

Prerequisite: An Animal Behavior course, e.g., APY 246, APY 344, PSY 443, PSY 434 or BIO 444. *This applies only to undergraduates.*

Dr. Berman
Office Hrs.: Th 1-3
Spaulding, Room 165

APY 443/547
Class Time: Th 3:00-5:40
Spring 2007
Classroom: 158 Spaulding

SYLLABUS: Ethology Practicum

Zoo Projects: Observational Studies of Animal Behavior.

This is a course for students who have had some exposure to animal behavior and who would like to learn in more depth how to go about observing animals in a scientific manner. Principles of animal behavior improve our understanding in many fields concerning both humans and nonhumans: social relationships, social evolution, social development, animal breeding, zoo management, and conservation.

In this course, you will learn both by doing and by reading and discussing. First, we will discuss how animal behaviorists do their work in the field, in captive groups, and in the laboratory. Then we will practice some of these techniques together. From this point onwards, the course will take place mostly at the zoo. With my help, you will design and carry out your own research at the zoo, analyze your data, present your findings to the class and write them up into a scientific paper.

TENTATIVE SCHEDULE AND READING

DATE	TOPIC	READING
Jan. 18	Introduction to course	Haslett, Ch. 1-2 Martin & Bateson, Ch. 1-3
Jan. 25	Lecture & discussion: Why observe animal behavior: How do we get started?	Haslett, Ch. 8 Martin & Bateson, Ch. 4-6
Feb. 1	Lecture & discussion: How to ask a behavioral question. How to answer it.	Haslett, Ch. 3-7
Feb. 8,15	Demonstrations & practice observation at Buffalo Zoo and/or on video.	Martin & Bateson, Ch. 7-8
Feb. 22 thru Mar. 15	Individual consultations. Collect your data.	
Mar. 22	Lecture & discussion: How to analyze your data & present it. How to make a professional presentation, how to write a professional scientific paper.	Martin & Bateson, Ch. 9 Haslett, Ch. 9 - 11
Mar. 29 thru April 12	Work on data analysis. Individual consultations.	
Apr. 19, 26	Student presentations	

STUDENT REQUIREMENTS:

Project:

Project topic and list of references due on Feb 1.
Full project description due Feb. 8.
Project presentation in class, Apr. 19, 26
Full written project report due: April 30th.
(Hand in an extra copy for the zoo.)

Exams: There will be no exams.

Grading: Grading will be based 50% on the final project report, 35% on the class presentation, and 15% on zoo "lab" work (how well the zoo facility is utilized and on the preliminary project work).

Reading: The reading will be heavy for the first few weeks in order to help you get started on your project. Later in the semester, it will be light.

1. Observational Research in Animal Behavior: A Student Guide by Gail W. Haslett. This is an unpublished "how to do it" book on student projects in animal behavior in zoos. It is a clearly and pleasantly written guide for the type of project you will do in this course. I think you will find it a great help throughout all stages.

2. Measuring Behaviour: An Introductory Guide, 2ND Edition by Paul Martin and Patrick Bateson. This is a broader and more advanced guide to methods used in studying animal behavior. It is written in a casual but serious manner. We will use it to discuss not only the observational methods you will be using but also methods used in the laboratory. It is not meant to be used as a guide for your projects in the same sense as Haslett's book because it often requires a fairly advanced knowledge of behavior, sophisticated equipment, and/or experimentation. It should be used to broaden your knowledge of methods and to gain an understanding of how behavior can be best understood when complementary methods are used.

The Project

Each student will do a project that involves the systematic observation of social behavior in animals, preferably at the zoo. If you have strong reasons for wanting to work on animals elsewhere (e.g. parks, reserves, backyards) please see me. The Buffalo Zoo welcomes these projects and all students will be admitted free all during the semester*. In return, the zoo asks for a copy of the final report. They find the information gathered by students very helpful since they do not have enough staff to gather it all themselves.

The hardest part of the project is getting started--picking the animals to be watched, choosing a question to be asked, and finding ways to answer that question with reliable data. There is a great temptation to put off all these decisions until late in the semester, but this usually results in a rushed and sloppy job. Also, the project may only begin to become fun when time runs out. Please begin work on it as soon as possible.

*I will arrange for all students who are registered for this course on the first day of class to be admitted to the zoo free from the beginning of the semester. Give your name to the person at the service gate and tell them you are doing a project for my class, and that your admission has been arranged through the General Curator, Jerry Aquilina. If you register for the class after the first day, I will not be able to make arrangements until about two weeks into the semester. After two weeks, I will ask you to turn in a schedule for your visits to the zoo. The zoo will need this to know when to have someone available to let you into restricted areas, if necessary. It is very important that you stick to this schedule. If you can't make it occasionally and need to schedule an extra visit, you will need to call ahead to let the zoo know. This is essential if we are going to continue to have a good relationship with the zoo.

In order to help you get started, I will give you a list of the more promising exhibits to work with at the zoo and demonstrate methods of observation at the zoo. Then, each student will have a chance to practice these techniques and to evaluate the relative advantages and disadvantages of each. We will also discuss how professional references on your subject are found at the University libraries, and how

to pick the "right" questions to ask about your animal.

Most students who are not put off by the initial difficulties of the project find it fun and rewarding by the end. I hope you will too.

The project is due in stages to encourage you to start on it early and to come to me with your ideas and/or problems.

1. As soon as classes begin, read the first two chapters of the Haslett Guide* and the first three chapters of Martin & Bateson.* Begin to think about a topic and an animal. Visit the zoo to get acquainted with the exhibits.
2. By Feb. 1st the project topic and a working list of references on the topic are due. At this point, or earlier, I can make suggestions about the suitability of the topic, appropriate methods, and further references. I must approve the topic and the reference list before you can go ahead with the project.
3. By Feb. 8th, a full project description is due. This should be a 2-3 page account of what you plan to do. Introduce the topic in a paragraph or two, citing references from the literature to explain why the topic is interesting scientifically. Then list what specific behavioral questions you plan to answer. Then go on to describe your methods. What specific behaviors will you observe? Which individual animals will you observe? What specific time-sampling methods will you use to record each behavior? When and how often will you observe? What do you expect to find? End with a revised and expanded list of references. Again, this will give me an opportunity to help at the early stages of the project. I must also approve the description before you can go ahead.
4. On April 19th and 26th, we will have student presentations.
5. Shortly after the presentations, the full project report is due. This should be written in the format and style of a professional scientific paper. Use the handbook for guidance. I will also go over this in class.

Good luck and good fun!!!

* Both readings will be provided to you.