

Methods in Primate Biology

ANT 347C (31725)

SPRING 2019

LECTURE: Mondays 1-2 PM SAC 4.120
LABS: Wednesdays 2-5 PM SAC 4.120 and offsite

INSTRUCTOR: Aaron Sandel (goes by Dr. Sandel; pronoun: he/him/his)
Office: SAC 5.140
Phone: (512) 471-7530
e-mail: aaron.sandel@austin.utexas.edu
Office hours: Mondays 2-4 PM & by appointment

TEXTS: Required:
Analyzing Animal Societies by Hal Whitehead (2008)

Recommended:
Measuring Behaviour by Martin & Bateson (3rd ed) (2007)

Additional readings will be available on Canvas

ABOUT DR. SANDEL

The focus of my research is the behavior and physiology of wild chimpanzees in Kibale National Park, Uganda. I study social relationships formed between male chimpanzees during adolescence and young adulthood, the social network of the entire community, and markers of growth and stress during development. I am also interested in a variety of topics related to the evolution of animal behavior.

COURSE DESCRIPTION:

This course focuses on the study of primate behavior and the methods by which animal behavior is observed and documented. You will learn how to formulate hypotheses and predictions, devise research projects designed to test these predictions, collect data, and write comprehensive scientific research reports describing your results. You will gain familiarity with some widely-used technologies that facilitate wildlife studies (social network analysis, GPS mapping, visualization of spatial data).

Working around a specific research question, **individual students will design their own behavioral study**, develop and implement a sampling protocol, and collect their own primary data, which they will then analyze and discuss. The final project for this course will involve (1) a presentation to your peers in a conference environment, and (2) a written, comprehensive scientific report.

Expectations: *This course carries a Writing Flag. Writing Flag courses are designed to give students experience with writing in an academic discipline. In this class, you can expect to write regularly during the semester, complete substantial writing projects, and receive feedback from your instructor to help you improve your writing. This course is a substantial writing course. You will be expected to write multiple papers. There are no tests, so you can spend ALL your time devoted to working on the papers. Please plan accordingly.*

This course also carries an Independent Inquiry Flag. Independent Inquiry Flag courses are designed to give students experience with designing and undertaking significant research or creative work, either independently or in collaboration with others, over the course of a semester. In this class, you can expect to implement an original behavioral research project from start (project design) to finish (written and oral presentation of your project to the professor and to peers). You should therefore expect a substantial portion of your grade to come from the independent investigation and presentation of your own work. Again, there are no tests, so you can spend ALL your time devoted to working on the research project.

Finally, this course also carries a Quantitative Reasoning Flag. Quantitative Reasoning Flag courses are designed to teach students “how to use logical, numerical, and/or statistical arguments and models and to understand the reasoning behind them.” Such skills are central to scientific research, and the data analysis and interpretation you will do as part of your work in this class addresses these skills directly.

COURSE REQUIREMENTS:

Prerequisite: ANT 346L, 346M, or Biology 359K

The lab component of this class will start off in SAC 4.120. As the course progresses, we will spend this time observing animals on campus and at times off campus. Once students develop their projects, this time will be **devoted to independent research**.

ASSIGNMENTS AND GRADING:

During the course of the semester, you will be conducting a series of exercises and research projects. ***Keep in mind that this course requires a substantial amount of time outside of class conducting library research, analyzing data, and writing research reports.*** All due dates are firm and are on the accompanying schedule.

Assignments are due at the beginning of class on the due date. All late papers will be lowered by a half letter grade for each day that they are late.

| Assignment | Percent of Grade |
|--|-------------------------|
| Writing Assignments | |
| Preliminary Library Research Paper | 5% |
| Re-write Preliminary Library Research Paper | 5% |
| Sampling Methods Research Report | 10% |
| Draft of Research Report | 20% |
| Final Research Report | 15% |
| Quantitative Reasoning | |
| Intro to modeling in R | 5% |
| Analysis of variance and linear modeling | 5% |
| Social network analysis assignment | 5% |
| (Note: writing assignments, including the Research Report, which comprises 35% of the grade) will require additional statistical modeling) | |
| Attendance & Participation | 15% |
| <u>Presentation</u> | <u>15%</u> |

COURSE SCHEDULE/TOPICS

1. Introduction to ethology or the study of animal behavior
2. Primate behavior and cognition
3. The scientific methods: questions, hypotheses, and predictions
4. Behavioral sampling methods
5. Survey and census techniques
6. Habitat plots and ecological sampling
7. Nutrition and non-invasive sampling
8. Social network analysis
9. Proposing a research project
10. Scientific writing 1
11. Pilot data collection
12. Statistics and data analysis 1: Introduction to R
13. Data organization and troubleshooting
14. New technologies in animal behavior (camera traps, drones, etc.)
15. Statistics and data analysis 1: linear models and analysis of variance in R
16. Peer review
17. Genetics and hormones in animal behavior
18. Scientific writing 2
19. Presentations
20. On the aims and methods of animal behavior for the 21st century

Student Rights & Responsibilities

- You have a right to a learning environment that supports mental and physical wellness.
- You have a right to respect.
- You have a right to be assessed and graded fairly.
- You have a right to freedom of opinion and expression.
- You have a right to privacy and confidentiality.
- You have a right to meaningful and equal participation, to self-organize groups to improve your learning environment.
- You have a right to learn in an environment that is welcoming to all people. No student shall be isolated, excluded or diminished in any way.

