**Biology 281: Animal Behavior – Fall 2011**

Professor: Ethan Clotfelter Office: 229 LSB (lab: 223 LSB)

Email: edclotfelter@amherst.edu Office hours: M 10:00 am-12:00 pm, Tu 1:00-3:00 pm

Phone: 542-2252

Lectures: MWF 9:00-9:50 am Labs: Th 2:00-6:00 pm

Room: Merrill 403 Lab room: Life Sciences 336

Readings: e-reserves on course website Lab TA: Rose Larios ’12 (rlarios12@amherst.edu)

**Lecture schedule**

**Date Topic**

Sept 7 Approaches to studying behavior

9 Approaches to studying behavior

12 Behavior genetics

14 Behavior genetics

*16 Readings on behavior genetics*

19 Learning

21 Learning

*23 Readings on learning*

26 Imprinting, kin recognition

28 Imprinting, kin recognition

*30 Readings on imprinting and kin recognition*

Oct 3 Behavioral endocrinology

5 Biological rhythms

*7 Readings on behavioral endocrinology and biological rhythms*

**10 Mid-semester break – no class**

**12 Exam 1**

14 Orientation, navigation, migration

17 Orientation, navigation, migration

*19 Readings on orientation, navigation and migration*

21 Dispersal and habitat selection

24 Territoriality

*26 Readings on dispersal, habitat selection and territoriality*

28 Foraging behavior

31 Antipredator behavior

Nov *2 Readings on foraging and antipredator behavior*

4 Communication

7 Communication

*9 Readings on communication*

**11 Exam 2**

14Sexual selection and mate choice

16 Sexual selection and mate choice

*18* *Readings on sexual selection and mate choice*

**21-25** **Thanksgiving break – no class**

28 Mating systems

30 Mating systems

Dec 2 Parental investment

*5 Readings on mating systems and parental investment*

7 Social behavior

9 Social behavior

12 Animal cultural traditions

*14 Readings on social behavior and animal cultural traditions*

**TBA Exam 3**

# **Laboratory schedule**

**Dates Lab**

Sept **8** **No lab**

15 Behavior of insect pollinators ‡

22 Learning in fish

29 Learning in fish

Oct 6 “Dear enemy” phenomenon in *Betta splendens*

13 Field trip‡

20 Foraging and antipredator behavior in birds ‡

27 Foraging and antipredator behavior in birds ‡

Nov 3 Winner and loser effects in crayfish

10 Honest signaling of fighting ability in crayfish

17 Introduce dog cognition lab + set-up burying beetle lab

**24 Thanksgiving break – no lab**

Dec 1 Finish burying beetle lab + continue dog cognition lab

8 Dog cognition lab

‡ For these field labs, dress appropriately for the weather. Labs will still be held in light rain, cold or even snow. Be prepared to be sedentary for an hour or more. If conditions are particularly inclement, check your email by noon on lab day for a decision from me about whether or not lab will be postponed.

## Grading

**Assignment Percent of total grade**

Exams † 45%

Participation in reading discussions 20%

Lab assignments ‡ 35%

**Total 100%**

† Exams are non-cumulative, and thus each one will be based on the lecture material and course readings for approximately one third of the course. Exams will be weighted to reflect the number of lectures they cover.

‡ There will be approximately 6-7 written lab assignments of varying length, ranging from the answers to a few questions to a full lab report.