

Schedule

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Date	Week	Scenario (for readings see http://bioweb-cfs.cas.okstate.edu/info/requiredreadings)	Lab Topic
Aug 18	1	1. Psychics and Scientists: A series of short scenarios will center on measurement of psychic phenomena, a faculty research question, a breath holding experiment, analysis of class score data, and what is a theory?	1. Why are larger individuals of a particular species eaten more frequently than smaller ones?
Aug 25	M	Last day to add and last day to drop with no grade	
Aug 25	2	2. Surviving Fire and Ice: The scenario focuses on surviving in desert and tundra and adaptations for thermoregulation and water retention.	2. Why are animals shaped differently in cooler climates than in warmer ones?
Sept 1	M	University Holiday (Labor Day) – No Class	
Sept 2	3	3. Out of the Rain Forest: An aboriginal fishing expedition in the rain forest is explored in terms of the action of a toxin produced by plants. Pesticides, coevolution, cell membrane function and cell respiration will be discussed.	3. Why do certain animals eat more at certain temperatures than others, or than they do at other temperatures?
Sept 8	4	Out of the Rain Forest continued.	4. Why is diffusion through a membrane sometimes faster?
Sept. 15	M	EXAM #1 at 5:30 pm in [ROOM]–Topics for exams will be those from Scenarios 1-3	
Sept 15	5	4. Chemical Defenses: A Nigerian child eats a poisonous bean, which requires extraordinary treatment by the local physician, framing investigation of cell membrane structure, secretion, intercellular communication, and neurons.	5. Why do certain cells contain more of certain structures than do others?
Sept 22	6	5. Marooned in the Galapagos: This trip raises questions about what makes a species or organism successful. Attention to the physical character of these desert islands and animals living there highlights natural selection in action.	6. Why do certain finches survive and reproduce more than others under various conditions of food availability?
Sept 29	7	6. Rainbow Connection: A scuba diving botanist is sent by the Smithsonian to collect algae. Blood is spilled and the biological uses of colored light, including photosynthesis, are explored.	7. Why do plants grow better under certain lighting conditions than others?
Oct 6	8	Rainbow Connection - continued.	8. Why do plants transpire water faster under certain environmental conditions?
Oct 13	M	EXAM #2 at 5:30 pm. in [ROOM]- Topics for exams will be those from Scenarios 1-6	
Oct 13	9	7. Emerging Diseases: On the Amazon we meet the Yanomami amidst a breaking TB epidemic, raising the roles of symbiosis, population dynamics and evolution in development of epidemics.	9. Why do some populations of bacteria become resistant to antibiotics?
Oct 20	10	Emerging Diseases continued	No Lab
Oct 24	F	University Holiday (Fall Break) – No Class	
Oct 27	11	8. Family Reunion: A family reunion opens the door to talk about cancer, DNA, protein synthesis, genetically determined diseases and biotechnology.	10. Why can some bacteria produce a color that others cannot?
Nov 3	12	Family Reunion continued	11. Why is a new population of people exhibiting disease symptoms?
Nov 7	F	Last day to drop with automatic W	
Nov 10	13	9. Hogs & Chickens: Statistics about concentrated animal feeding operations raise questions about nutrients in biogeochemical cycles, the effects of livestock and people on aquatic systems.	12. Why are invertebrate species disappearing from the local Creek?
Nov 17	M	EXAM #3 at 5:30 pm in [ROOM]- Topics for exams will be those from Scenarios 1-8	
Nov 17	14	Hogs & Chickens Continued	13. Why is there less oxygen in some streams than in others?
Nov 24	15	10. Why We Care about Fat: our contemporary preoccupation with fat sets the scene for a discussion of fat metabolism, its genetic, nervous and hormonal control, and behavioral implications.	No Lab
Nov 26-28	W-F	University Holiday (Thanksgiving Break) – No Class	
Dec 1	16	Why We Care about Fat continued.	14. Why do some guppies attract more mates than others?
Dec 9	T	FINAL EXAM at 12:00 – 1:50 pm in [ROOM] Topics for exams will be those from All Scenarios	Note the Exam time!!!