

University School KAP Biology Syllabus 2009-2010

Dates	Campbell (8 th ed.) Chapter	Topic	Experiential Learning Elements
<u>INTERIM 1</u>			
Aug 27-28	1	Science as Process	Disc'n: Scientific Method(s)
ORGANISMAL DIVERSITY			
Aug 31-Sep 4	26, 32	Phylogeny, Tree of Life, Animals	<u>LAB 1:</u> Ohio Turtle Phylogeny Disc'n: (1) Variation, (2) Heritability, (3) Differential Success
Sep 8-11 (4d)	33	Invertebrate Diversity	<u>LAB 2:</u> Invert. Sampling: Berlese Extraction / Dich. Keys
Sep 14-18	34	Vertebrate Diversity	
Sep 21-25	29	Plant Diversity I: Land Colonization	<u>LAB 3:</u> Chipmunk trapping, measurement, marking
Sept 28-Oct 2	30	Plant Diversity II: Seed Plants	
Oct 5, 7-9 (4d)	31	Fungi	<u>LAB 4:</u> Field Obs'n & Collection / Plant Pressings / IDs
EVOLUTION & ECOLOGY			
Oct 13-16 (4d)	22, 25	Darwinism & History of Life	FIELD TRIP: Cleveland Museum of Natural History
Oct 19-22 (4d)	23	Evolution of Populations	<u>LAB 5:</u> Population genetics lab
<u>INTERIM 2</u>			
Oct 26-30	24	Species Concepts & Origins	<u>LAB 6:</u> Grey vs. Fox Squirrels
Nov 2-6	52, 51	Biosphere & Behavioral Ecology	<u>LAB 7:</u> Sciurid trapping, measurement, marking
Nov 9-13	53, 54	Population & Community Ecology	TERRY HARMON: Fish embryos/development
Nov 16-20	55, 56	Ecosystems & Conservation Biology	<u>LAB 7:</u> Sciurid trapping, measurement, marking
BIOCHEMISTRY & CELL PHYSIOLOGY			
Nov 23-24	2, 3	Life's Chemical Context & Water	<u>LAB 7:</u> Sciurid trapping, measurement, marking
Nov 30-Dec 4	4, 5	Carbon & Biomolecules	
Dec 7-11	6, 27, 28	The Cell, Bacteria, Archaea, & Protists	<u>LAB 8:</u> Diffusion / Osmosis (AP lab)
Dec 14-18	7, 11	Membrane Function & Cell Communication	
Jan 5-8 (4d)	8	Introduction to Metabolism	
Jan 11-15	9, 10	Cellular Respiration & Photosynthesis	<u>LAB 9:</u> Plant pigments & photosynthesis (AP lab)
Jan 19-22 (4d)		Semester 1 Final Exam	Semester 1 Final Exam
<u>INTERIM 3</u>			
CELL BIOLOGY & MENDELIAN GENETICS			
Jan 25-29	12, 13	Mitosis & Meiosis	<u>LAB 10:</u> Mitosis / Meiosis slides (AP lab)
Feb 1-5	14	Mendelian Genetics	<u>LAB 11:</u> Wisconsin Fast-Plant genetics Lab (AP lab)
Feb 8-11	15, 16	Molecular Basis of Inheritance	
Feb 17-19 (3d)	17, 18	Genes, Proteins, Prokaryotes, Eukaryotes	
Feb 22-26	19, 20	Viruses & Biotechnology	<u>LAB 12:</u> DNA extraction/gel electrophoresis (AP lab)
ORGANISMAL BIOLOGY & PHYSIOLOGY			
Mar 1-5	35, 36	Plant Growth, Structure, & Function	<u>LAB 13:</u> Transpiration (AP lab)
Mar 8-11 (4d)	37, 38, 39	Plant Nutrition, Reproduction, Behavior	
<u>INTERIM 4</u>			
Mar 15-19	40, 41	Animal Nutrition, Structure, & Function	<u>LAB 14:</u> Circulatory system (AP lab + chap 42 reading)
Apr 6-9	43, 44	Excretory & Immune Systems	
Apr 12-16	45, 47	Animal Development & Chemical Signals	<u>LAB 15:</u> Aquarium trout fry: water-born predator cues
Apr 19-23	48, 49, 50	Neurons, Nervous Systems, Behavior	Pinker: <i>How the Mind Works</i> ; <u>LAB 16:</u> Sciurid marking