

PRIMATOLOGY

Evolution of Primate Social Behavior

Instructor

Dr. Carson Murray Room 302, 2114 G Street cmmurray@gwu.edu 202-994-4170

OFFICE HOURS

Wednesday 2:30 – 3:30 PM weekly

Thursday 10-11 AM if you confirm via email in advance

CLASS INFORMATION

Anthropology 3411

Monday and Wednesday 4:45 – 6:00 PM, 1176 G, room 143

Teaching Assistant

Jordan Miller

2114 G Street

jam83@gwmail.gwu.edu

OFFICE HOURS

Tuesday 11 AM – 2 PM weekly

Class Synopsis

Primates represent diverse species from those with pair bonds (e.g. humans, gibbons, tamarins) to those that live in large promiscuous groups (e.g. baboons, howler monkeys). This course introduces the Order Primates and focuses on understanding why primates behave as they do. We will focus largely on the interface between behavior and ecology. Within a theoretical framework that is both comparative and evolutionary, we will explore such topics as primate sociality, foraging, female and male reproductive strategies, life histories, communication, cognition, and interactions between primates and other organisms (plants and animals) within their larger ecological communities. We will consider how basic principles of ecology can help us to understand these and other aspects of primate behavior. Finally, because most primate species are threatened or endangered, we will also consider important survival threats facing primates and strategies for their conservation. Ultimately, this course will give you a solid understanding of what it means to be a primate, and make you better aware of our own place within the Order Primates and the comparative context within which unique aspects of human behavior evolved.

Class Objectives

At the end of this course, students should be able to:

- (1) demonstrate knowledge of the defining characteristics, taxonomy, and evolutionary history of the Order Primates;
- (2) be able to apply evolutionary theory to explain variation in aspects of social and reproductive behavior in primates, within an ecological context;
- (3) demonstrate knowledge and understanding of variation in primate diets and foraging strategies, predation, ecology of female and male social relationships, and theoretical frameworks for explaining variation in primate sociality;
- (4) demonstrate knowledge and understanding of diversity in primate life history strategies, communication and cognition, interactions between primates and other organisms in the broader-scale ecological communities of which they are a part, and the conservation status of primate populations and strategies to protect them;
- (5) understand and implement methods employed in the study of primate behavior;
- (6) discuss and critically evaluate empirical studies and theoretical arguments in the current scientific literature concerning the interactions between primate ecology and behavior;
- (7) synthesize and use class content in new contexts in paper assignments and exams.

Required Texts and Reading

This course will include readings from 2 books and peer-reviewed publications that are assigned during the semester for our journal clubs. The books are available in the George Washington University bookstore. Students are responsible for downloading the primary articles from the GW electronic library; we will send citations one week in advance.

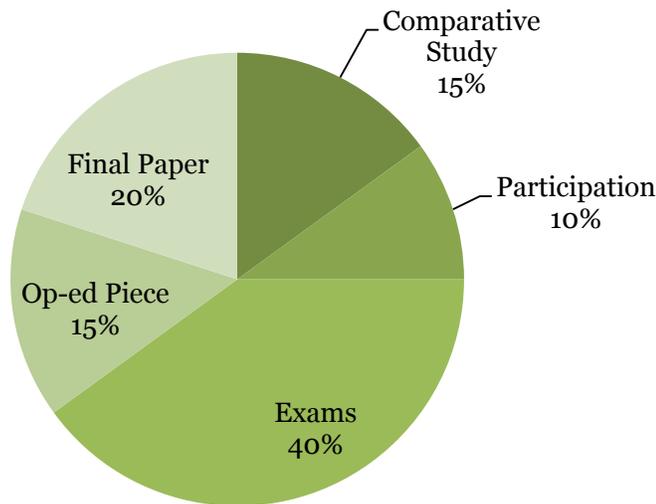
The required book for class is:

- (1) Primate Behavioral Ecology, Fourth Edition. K. Strier. 2010. Prentice Hall.
- (2) Tree of Origin. Edited by F. de Waal. 2001. Harvard University Press.

Some chapters are assigned but I recommend reading the entire book for your op-ed pieces (see assignment below).

