

Primate Research Methods and Field School Syllabus

Upper Division Undergraduate HIP Course



Instructor: Alexandra Sheldon (she/her)

My Office:

Office Hours:

In this course we will explore different topics in primate research and hopefully one or more of these areas will spark your interest and you will want to know more! You'll search for published information about the topic of your choice to learn more about has been researched and what still needs investigating. You will use this research to come up with some questions you would like to explore while in the field. We will also talk about ethics as it relates to research, being in the field, studying animals and working around other human beings. I believe that the way we treat fellow researchers and the people, animals and plants living around our field site is just as important, if not more important, than the research we do and the data we collect.

Never been in the field before? Not sure if field research is for you? No problem! This is a great way to explore field work to see what you think. And before we go to the field, we will practice data collection techniques, talk about what to expect and hear from a panel of students and professors who have done field research before so you can get the lowdown on what field work is actually like.

Goal: Students will consider how and why we conduct primatological research while developing their identity and skills as a primatologist.

Objectives

1. Examine a variety of ethics statements and suggestions to formulate a personal research ethic.
2. Conduct a literature review and write an annotated bibliography on a research topic of the student's choosing.
3. Learn and practice behavioral data collection methods.
4. Formulate a research project including planning the budget, background research, data collection and dissemination of information.
5. Practice presenting research findings to a variety of audiences.

HIP strategy: undergraduate research, diversity/global learning

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Core Readings

1. Altmann, J. (1974). Observational study of behavior: sampling methods. *Behaviour*, 49(3-4), 227-266. (free - download PDF on Blackboard under Course Materials)
2. Amano T, González-Varo JP, Sutherland, WJ (2016) Languages Are Still a Major Barrier to Global Science. *PLoS Biol*, 14(12): e2000933. (free - download PDF on Blackboard under Course Materials)
3. [Bezanson, M, McNamara, A. The what and where of primate field research may be failing primate conservation. *Evolutionary Anthropology*. 2019; 28: 166– 178.](#) (free - download PDF on Blackboard under Course Materials)
4. [de Vos, Asha. The problem of “colonial science.” \(2020\). *Scientific American*.](#) (free - download PDF on Blackboard under Course Materials)
5. [It's time to stop lionizing Diane Fossey as a conservation hero. \(2019\). *Lady Science Blog*.](#) (free - link on Blackboard under Course Materials)
6. Sept, J. M., & Brooks, G. E. (1994). Reports of chimpanzee natural history, including tool use, in 16th-and 17th-century Sierra Leone. *International Journal of Primatology*, 15(6), 867-878. (free - download PDF on Blackboard under Course Materials)
7. Setchell, J. M., & Curtis, D. J. (Eds.). (2011). *Field and laboratory methods in primatology: A practical guide*. Cambridge University Press. (\$60 to buy new, \$34 to buy used; also available free online through the library's website)
Written as S&C in the schedule below
8. Setchell, J. M. (2019). *Studying primates. How to design, conduct and report primatological research*. Cambridge University Press. (\$35 to buy new, \$21 to buy as an ebook; also available in the university library reserves - you can't check it out but you can read it in the library, ask the librarian at the Reserves Desk on the first floor to get it for you)
9. Strier, K. B. (2017). What does variation in primate behavior mean?. *American Journal of Physical Anthropology*, 162, 4-14. (free - download PDF on Blackboard under Course Materials)
10. [“Statistical Significance Is Dead - Let's Embrace Uncertainty” by University of Basel Department of Clinical Research](#) (free - link on Blackboard under Course Materials)
11. The Familiar Strange Podcast, episode #33: Getting ready for the field: themed panel with Dr. Siobhan McDonnell (free - link on Blackboard under Course Materials)

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Course Requirements

Possible Topics	5%
Research Questions	5%
Literature Review	10%
IACUC certification	5%
Methods	5%
Sample Budget	10%
Ethogram	5%
Final Research Proposal	10%
Code of Conduct	10%
Data Analysis	5%
Final Poster/Talk	10%
Attendance in class	10%
Conduct in the field	10%

Below are brief descriptions of each of the assignments you will do for this class. We will peer review many of these assignments in class, allowing you to get feedback from your classmates and improve your work. You will also receive feedback from me after you have submitted your assignment. Additional information, examples, rubrics and other information for each assignment is available on the course website.

