



What: PSYC 33-111-01 Introduction to Animal Behavior

When: Fall 2007: Tu/Th 10/30 - 12/6 - *W, Th 3-5 or by appointment*

Where: 9:30-10:45 a.m. in FJSH 151

Who: Facilitator - Dr. Romi Burks, Assistant Professor Biology; Animal Behavior Program Chair; burksr@southwestern.edu; Office x1280; Fondren Jones 141

Why: To increase knowledge about the scope of Animal Behavior and to learn about the possibilities of majoring or minoring in AB at Southwestern

What is Animal Behavior? (paraphrased from *The Center for the Integrative Study of Animal Behavior, Indiana Univ.* - <http://www.indiana.edu/~animal/help/careers.html>)

Animal behavior is the scientific study of the functions that animals perform, from the simplest to the complex in both the type of action as well as the animal. It represents a synthesis of approaches used by both psychologists to study humans and biologists to study the natural world. The field of animal behavior examines the causes, functions, development, and evolution of behavior.



1. Causes of behavior include all of both external (i.e. food) and internal (i.e. hormones).
2. Function includes both short-term consequences of behavior on an animal (such as attracting a mate), and the long-term adaptive significance of the behavior in a particular environment.
3. Development of behavior looks at how behavior changes over the lifetime of an animal.
4. Evolution of behavior is concerned with origins of behavior patterns and how these change over generations of animals.

Goals of this course:



1. To teach students to describe the field of animal behavior in purpose and content;
2. To learn about ethical and social issues surrounding AB;
3. To interact with the Animal Behavior Faculty and discover their research interests;
4. To establish mentorship relationships with upper-level AB students if interested;
5. To create a sense of a cohort within the AB program.

Readings:

Several classes will be conducted by the various faculty members of the Animal Behavior Program. At least 1 week in advance, they will provide a reading (book chapter, research paper, newspaper articles, etc...) that is **expected to be completed by the day of class.**

Grading:

This is a P/D/F course for 1-hr of academic credit. Traditionally, a 1-hr course covers 45-hrs of work during a semester (15 hours in class + 2 hrs outside of class for each hour in class). This class is condensed but will meet this time commitment overall.

The absence of a traditional grading system does not suggest lack of a strong academic component.

1. **Attendance and Participation** - The format of the course depends on the participation of the class community. In addition, this class only meets for approximately five weeks so class presence is vital and expected:
 - 2 or more unexcused absences will not allow you to pass the course. The field trip is optional b/c of the time commitment but you are encouraged to try to attend.
 - Also please be on time to class. It is courteous to your classmates as well as the presenter. Frequent tardiness (i.e. twice) will count as an absence.
2. **Four 1-pg Response Papers to Readings**
 - To ensure compliance with reading assignments and to promote engaged discussions, you will be expected to write a 1-page reaction paper for each major reading assignment.
 - These responses (1-page, single spaced and proofread) should clearly discuss **at least 2 points** that interested you, including a discussion of why they were particularly meaningful to you.
 - The paper should clearly end with one question that the reading inspired.
 - These papers will be handed in at the end of class. You should take notes and write comments on the back of these papers during the class discussion.
 - You will receive a response to both the typed responses that you did beforehand and the hand-written notes and/or reactions you had during class.
 - Those papers not acceptable for a "passing grade" will be returned for revision.
 - More than 5 opportunities = will return unsatisfactory papers.
3. **Observational Hours - 3 hrs**
 - Each student will need to complete 3 hrs of watching animals.
 - Students should be prepared to share their insights with class.
 - Each student will also turn in copies of written notes and assertion that the hours were completed. For those continuing in Animal Behavior, this work will be used as a basis to assess your growth as a major over

time (i.e. will compare with later work in Animal Behavior and Capstone)

- The type of animal and observation is flexible although see handout for complete details.

4. Book Review

- Each student will write a book review about any "popular" book about animal behavior. The idea behind this requirement is to develop a book list for the AB program website.
- You can choose to read alone, in a pair or trio. The assignment will be a 2 pg. book review that we will discuss one day in class.
- Think about the big question: What is our role of observers of animals?
- Format: 2 pages, single spaced, grammatically correct
 - i. Executive summary: 100 words - to read or not to read; content and opinion
 - ii. 2-3 paragraphs - basic review of content
 - iii. Final page: unique aspects of the book, interesting sections, identify connections to larger issues in animal behavior
- Some ideas:
 - E. O. Wilson - *The Naturalist*
 - Masson and McCarthy - *When Elephants Weep*
 - Bekoff and Goddall - *The Emotional Lives of Animals*
 - Grandin and Johnson - *Animals in Translation - Using the Mysteries of Autism to Decode Animal Behavior*
 - Jans - *The Grizzly Maze: Timothy Treadwell's Fatal Obsession with Alaskan Bears*
 - Treadwell - *Among Grizzlies*
 - Mowat - 1963 - *Never Cry Wolf*
 - Moore - 2002 - *Parasites and the Behavior of Animals*
 - Linden - 2002 - *The Octopus and the Orangutang: More True Tales of Animal Intelligence, Intrigue and Ingenuity*