Class Assignments

Final Grades



Exams (40% in total, 20% each)

There will be two exams during the semester. The format will include matching, short answer, and essay questions. In short answer and essay questions, you may be asked to apply course concepts to a novel situation. Those questions depend upon your ability to recall theoretical concepts and apply them to a new context. The second exam is comprehensive; I will not focus on the details from the first part of the semester but may include key concepts.

Participation (10%)

While the format of this course will include weekly lectures, a substantial portion of this class will be run as a discussion seminar and working in small groups. Such class discussions may occur informally as opportunities arise and focus on theoretical debates in primate behavioral ecology, the adaptive significance of particular behavioral phenomena in primates, or other topics addressed in lecture. Everyone is expected to complete the readings in advance, and come prepared to contribute to class discussion.

Journal Club: Beginning in the fourth week of this course, one journal article from the primary scientific literature will be chosen each week for a 'Journal Club' to be held on select Wednesdays. The purpose of our Journal Club will be to read and evaluate one article from the primary scientific literature together as a class, to deepen our understanding of key issues in primate behavior and ecology and practice our critical thinking skills. The article will be announced and made available during the prior week on Blackboard. Journal Clubs will involve both small group & whole class discussion of the article.

Given the structure of this course, we expect to hold 5 Journal Clubs during the course of the semester, although this is subject to change. They are indicated in red on the class schedule. Weekly participation in both informal discussions and journal clubs are worth a possible total of 10 points to be earned by the end of the semester.

Comparative Study (15%)

You will work with a partner to conduct a comparative study of human and non-human primate grooming patterns. Grooming is very well-studied in non-human primates and generally considered a good indicator of relationship quality and direction. How does this compare to grooming patterns in humans?

In this assignment, you will design a study that compares non-human primate patterns to those of humans. You should read primary non-human primate studies to develop a hypothesis and design an appropriate methodology for your own study. During the second week of class, I will present some standard data collection methods.

The resultant paper should have: 1) an introduction that summarizes the objective and hypothesis for your study. The introduction should also review at least 5 primate studies that were used for the basis of your hypothesis in humans, 2) a methods section that clearly explains how you collected data, 3) a results section that summarizes your data. You can use statistical analyses but comparing means is sufficient, and 4) a discussion section that summarizes your findings and then places them in the context of the primate literature.

You should plan to collect 10 hours of field data and you should design your methodology such that these 10 hours are most efficient at addressing your hypothesis. When you submit your paper, you must also send me and Jordan a copy of your raw data.

Scientific writing is succinct but each sentence is meaningful and directly relevant to your study and interpretation of your results. The paper should be single-spaced, in 12-point font, with 1" margins, and between 4-6 pages in length. Figures are included in your page count, but references are not. One paper is submitted and graded for the group.

Op-ed Piece and Debate (15%)

We cannot avoid the obvious comparisons between humans and non-human primates. As a biological anthropologist, I actually foster that comparison.

In this assignment, you should write two op-ed pieces. One should argue "Humans are just another primate along the primate continuum" and the other should argue "Humans are unique among their primate relatives."

Each piece should be no more than one page, single-spaced in 12-point font and with 1" margins. You should articulate your hypothesis at the beginning of your op-ed. You cannot focus on all aspects of behavior so just pick one behavior that illustrates your point and then draw from primary human and non-human primate examples to support your stance. Chapters in "Tree of Life" may be relevant but please also include at least 2 studies that were not covered in class or in your reading. References should be in footnotes at the end of your op-ed.

I will randomly assign you a stance in class and you will work with colleagues to argue that point in a debate. Your grade will be based on your written pieces and how well your team debates your stance.

Final Paper and Presentation (20%)

Your final paper will be a Conservation Action Plan for a critically-endangered primate species. You will write a 5-7 page action plan that includes:

- (1) A summary of your species taxonomy and geographic distribution
- (2) A summary of the current threats to your species, either directly or indirectly through threats to their habitat.
- (3) The behavioral attributes of your species (e.g. dispersal patterns, range size, foraging requirements) that put them at risk for extinction.
- (4) Your plan for fostering conservation of this species.