With these rights come responsibilities:

- You are responsible for taking care of yourself, managing your time, and communicating with the teaching team and with others if things start to feel out of control or overwhelming.
- You are responsible for acting in a way that is worthy of respect and always respectful of others.
- Your experience with this course is directly related to the quality of the energy that you bring to it, and your energy shapes the quality of your peers' experiences.
- You are responsible for creating an inclusive environment and for speaking up when someone is excluded.
- You are responsible for holding yourself accountable to these standards, holding each other to these standards, and holding the teaching team accountable as well.

Names and Personal Pronouns

To have a productive learning environment, it is important that I get to know you and you get to know your fellow students. This means learning everyone's names. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by a name different than what appears on the roster, and by your gender pronoun. Please advise me of this early in the semester.

UNIVERSITY POLICIES

Academic Integrity

Each student in the course is expected to abide by the University of Texas Honor Code: “As a student of The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity.” **Plagiarism is taken very seriously at UT.** Therefore, if you use words or ideas that are not your own (or that you have used in previous class), you must cite your sources. Otherwise you will be guilty of plagiarism and subject to academic disciplinary action, including failure of the course. You are responsible for understanding UT’s Academic Honesty and the University Honor Code which can be found at the following web address: http://deanofstudents.utexas.edu/sjs/acint_student.php

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Q Drop Policy

If you want to drop a class after the 12th class day, you’ll need to execute a Q drop before the Q-drop deadline, which typically occurs near the middle of the semester. Under Texas law, you are only allowed six Q drops while you are in college at any public Texas institution. For more information, see: <http://www.utexas.edu/ugs/csacc/academic/adddrop/qdrop>

University Resources for Students

Services for Students with Disabilities

This class respects and welcomes students of all backgrounds, identities, and abilities. If there are circumstances that make our learning environment and activities difficult, if you have medical information that you need to share with me, or if you need specific arrangements in case the building needs to be evacuated, please let me know. I am committed to creating an effective learning environment for all students, but I can only do so if you discuss your needs with me as early as possible. I promise to maintain the confidentiality of these discussions. If appropriate, also contact Services for Students with Disabilities, 512-471-6259 (voice) or 1-866-329- 3986 (video phone). <http://ddce.utexas.edu/disability/about/>

Counseling and Mental Health Center

All of us benefit from support during times of struggle. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful. If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. <http://www.cmhc.utexas.edu/individualcounseling.html>

The Sanger Learning Center

All students are welcome to take advantage of Sanger Center’s classes and workshops, private learning specialist appointments, peer academic coaching, and tutoring for more than 70 courses in 15 different subject areas. For more information, please visit <http://www.utexas.edu/ugs/slc> or call 512-471-3614 (JES A332).

Important Safety Information:

If you have concerns about the safety or behavior of fellow students, TAs or Professors, call BCAL (the Behavior Concerns Advice Line): 512-232-5050. Your call can be anonymous. If something doesn’t feel right – it probably isn’t. Trust your instincts and share your concerns.

Title IX Reporting

Title IX is a federal law that protects against sex and gender-based discrimination, sexual harassment, sexual assault, sexual misconduct, dating/domestic violence and stalking at federally funded educational institutions. UT Austin is committed to fostering a learning and working environment free from discrimination in all its forms. When sexual misconduct occurs in our community, the university can:

Intervene to prevent harmful behavior from continuing or escalating.

- Provide support and remedies to students and employees who have experienced harm or have become involved in a Title IX investigation.
- Investigate and discipline violations of the university's relevant policies.
- Faculty members and certain staff members are considered "Responsible Employees" or "Mandatory Reporters," which means that they are required to report violations of Title IX to the Title IX Coordinator.
- **I am a Responsible Employee and must report any Title IX related incidents** that are disclosed in writing, discussion, or one-on-one. Before talking with me, or with any faculty or staff member about a Title IX related incident, be sure to ask whether they are a responsible employee.
- If you want to speak with someone for support or remedies without making an official report to the university, email advocate@austin.utexas.edu For more information about reporting options and resources, visit titleix.utexas.edu or contact the Title IX Office at titleix@austin.utexas.edu.

The following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512- 471-5767, <http://www.utexas.edu/safety/>

- Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building. And that the nearest exit may be behind you.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors. Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
- Link to information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency

Additional Resources:

Undergraduate Writing Center: <http://uwc.utexas.edu/>

Libraries: <http://www.lib.utexas.edu/>

ITS: <http://www.utexas.edu/its/>

Student Emergency Services: <http://deanofstudents.utexas.edu/emergency/>