Research Questions – due Week 5

Brainstorm some research questions that you would be excited and interested to research in the field. These questions should be based off the reading you have done on your topic of interest (in preparation for your literature review) and reflect what questions remain to be investigated. We will peer review the questions in class so you can get feedback and ideas from the class.

Literature Review - due Week 6

The purpose of the annotated bibliography is for you to explore research related to the topic of your choice, to become more familiar with the primatology literature and to begin thinking about your own research proposal. Think about what questions have been asked and answered about your topic and also what questions still need answers. The annotations allow you to demonstrate an understanding of the sources and will serve as a summary of each source that you can quickly reference throughout the semester when working on other assignments.

IACUC Certification – due Week 6

Any time you are studying animals, you will need to get approval from your university's Institutional Animal Care and Use Committee (normally called IACUC – pronounced eye-ah-cook). Before you can submit a research proposal to the IACUC, you need to go through a brief online IACUC training and pass a series of quizzes.

Methods – due Week 7

Once you know what questions you want to investigate in the field, you need to determine how you will investigate them – what types of data do you need to collect? What tools do you need? How much data will you collect and from how many individuals? Your methods should outline all of this in detail and serve as a “recipe” for data collection so that other researchers can understand what you did and replicate your study.

Sample Budget - due Week 8

Once you have a research design, you will investigate equipment and other costs required for the type of research you are proposing. The purpose of the budget proposal is for you to think in

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detail about all of the expenses involved in your proposed project and what the total cost may be. You may find that you want to adjust your research proposal while working on your budget proposal which is totally fine!

Research Proposal - due Week 10

The purpose of the research proposal is for you to apply the information you have been reading in the literature review and what has been discussed in class about primate research to a proposal of your own. You will submit an initial version of the proposal, receive feedback from me and your peers and then make any adjustments before we head into the field.

Your research proposal should consist of: Literature review, 2 research questions, Methods, Ethogram, Budget and IACUC certification. Be sure to incorporate comments from peers and me into revised versions of each of these components of your research proposal.

Data Analysis – due Week 16

You have collected your data and returned from the field. Congratulations! But your work is not done. What does all that data tell us about your questions? You will sort and examine your data to see if you can find any trends, patterns or interesting observations. What can you say about your questions based on the data you collected and what data do you still need to fully answer them?

Poster or Talk - due during designated Finals meeting day/time

Often, researchers will present their findings from a research project at a professional conference in the form of a poster presentation or paper presentation (a talk, typically with powerpoint slides). You will prepare either a poster or talk to present your research design, budget and expected findings.

The purpose of this assignment is for you to practice creating a poster or preparing for a talk and delivering a clear, concise presentation about your research. The skills of designing a poster or talk and clearly presenting information is a skill that is applicable to any profession.

Students who choose to make a poster should prepare a 7-10 minute explanation of the components of the poster. Students who choose to prepare a talk should prepare a 7-10 minute talk that should include powerpoint slides. We will host a research symposium during finals week where our fellow students, faculty and university staff can come listen to our talks and poster presentations.



Emperor tamarin (*Saguinus imperator*) male and baby in Peru.

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Course Policies

Late Work: I will not accept late assignments unless prior arrangements have been made with me. Acceptable reasons for needing to turn in an assignment late include medical, legal, university-sponsored travel and bereavement. You must make arrangements with me prior to the due date of the assignment except in the case of emergencies. Documentation is required.

Extra Credit: There is no scheduled extra credit however if opportunities become available, every student in class will have the same opportunity to earn the same points.

Attendance: In Class: Attendance is an important part of learning and will count for 10% of your final grade. However, some weeks you might need a break. Therefore, you may miss 2 class periods without consequence, no explanation needed and no questions asked. You are exempt from any assignments and/or readings due the day you decide to miss class but you are responsible for the content from the assignments, class and readings since you might find it useful down the road. If you miss a class period where an assignment is due that is part of the research proposal, you are exempt from turning it in on the day you miss class but you **MUST** include it as part of your total research proposal.