We will hand out a more detailed description of the assignment in class on Oct 7th and I will also present an overview of Conservation Action Planning during that class.

You will also give a short presentation on your species, threats, and plan during the week of Nov 26th and 28th. Each presenter will have 5 minutes to hit the key points.

Class Policies

Attendance

You are expected to attend each class. If the absence is un-planned, you should write your instructor on the day of the absence. More than one missed session without notification will result in a point deducted from your participation grade.

Office Hours

I am here as a resource both in and outside of class! Come see me if you have questions, during my regularly scheduled office hours. If you cannot make them, please write me in advance to schedule another time, but please understand that we all have busy schedules so I may not be as flexible as you would like.

Make-up Exams and Presentations

No regular make-up exams or presentations will be given. Rescheduling will be considered on an individual basis **prior** to the exam or presentation date. The dates for the exams are posted on the course schedule, below. Please make travel plans accordingly. If you miss an exam, documentation verifying a medical or other emergency is required.

Religious Observance

It is completely acceptable for you to miss class meeting(s) due to observance of a religious holiday, without penalty. However, it is your responsibility to look ahead on the calendar, and notify me no later than the first week of the semester (no later than September 5th) of your intention to be absent from class on the day(s) of religious observance. Please also schedule your presentations around any days on which you have religious holidays.

Academic Integrity

I personally support the GW Code of Academic Integrity, and will address violations of this code accordingly. It states: "Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information." It is your responsibility to read and understand this and other stipulations of GW's Code of Academic Integrity, and complete all class work in accordance with this code. For the remainder of the code, see: <http://www.gwu.edu/~ntegrity/code.html>

SUPPORT FOR STUDENTS OUTSIDE OF THE CLASSROOM

Disability Support Services (DSS)

Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Marvin Center, Suite 242, to establish eligibility and

to coordinate reasonable accommodations. For additional information, please refer to <http://gwired.gwu.edu/dss/>

University Counseling Center (UCC)

The Counseling Center (UCC) offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: crisis and emergency mental health consultations; and confidential assessment, counseling services (individual and small group), and referrals. You can reach the UCC at 202-994-5300. For additional information, please refer to

<http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices>

SECURITY

In the case of emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After the evacuation, seek shelter at a predetermined rendezvous location.

WEEK	DATES	TOPICS	READING & ASSIGNMENTS
1	Aug 29, 2012	Introduction to course, Introduction to Primatology	PBE, chapter 1
2	Sept 5, 2012	Primate traits & adaptive trends, Behavioral data collection	PBE, chapter 2 TO, chapter 3 Data collection exercise in class
3	Sept 10 & 12, 2012	Primate taxonomy, evolution, & diversity	PBE, chapters 2 & 3 Arrange groups for comparative study
4	Sept 15 & 17, 2012	Evolution & Social Behavior, Primate social systems	PBE, chapter 4 JC article Topics due for comparative study
5	Sept 24 & 26, 2012	Primate mating systems	PBE, chapter 5 JC article
6	Oct 1 & 3, 2012	Food & foraging	PBE, chapter 6 Exam 1 on Wed
7	Oct 8 & 10, 2012	Conservation action plans, Female strategies	PBE, chapter 7
8	Oct 15 & 17, 2012	Female strategies, Maternal behavior	PBE, chapter 9 Conservation species topic due
9	Oct 22 & 24, 2012	Male strategies	PBE, chapter 8 JC article
10	Oct 29 & 31, 2012	Evolution of paternal care and allo-parenting	JC article
11	Nov 5 & 7, 2012	Cooperation	PO, chapters 4 & 5 JC article Comparative studies due to TA by 5 PM on Wed.
12	Nov 12 & 14, 2012	Communication, Culture	PBE, chapter 10 PO, chapters 6 & 7
13	Nov 19, 2012	Community ecology	PBE, chapter 11 Op-ed pieces due to TA by 9 AM on Wed, Group debate on Wed
14	Nov 26 & 28, 2012	Student CAP presentations	PBE, chapter 12 Submit power-point for CAP to TA by 5 PM on Sun
15	Dec 3 & 5, 2012	Wrap up and Exam 2	Exam 2 on Wed