Principles of Animal Behavior (ZOOL 606 and 606L)  
Tim Tricas, Dept of Biology  
Fall 2019

This course reviews theory and empirical studies on the mechanisms and evolution of animal behavior. We will explore proximate causal mechanisms such as signals and perception, behavioral genetics, and orientation/migration. We address several topics in behavioral ecology such as design of signals, the coevolution of predator and prey, resource optimization, sexual selection and the selfish gene. The class will also discuss recent papers from the primary literature on the lecture topics.

The laboratory portion of this course (ZOOL 606L) is optional and involves independent projects that use hypothesis testing & the scientific method to study questions in animal behavior.


Date  Lecture Topic  Chapter
Aug  28 Animal Behavior, Ethology and Evolution  K&D 1
      30  
Sept  4 Signals, Cues and Perception  H&S 1; Y 1,2
       6  
      11 Integration and Motor Processes  H&S 2,3
      13  
      18 Motivation  H&S 4,5,6
      20  
      25 Genes and Behavior  G 3
      27  
          2 Orientation / Migration  G 10
      4  
Oct  9 Communication and Signals  K&D 14
     11  
     16 Behavioral Ecology, Midterm exam due  K&D 2
     18  
     23 Decision Making  K&D 3
     25  
     30 Predators and Prey  K&D 4
     1  
       6 Competing for Resources  K&D 5
Nov  8  
     13 Fighting and Assessment  
     15  
     20 Territory Economics  K&D 7
     27  
     29 Non-instructional Day  K&D 8, 9
       4 Mating Systems  
       6 Selfish Genes  K&D 11,12
Dec  11 Living in Groups, Handout final exam  K&D 6
     16 (Monday) Final Exam Due (12 pm)

Principles of Animal Behavior Lab (ZOOL 606L)

Date  Lab Topic
Aug  28 Orientation and discussion of research projects  
Sept  11 Informal presentation of research hypothesis  
      18 Formal presentation of research project  
      25 Turn in research proposal  
Nov  13 Review of projects  
Dec  11 Presentation of research projects  
      13 Friday (reports due at 4.30 pm)