Schedule

Date	Week	Scenario (for required readings see http://bioweb-cfs.cas.okstate.edu/info/requiredreadings)	Lab Topic
13 Jan	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?	Intro Lab - Read pp.G1-G40 in the lab manual prior to attending.
20 Jan	**M**	**Martin Luther King Holiday: No Class**	
21 Jan	2	2. Surviving Fire and Ice: The scenario focuses on surviving in desert and tundra and adaptations for thermoregulation and water retention.	1. Why are larger *Tetra cryptoforma* eaten more frequently than smaller ones?
21 Jan		Last day to add and last day to drop with no grade	
27 Jan	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.	2. Why are animals shaped differently in cooler climates than in warmer ones?
3 Feb	4	Out of the Rain Forest continued.	3. Why do certain animals eat more at certain temperatures than others, or than they do at other temperatures?
10 Feb	**M**	**EXAM 1 at 5:30 pm in [ROOM]–Topics for exams will be those from Scenarios 1-3**	
10 Feb	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.	4. Why is diffusion through a membrane sometimes faster?
17 Feb	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.	5. Why do certain cells contain more of certain structures than do others?
24 Feb	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.	6. Why do certain finches survive and reproduce more than others under various conditions of food availability?
3 Mar	8	Rainbow Connection - continued.	7. Why do plants grow better under certain lighting conditions than others?
10 Mar	**M**	**Exam 2 at 5:30 pm. in [ROOM]- Topics for exams will be those from Scenarios 1-6**	
10 Mar	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.	8. Why do plants transpire water faster under certain environmental conditions?
17-21 Mar	10	**Spring Break – No Classes**	**No Lab**
24 Mar	**11**	Emerging Diseases continued	9. Why do some populations of bacteria become resistant to antibiotics?
31 Mar	12	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?
7 Apr	13	Family Reunion continued	11. Why is a new population of people exhibiting disease symptoms?
11 Apr	F	Last day to drop with automatic W	
14 Apr	**M**	**EXAM #3 at 5:30 pm in [ROOM]- Topics for exams will be those from Scenarios 1-8**	
14 Apr	14	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 Clearwater Creek?
21 Apr	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.	13. Why is there less oxygen in some streams than in others?
28 Apr	16	Why We Care about Fat continued.	14. Why do some guppies attract more mates than others?
9 May	**F**	**FINAL EXAM at 12:00 – 1:50 pm in [ROOM]** **Topics for exams will be those from All Scenarios**	**Note the Exam time!!!**