

Human Biology (HBIO) 406 Theory and Methods in Human Evolutionary Biology
Focus: Primate Cognition and Communication

Details: Wed & Fri 12-1:50pm, AHF 259

Professor: Dr. Stephanie Bogart
Office: AHF (Hancock), Jane Goodall Center, B10-B
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Office Hours: T, TH 10-11:50am, or by appointment

- E-mail is always the best way to reach me for questions or an appointment.

Course Content: The goal of this course is for you to obtain a clear knowledge of the theories and methods used to understand human evolution. This course will focus on cognition and communication of hominins and other primates. Additionally, you will learn to create a scientific hypothesis and test it by gathering behavioral data on captive primates. We will explore the use of both non-human primates and humans and the methods employed to gather data. You will learn to breakdown and disseminate the theories and methods used in cognitive research and gain experience in articulating with your peers in a discussion-based format. This course will highlight a well-rounded approach by incorporating many different disciplines, such as neuroscience, biology, psychology, and anthropology.

Course Objectives: Students will gain the opportunity for

- Developing a deeper comprehension of the central and cross-disciplinary concepts of human evolutionary biology, particularly in the field of primatology
- Identifying, exploring, assessing and solving real world problems through independent study and self-directed group and individual projects.
- Understanding and applying the scientific method and developing critical thinking skills from an evolutionary framework. Particularly in developing research methods, collecting data, and analyzing results.
- Effectively communicating evolutionary principles regarding human biology through in class discussions.
- Discussing how biology can contribute to the resolution of ethical, social, and environmental issues.

Required Textbooks:

Field and Laboratory Methods in Primatology: A Practical Guide, edited by Setchell and Curtis, 2nd edition 2011, ISBN: 978-0521142137

Measuring Behaviour: An Introductory Guide, by Martin and Bateson, 3rd edition 2007, ISBN: 978-0521535632

Grading:

- 10% - Literature search for discussion material
- 15% - Participation in seminar discussions
- 20% - Moderation of discussion
- 10% - Summary of discussion
- 45% - Primate Behavioral Research
 - 15% Research report
 - 15% Presentation
 - 15% Introduction, hypotheses, methods draft

Literature search for discussion material: A major skill to master in research is finding appropriate literature to use in research and be able to critically review and discuss it. You are given the objective to find a primary research article for one of the specified discussion sessions. A sign-up period during week 3 will allow you to choose the topic that interests you the most. You then have 2 weeks (due by week 5) to search for an appropriate resource and have it approved by Dr. Bogart, this article will then be read by the entire class for discussion. Further instructions will be provided.

Discussion Sessions: Discussion sessions have three components to complete. The first is that each of you will (1) moderate one session during the semester. This means leading the discussion by offering your critical evaluations of the assigned readings. This does not mean simply rephrasing or summarizing the content of the papers. It is highly recommended that you provide discussion questions to students so they can prepare for discussions (to be posted on blackboard). Second, everyone will be graded individually on their (2) participation during discussions and all students **MUST** read the assigned articles. Finally, each meeting will have one person charged with (3) summarizing the important points of the discussion that day. This should generally not be longer than a page (single-spaced). Summarizers should link ideas and views with the people who offered them. The summarizer should identify and highlight the following: the 3 most important ideas presented (and explain why) and the best quote of the day (linked to the person who generated it). The summary is due the Monday following the discussion.

Research: The majority of your grade is based on your primate behavioral research project. You will be required to have a one-on-one meeting with Dr. Bogart to discuss your areas of interest and plan out what you would like to research. *Group projects are accepted (no more than 2 students)*. You will consider a particular question and hypothesis to observe captive primates and obtain behavioral data. You will find relevant scientific articles that will provide you with context on the topic for your introduction and questions. A draft of your introduction (with citations and references), questions/hypotheses, and methods will be due week 8. The mandatory fieldtrip to the LA Zoo is tentatively scheduled for week 11 to collect your data. You will then present your research in a 10-15 minute lecture the final week of classes (this means you must be concise). Your final written report is due the week of finals. It is also *recommended* to check in with me periodically in brief meetings throughout the semester for help in collecting resources and developing the logistics of your research.

Absence: If you have a legitimate (documented) reason for an absence on a discussion day, please contact me within 24 hours of the class to discuss a make-up option for your participation points. Un-excused absence for discussion participation will result in a zero grade. Absence on the day of your assigned moderation or summarizing is **unacceptable** and will result in a grade of 0. A sign-up will be posted on Blackboard for Moderators and Summarizers, so you should plan accordingly with your schedules.

Late Assignments: Students who submit work up to one week late will receive a penalty of 10% applied to the grade achieved on the late assignment regardless of the day of the week on which the work is submitted. Students who submit the project more than one week late will receive a grade of 0 unless they have made prior arrangements with the instructor.

SCHEDULE (*Subject to revision*)

	Topic	Readings
Week 1: Jan 10 & 12	Introduction and Primate traits	FLMP 1, 2, 11
Week 2: Jan 17 & 19	Methods: wild primates, habituation	MB 1-3
	Behavioral data collection	MB 4-6
Week 3: Jan 24 & 26	Brain anatomy and species comparisons	
	Methods: Mapping brain, captive training	
Week 4: Jan 31, Feb 2	Reliability and design	MB 7&8
	Fri: Discussion: Ethics (professor leads) Fri: Article approval due	FLMP 2
Week 5: Feb 7 & 9	Methods: Camera trapping & GPS/GIS	FLMP 4 & 17
	Methods: Feeding ecology	FLMP 12-14
Week 6: Feb 14 & 16	Cognition: Learning	SPL
Week 7: Feb 21 & 23	Cognition: Culture	SPL
Week 8: Feb 28, Mar 2	Cognition: Tool use for feeding	SPL
	Intro, hypotheses, methods draft DUE	
Week 9: Mar 7 & 9	Cognition: Memory & Recognition	SPL
Week 10: Mar 14 & 16	Spring Break – NO CLASS	
Week 11: Mar 21 & 23	Primate Conservation	
	FRI: ZOO Fieldtrip	
Week 12: Mar 28 & 30	Communication Introduction	FLMP 16 & 17
	Communication: Monkeys	SPL
Week 13: Apr 4 & 6	Statistics and Analyses	MB 9-11
	Communication: Apes	SPL
Week 14: Apr 11 & 13	Communication: Language	SPL
Week 15: Apr 18 & 20	Synthesis and research prep	FLMP 22
Week 16: Apr 25 & 27	Research presentations	
Report due Friday, May 4th 11am		

SPL – student provided literature (see Literature search for discussion material)

USC's Statements on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