Because of the short time frame, dropping this course should not be an option. However, Thursday, Nov. 15th is the last day to drop without record.

5. Film Critique

On December 4th, we will talk about the representation of animal behavior in popular books and film. You will each talk about your book reviews briefly and then we will spend the rest of the time reflecting on the movie, *Grizzly Man*. You should arrange to watch this movie outside of class time. Each student will write a 1-page film critique that answers the question:

Was Timothy Treadwell an animal behavioralist?

Your critique should identify specific parts of the movie that support your answer.

Also note: Southwestern University and I are committed to assisting students with disabilities. There is nothing unusual or wrong with requesting help if needed. Reasonable accommodations may be made once a student has registered his/her disability and has the appropriate documentation on file with the Office of Academic Services on the third floor of the Cullen Building. Professors must be notified of the accommodation at least two weeks before the accommodation is necessary or as soon as reasonably possible. For more information, Kim Murphy at 863-1286.

Academic Dishonesty: All course work is to be done independently unless made clear by the professor. We are all very fortunate to have the Honor System here at Southwestern. In general, professors establish ground rules for acceptable collaboration or rules for exams, and students follow those rules.

You must **write out** and sign the *honor pledge* on all individual work to be graded. The wording is as follows: "I have neither given nor received aid on this assignment nor have I seen anyone else do so." Your signature is also required. Please take responsibility for taking care of this; I will not chase you down if you forgot the pledge. By matriculating at this university, each of you has agreed to uphold this wonderful tradition. If you are unclear on the concept of plagiarism, come talk to me. When in doubt, paraphrase and cite using Name and Year methods (Burks 2005). Any perceived impropriety will be discussed with the student and then the appropriate action pursued.

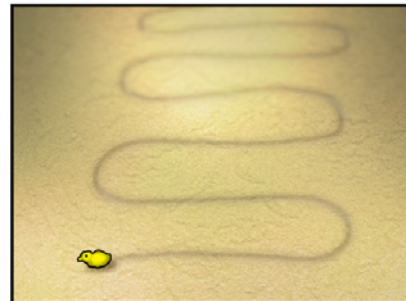
About the Program:

The major in Animal Behavior is an interdisciplinary program offered by the departments of Biology and Psychology. Because the Animal Behavior program is taught from the perspectives of Biology and Psychology, students learn first-hand how two different disciplines can combine for a greater understanding of behavior. Through coursework and independent research, students learn how to study behavior and address proximate questions of behavior in the laboratory under tightly controlled conditions. In addition, students also learn how ethologists and behavioral ecologists study behavior in field-based experiments to address ultimate questions of behavior. The program is designed to prepare students for graduate programs in animal behavior, animal learning, behavioral ecology, behavioral neuroscience, ecology, neuroscience, and veterinary science. Students seeking admission to veterinary school are advised to obtain clinical experience and take the first year of chemistry, organic chemistry, a year of calculus, and a year of physics.



Penguin motivational speakers.

DOCTOR FUN



The mysterious trail of the Sidewinder Peep

21 Mar 2005

Copyright © 2005 David Farley, dfarley@biblio.org
<http://biblio.org/Dave/fun.html>
 This cartoon is made available on the web for educational purposes only. Opinions expressed here are solely those of the author.

List of Readings (available as PDF/Word files on Segue unless otherwise noted):

To access Segue, visit segue.southwestern.edu and enter username and password. Click on Introduction to Animal Behavior link and then Readings.