After missing 2 class periods, you will lose one point for each additional class period missed, unless prior arrangements have been made with me. Acceptable reasons for missing class beyond the 2 allowed misses include medical reasons, legal reasons, university-sponsored travel and bereavement. Please let me know you will be missing class before the day of the class, unless it's an emergency. You must provide documentation for any classes missed beyond the 4 allowed misses.

Conduct In the Field: Since we are only in the field for a short time, it is important for you to collect as much data as you can, which means going into the field on all of the scheduled field days. Attendance in the field also includes attending the scheduled classes, volunteer opportunities and other activities we will have planned. If you need a break from fieldwork, talk to me and we can come up with a modified schedule together.

Conduct in the field includes behaving ethically, following the code of conduct we create as a class and doing your best work in the field. We will write a code of conduct before we go into the field that we all agree to follow.

Academic Integrity: Integrity is essential for the members of any group, whether at school, work or in the community. I take academic integrity very seriously and adhere to the university guidelines (linked here). We will talk about integrity throughout the semester as it relates to college, anthropology, science and field work. If you're ever not sure about something, just ask me! We are all here to learn.

Use of Technology: We will craft a technology policy together in class during the first class meeting and will ratify it during the following class meeting. I will put the text here in an updated version of the syllabus once we all agree on a policy. The policy we craft together will also include consequences for violating the policy.

Classroom Behavior: We will craft a behavior policy together in class during the first class meeting and will ratify it during the following class meeting. I will put the text here in an updated version of the syllabus once we all agree on a policy. The policy we craft together will also include consequences for violating the policy.

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Calendar of Major Events

Week	Day	Topic	Due In Class	Readings (do before class)	In Class Discussion/ Activity	Assignments other than readings (due the following class)
1	Tues.	Intro to Class & Field Site	N/A	N/A	-Introduce field site; -Review plan and calendar for the semester	
	Thurs.	History of Primate Research	N/A	Setchell Ch. 7 <i>Introduction to the Primates</i>	- Begin overview of primate research - How to pick a research topic?	Search for peer-reviewed sources pertaining to your topic of interest - get an idea of what research is available
2	Tues.	Overview of research areas in primatology I	Possible topics of interest (brainstorm)	Sept & Brooks (1994)		
	Thurs.	Overview of research areas in primatology II		S&C <i>Intro</i> ; Setchell Ch. 1 <i>Asking Questions about Primates</i> ; Setchell Ch. 8 <i>Why Study Primates?</i>	- Cont. overview of primate research - What topics interest you?	Think about what research topics interest you
3	Tues.	What is a research proposal?	Research topics brainstorm	S&C Ch. 11 <i>Field Experiments with NHP</i>	- Discuss research proposal - Look at examples	
	Thurs.	What is a literature review	Research project brainstorm	S&C Ch. 12 <i>Feeding Ecology, Frugivory & Seed Dispersal</i> ; Setchell Ch. 10 <i>Finding out What We Know</i> ; Setchell Ch. 11 <i>Reading Journal Articles</i>	- Librarian visit to explain resources, research, citations	What kind of research interests you? Literature Review due Week 6
4	Tues.	Blood, Hair, Feces and Urine		S&C Ch. 20 <i>Field Endocrinology</i> ; S&C Ch. 21 <i>Collection, Storage & Analysis of genetic material</i>	- What is peer review?	Questions for panel

