 1.3,	Ex. A: Critical Thinking Ex.--Graphs Lab Safety, p. 5 Ex 1: Eval of Scientific Publications Ex. 5: Directions
2. 1/23	Systematics & Cladistics: Ch 23 Viruses: Ch 17.0, 17.2, 17.3	Ex. 3: Scientific method Ex. 2: Use of the Microscope (Text Ch 5) Ex. 4: Cell structure and function Ex. 6: Bacteria
3. 1/30	Viruses (continued) Prokaryotes: Ch 25, 17.0, 17.1, 5.0-5.2 Kingdom Fungi: Ch. 28	Ex. 6: Bacteria (cont'd) Ex. 7: Fungi
4. 2/6	Kingdom Fungi: Ch. 28 Kingdom Protoctista: Ch 24.3, 26, 47.0, 47.1	Ex. 7: Protoctista Ex: <i>Amoeba</i> wars
5. 2/13	TEST I Kingdom Animalia: Diversity of Primitive animals: Ch 29. 2/17: LINCOLN'S DAY—NO CLASSES	LAB PRACTICAL I Ex. 9: Porifera & Cnidaria Ex. 10: Platyhelminthes, Nematoda Ex. B: Learning Styles
6. 2/20	2/20: GEORGE'S DAY—NO CLASSES Kingdom Animalia: Physiological processes in animals Relevant parts of Ch 39, 41.2,42, 44, 45, 46.2, 46.6, 47.1 2/21: LAST DAY TO DROP WITHOUT A "W"	Ex. 11: Molluscs, Annelids Ex C: Arthropods Ex. D: Echinoderms, Chordates
7. 2/27	Chordates: Ch. 30	Ex. 12: Prosection Lab, Prosection Guided Tours Ex. 11: Chordates at CALIFORNIA LIVING MUSEUM Ex. 14: Taxonomy Review
8. 3/5	Kingdom Plantae Systematics; Gymnosperms, Angiosperms: Ch 27 Monocots, Eudicots, Plant Morphology, Ch 31, 5.4	Ex. 15: Non-vascular plants Ex. 16: Dichotomous keys, Plants and Plant morphology, Monocots, Dicots
9. 3/12	TEST II Plant Transport & Nutrition: Relevant parts of Ch 31,32,33 Plant Reproduction: Ch 34	LAB PRACTICAL II Ex 14: Plant Morphology, Taxonomy, Fruits & seeds, Ex E: Plant Embryology Ex. 16: Ecology Field Exercise Ex. Z: Getting Good Grades Microscope test LAB MANUALS DUE
10. 3/19	Ecology: Bioenergetics, Nutrition and energy flow in ecosystems Ch 49, 51, 52	Ex. 17: Fruits & Veg Tutorial Ex. G: Plant Diversity Plant Repro: Seedy Side of Plants Endophytes: Jewels of the Jungle

11. 3/26	Ecology (Continued) Biosphere, Biodiversity & Conservation: Ch. 52, 53 3/30: LAST DAY TO DROP	Ex. 18: Food Webs, Biological Magnification, Keystone Species, Ex. 20: Ecology Analysis Ex. 25: Cladistics Lab, Ch 23 (Text)
4/2	SPRING BREAK—NO CLASSES	
12. 4/9	Human Ecology, The Environment: Ch 49, 53	Ex 21: Biodiversity Review Ex. Ex H: Tropical Rainforest Ex. 21: Effects of Environmental Salt on Bean Plants Ex 22. Oil Spill!
13. 4/16	TEST III Animal Behavior, Ch 54, 55	LAB PRACTICAL III Ex. 22: Survival! Ex. 23: Animal Behavior Ex. 24: “Never Cry Wolf” (Trials of Life, What Females Want, What Males will do,)
14. 4/23	Population Ecology, Microevolution: Ch 50, 51 Hardy-Weinberg	Ex. J: Population Ecology: (Mark & recapture sow bugs) Ex 25: Cladistics Lab, Ch 23 (text) Ex 27: Adaptation Nightmare
15. 4/30	Speciation, Extinction & Dinosaurs: Ch 20,21 Origin of Life and Macroevolution: Ch 22, 24 Modern Biological Issues, TBA Bridge to Bio3B	Ex. 28: Natural Selection Ex. K: Fossils & Dinosaurs Ex. 29: Cell ultrastructure Secrets of Life LAB MANUALS DUE LAB PRACTICAL IV?
16. 5/7	FINAL EXAM: _____	

****This schedule may be changed at the discretion of the instructor.**

COURSE STUDENT LEARNING OBJECTIVES

After completing the Biology 3A course, students should be able to:

1. Employ the scientific method as a way of thinking, and as a process for doing science.
This includes participation in peer review.
 - a. Propose an hypothesis
 - b. Design an experiment to test the hypothesis
 - c. Collect and analyze data
 - d. Propose and elucidate a conclusion
 - e. Communicate and defend sections 1a to 1d to peers as part of the peer review process
2. Demonstrate their ability to read, listen to, and/or follow directions.
3. Identify and use Latin roots, prefixes and suffixes in scientific terminology.
4. Demonstrate an understanding of the concepts of Cladistics and Systematics and the organization of living organisms. Analyze and construct a cladogram for a group of organisms.
5. Correctly perform basic laboratory skills.
 - a. Demonstrate proficiency using several types of microscopes
 - b. Perform dissections
 - c. Demonstrate use of aseptic techniques
6. Demonstrate use of biology field techniques and equipment and use of dichotomous keys.
7. Recognize Bio-ethics issues. Examine and discuss multiple sides of these issues. Formulate a personal stand on an issue based on examination, discussion and evaluation.
8. Recognize the importance of diversity of organisms. Assess and appraise the value of all living things and their interrelatedness.