**Animal Behavior Syllabus**

Meets: MW 12:55pm-1:45pm KIMP 305 F 12:55-2:45pm SCEN computer lab

Lab: F 12:55-2:45pm, guided independent research project

Instructor: Erica Westerman (ewesterm@uark.edu)

Office: SCEN 416 Office hours: Tues 9:30-11am, Wed 2-3:30pm

**Course Goals**: Students will learn the basic principles of animal behavior, including an introduction to the theory underlying such concepts as optimal foraging, cooperation, and honest signaling. Students will learn how to conduct animal behavior research, enhance their ability to critically read scientific literature, and improve their written and spoken communication skills.

**Main Forms of Assessment**: 2 midterm exams (20% each), 1 cumulative final exam (20%). Oral presentation of independent research project (rough draft presentation, final presentation, participation during question portions of research symposium) (20%). Written report of independent research project (topic selection, justification/outline, experimental design/ethogram, preliminary results, rough draft, final draft) (20%). There is one grade for the course and lab.

**Text**: Animal Behavior: An Evolutionary Approach 10thth Edition by John Alcock

**General Course Format**: MW lectures, F discussion/lab

**Schedule**

Week 1 (1/17-1/19): **W** Behaviors as traits/role in evolution **F** Overview of syllabus, expectations, requirements / What do we mean when we say Animal Behavior?/

Reading: J.A. Chapter 1

Week 2 (1/22-1/26): **MW** Brief History of Animal Behavior/Proximate and ultimate causes of behavior **F** Studying behavior

Reading: J.A. Chapter 10

Week 3 (1/29-2/2): **MW** Development of Behavior/Neural mechanisms of behavior  **F** experimental design

Reading: J.A. Chapter 11, Chapter 12

Week 4 (2/5-2/9): **MW** Sensory Systems/Circadian Rhythms  **F** science, collaborative work, pick team (of 3)

Reading: Papers

Week 5 (2/12-2/16): **MW** Hormones/ Hormones and Sex **F** mini-experiment, project topic due (Saturday review session)

Reading: J.A. Chapter 13

Week 6 (2/19-2/23): **M** Exam **W** Adaptation **F** methods, transferrable?

Reading: J.A. Chapter 6 (from edition 9, will get shared/passed out in class)

Week 7 (2/26-3/2): **MW** Optimal Foraging Theory/Predation defense  **F** paper discussion, project justification/outline due

Reading: J.A. Chapter 5

Week 8 (3/5-3/9): **MW** Habitat Selection/Migration  **F** discussions of methods, experimental design

Reading: J.A. Chapter 6

Week 9 (3/12-3/16): **MW** Communication/Honest Signaling **F** present methods, constructive criticism, ethograms due

Reading: J.A. Chapter 4

Spring Break (3/19-3/23)

Week 10 (3/26-3/30): **MW** Reproduction  **F** test ethograms

Reading: J.A. Chapter 7

Week 11 (4/2-4/6): **M** Exam, **W** Mating systems  **F** analyzing behavioral data

Reading: J.A. Chapter 8

Week 12 (4/9-4/13): **MW** Parental Care, social behavior **F** interpreting behavioral data, prepare for next week

Reading: J.A. Chapter 9,3

Week 13 (4/16-4/20): **M** Cooperation, preliminary results due, **W** Behavioral Plasticity  **F** behavior in different environments (independent)

Reading: Papers-

Week 14 (4/23-4/27): **M** Environmental Effects, rough draft of paper due **W** Behavioral Genetics **F** Group data comparison, analysis

Reading: Papers-

Week 15 (4/30-5/5): Project Presentations

**Final Exam**: Monday May 7, 12:45pm-2:45pm

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