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	Thurs.	Panel - Research proposal process	Questions for panel discussion	Setchell Ch. 12 <i>Formulating Hypotheses and Predictions & Designing a Study</i>	- IACUC board member visit - explain IACUC proposal and IACUC review process	2 research questions; IACUC Certification due Week 6
5	Tues.	It's Not Just About the Primates	2 Research Questions*	S&C Ch. 4 <i>Habitat Description & Phenology</i> ; S&C Ch.6 <i>Monitoring Local Weather and Climate</i>	-Responsible field work; -Research ethics - animals and humans;	
	Thurs.	Plants, Food and Bugs		S&C Ch. 13-14 <i>Dietary Analysis I & II</i>	- <i>Research Questions returned with comments</i> -Expectations, rules, choices at our field site -History of the country, region, people around field site	
6	Tues.	Research Methods I	Literature Review* ; IACUC Certification*	S&C Ch. 16 <i>Recording Primate Vocalizations</i> ; S&C Ch. 17 <i>Photography & Video</i>		Methods due Week 7
	Thurs.	Research Methods II		Setchell Ch. 14 <i>Choosing Measures</i> ; Setchell Ch. 15 <i>Planning Data Analysis</i> ; Setchell Ch. 18 <i>Writing a Research Proposal</i>	- <i>Lit review returned with comments</i> - Peer review literature review - Altmann (1974)	Questions for panel
7	Tues.	Real Talk about Field Work	Questions for panel	Setchell Ch. 9 <i>Identifying a Research Question</i> ; Setchell Ch. 13 <i>Observing and Manipulating</i>	Field work panel	Identify 2 granting agencies and grant requirements
	Thurs.	Budgets	Methods* ; 2 grant	Setchell Ch. 19 <i>Collecting Data</i>	- Peer review methods	Sample ethograms from lit review;

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			requirements			Budget due Week 8
8	Tues.	Ethograms	Sample ethograms	S&C Ch. 4 <i>GIS and Remote Sensing</i> ; S&C Ch. 6 <i>Survey & Census Methods</i>	-Methods returned with comments - Line transect and Census activity; - Inter-observer reliability	Ethogram due Week 9
	Thurs.	Ethics I	Budget*	Amano et al. (2016); Setchell Ch. 2 <i>Ethics in Primatology</i> ; Sechell Ch. 4 <i>Inclusive Science</i>		Find ethics 2 statements from researchers, organizations, universities, labs, etc.
9	Tues.	Ethics II	Ethogram* ; Ethics statements	de Vos (2020); Setchell Ch. 3 <i>Keeping Science Healthy: Research Integrity</i>	-Class co-drafts field site code of conduct/expectation s that everyone agrees to abide by; -Review examples of codes from other sites, conferences (AAPA, etc.) to get ideas	Code of conduct rough draft
	Thurs.	Making Connections		S&C Ch. 1 <i>Ethnoprimateologica l Approach</i>	Finalize code of conduct	
10	Tues.	Conservation	Research Proposal	S&C Ch. 2 <i>Habituating Primates</i> ; Bezanson & McNamara (2019)		
	Thurs.	De-Colonizing Primatology & the Future		Setchell Ch. 17 <i>Checking Feasibility & Finalizing Plans</i>	-Peer review research proposal	Modify research proposal based on peer review and comments
11	Tues.	Prep for travel	Modified Research Proposal	S&C Ch. 22 <i>Tips from the Bush</i> ; Setchell Ch. 20 <i>Conducting Fieldwork</i>	Familiar Strange Podcast	
	Thurs.	No class: Travel to Field Site				
12	We're in the Field!					

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13	We're in the Field!					
14	Tues.	No class: Travel Home from Field Site				
	Thurs.	Interpreting your Results		Setchell Ch. 5 <i>Understanding Statistical Evidence</i>		
15	Tues.	What is a poster? What is a talk?		Sechell Ch. 24 <i>Presenting Your Work at a Setchell</i> Ch. 6 <i>Communicating Ideas in Writing</i> ; Setchell Ch. 22 <i>Writing a Scientific Report</i>		- Prepare part or all of poster/talk to workshop
	Thurs.	Workshop	- Part or all of poster/talk for workshop	Sechell Ch. 24 <i>Presenting Your Work at a Conference</i> ; Setchell Ch. 23 <i>Submitting to a Peer-reviewed Journal</i>	- Practice talks, posters and/or peer review ideas or sections	Final poster or talk due during finals
Final	TBD	Poster and talks presented during symposium				

*These Assignments are part of the Research Proposal; you will have peer review and professor comments on each part before submitting the final poster/talk during finals week.