PSY 2364 Animal Communication Fall 2015

Instructor: Dr. Peter Assmann
Office: GR 4.118
Tel: 972-883-2435
Email: assmann@utdallas.edu

Classroom: GR 4.301
Class meetings: MW 11:30 – 12:45 PM
Office hours: W 10:30 – 11:30 AM

Course Web Page: http://www.utdallas.edu/~assmann/PSY2364/

Textbook: L.A. Dugatkin (2013). Principles of Animal Behavior. 3rd edition. W.W. Norton & Co.

Pre-requisites: None.

The scientific study of animal communication draws from a range of disciplines, including physics, psychology, neuroscience, behavioral ecology, cognitive science and linguistics. Animals use a variety of methods to communicate with each other, such as visual gestures and displays, vocal calls and songs, chemical signals and odor trails. This course surveys the diverse forms of communication used throughout the animal kingdom, including insects, frogs, birds, bats, monkeys, apes and humans. The course will investigate the design features that characterize communication systems and the unique adaptations that are required in different environmental settings. Sensory and neural mechanisms that underlie the production and perception of communication signals will be considered, as well as the evolutionary and ecological forces that have shaped these systems in their natural environments. *This course serves as a General Education requirement for the Life and Physical Sciences Texas Common Core. Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.*

Student Learning Objectives that address the General Education Core Objectives:

Critical thinking skills: Explain and analyze, with examples, four key questions that are addressed in the study of animal communication (mechanism, function, ontogeny, and phylogeny).
Communication skills: Describe and illustrate major theoretical perspectives that address animal behavior and animal communication (psychology, neuroscience, behavioral ecology, cognitive science, and linguistics).
Empirical and Quantitative: Apply basic physical principles (such as the inverse square law in acoustics) to the study of communication signals.
Teamwork: Show teamwork skills in discussing and analyzing the relationship between human language and animal communication.

Course requirements:

Midterm exam (40%). Short-answer and medium-length questions. Study questions will be made available on the class web page. No makeup exams will be provided.

Final exam (40%). Same format as the midterm.

Class participation, homework and quizzes (20%). Several classes will include a brief unannounced quiz or a homework assignment (due one week after the assigned date) covering material from preceding classes. No makeup quizzes are provided.

Extra credit assignment (up to 5%). Optional extra credit assignment on a topic of your choice (topic must be approved by instructor by **Oct. 14**). Due same day as the final exam.

Grading policy. Grading is based on the following criteria:

A+	96	B+	84	C+	70	D+	55
A	93	B	80	C	65	D	50
A-	89	B-	75	C-	60	F	<50

Dates[1]	Topics	Readings
Mon Aug 24	Definitions of communication	
Wed Aug 26	Historical studies of animal behavior	Dugatkin, Ch. 1
Mon Aug 31	Ethology and communication	
Wed Sep 02	Evolution and natural selection	Dugatkin, Ch. 2
Mon Sep 07	**Labor Day – no class**	
Wed Sep 09	Coding and information	Dugatkin, Ch. 3 & 4
Mon Sep 14	Sensory specialization	
Wed Sep 16	Acoustic communication	Dugatkin, Ch. 13
Mon Sep 21	Acoustic communication	
Wed Sep 23	Visual communication	
Mon Sep 28	Visual communication	
Wed Sep 30	Chemical communication	
Mon Oct 05	Tactile and electrical communication	
Wed Oct 07	**Midterm exam**	
Mon Oct 12	Territory and social organization	Dugatkin, Ch. 14
Wed Oct 14	Bird song as a territorial signal	**Due date for extra credit proposals**
Mon Oct 19	Assessment signals	Dugatkin, Ch. 15
Wed Oct 21	Warning, mimicry, and alarm signals	Dugatkin, Ch. 13
Mon Oct 26	Courtship and mating systems	Dugatkin, Ch. 7 & 8
Wed Oct 28	Development of communication	Dugatkin, Ch. 9
Mon Nov 02	Learning and cultural transmission	Dugatkin, Ch. 5 & 6
Wed Nov 04	Vocal learning	
Mon Nov 09	Competition and cooperation	Dugatkin , Ch. 10
Wed Nov 11	Information and deception	
Mon Nov 16	Primate communication	Dugatkin , Ch. 12
Wed Nov 18	Primate communication	
Mon Nov 23	**Fall Break**	
Wed Nov 25	**Fall Break**	
Mon Nov 30	Human communication and language	Dugatkin , Ch. 17
Wed Dec 02	Language development	
Mon Dec 07	Final exam review	
Wed Dec 09	**Final Exam: 11:00 AM – 1:45 PM - GR 4.301**	**Extra credit project due**

[1] Note: These descriptions and timelines are subject to change at the discretion of the Professor.

UT Dallas Syllabus Policies and Procedures: The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to http://go.utdallas.edu/syllabus-policies for these policies.

Comet Creed: *This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:* "As a Comet, I pledge honesty, integrity, and service in all that I do.