1. Institutional Animal Care and Use Committee Tutorial. 2004.
 - --Note separate guides occur for non-mammals
2. Jonkel, Charles. September 25th (2006). People of the Croc Hunter Ilk are Worse Than the Most Bloodthirsty Slob Hunter: Save a Grizzly, Visit a Library. Editorial. *Counterpunch*. <http://www.counterpunch.org/jonkel09252006.html>
 - --Plus additional commentary from ECOLOG website
3. Lambeth, S. P., J. Hau, J. E. Perlman, M. Martino, and S. J. Schapiro. (2006). Positive reinforcement training affects hematologic and serum chemistry values in captive chimpanzees (*Pan troglodytes*). *American Journal of Primatology* 68: 245-256.
4. Lovell, J. A., A. Diehl, E. Joyce, J. Cohn, J. Lopez and F. A. Guarraci. (2007). "Some guys have all the luck": Mate preference influence female paced mating behavior in rats. *Physiology and Behavior* 90: 537-544.
5. Pierce, B. A., & Gutzwiller, K. J. (2004). Auditory sampling in frogs: detection efficiency in relation to survey duration. *Journal of Herpetology* 38(4): 495-500.
6. Pierce, B. A., & Gutzwiller, K. J. (2007). Interobserver variation in frog call surveys. *Journal of Herpetology* 41(3): 424-429.
7. Purdy, J. E., & Domjan, M. (2001). Comparative psychology and animal learning: Learning about animals and the animal in all of us. In J. S. Halonen & S. F. Davis (Eds.). *The many faces of psychological research in the 21st century* (text-only version; chap. 13). Retrieved December 12, 2001 from <http://teachpsych.lemoyne.edu/teachpsych/faces/text/ch13.htm>
8. Purdy, J. E., A. C. Roberts and C. A. Garcia. (1999). Signal tracking in cuttlefish (*Sepia officinalis*). *Journal of Comparative Psychology* 113(4): 443-449.
9. Schapiro, S. J., J. E. Perlman, E. Thiele, and S. Lambeth. (2005). Training nonhuman primates to perform behaviors useful in biomedical research. *Lab Animal* 34(5): 37-42.
10. Schapiro, S. J. (2002). Effects of social manipulation and environmental enrichment on behavior and cell-mediated immune responses in rhesus macaques. *Pharmacology, Biochemistry & Behavior* 73: 271-278.
11. Youens, A. K.* and R. L. Burks. Comparing applesnails with oranges: the need to standardize measuring techniques when studying *Pomacea*. DOI: 10.1007/s10452-007-9140-0.

Tentative Schedule:

	<i>Date</i>	<i>Topic</i>	<i>Reading</i>	<i>Instructor</i>	<i>Notes</i>
1	Tuesday October 30 th	What is AB?		Dr. Romi Burks	Syllabus Handout
2	Thursday November 1 st	Animal Behavior Methodology/Ethics	Purdy & Domjan 2001; IACUC document	Dr. Romi Burks	Receive handout
	<i>Friday November 2nd</i>	<i>4 p.m. AB student meeting - Dominique Bertrand - Ice Cream</i>			
3	Tuesday November 5 th	Research #1 - Weddell Seals	Purdy et al. 1999	Dr. Jesse Purdy	Dr. Burks out of town
4	Thursday November 8 th	Research #2 - Primates	Schapiro et al. 2005, Schapiro 2002 Lambeth et al. 2006	Dr. Steve Schapiro	Read in this order; Write on 1
5	Tuesday November 13 th	Research #3 - Ecological Methodology and Observations	Pierce & Gutzwiller 2004, 2007; Youens and Burks 2007	Dr. Romi Burks; maybe Dr. Ben Pierce	Drop date with no W; Assign Observations
6	<i>Thursday November 15th</i>	<i>Application A: Field Trip to MD Anderson</i>	<i>Leave 8am from Southwestern; Return by 1 pm. Lunch will be provided. Need 2-3 drivers too.</i>		
7	Tuesday November 20 th	Research #4 - Behavioral Neuroscience	Lovell et al. 2007	Dr. Fay Guarraci	
8	Thursday November 22 nd	Thanksgiving - No Class	Read your Animal Behavior Book Choice - Discussion on 12/4		
9	<i>Tuesday November 27th</i>	<i>Application B: Life as a Vet</i>	<i>Dr. Bill Ard will be talking with the class about his experience as a small animal veterinarian</i>		
10	<i>Thursday November 29th</i>	<i>Application C: The Ins and Outs of Being an AB Major</i>	<i>Current Animal Behavior Majors will be available for Discussion of the major and review of the degree plan</i>		
9	Tuesday December 4 th	Discussion: <i>Grizzly Man</i> and Book Reviews		Dr. Romi Burks	
11	Thursday December 7 th	Documentary: Kings of Camouflage	Course Evaluations	Dr. Romi Burks	Documentary features Dr. Purdy