Bioanthropology Methods (ANTH 487/587)
Winter 2018

Class Time & Location: Tuesdays 6-8:50pm in 204 Condon Hall

Instructor: Dr. Kirstin N. Sterner
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Office Hours: Thursdays from 2pm to 4pm, & by appointment

Prerequisites
ANTH 270 Introduction to Biological Anthropology or permission of the instructor is required to enroll in this course (undergraduates only). This course is intended for upper-level undergraduates and graduate students.

Course Description
This course provides an overview of research methods used in biological anthropology. In this course students will learn the fundamentals of designing and conducting biological anthropology research and learn how to write a competitive research proposal.

Learning Objectives
By the end of this course students will be able to:

1. outline and explain the steps of the scientific method
2. describe methods commonly used in biological anthropology research
3. develop a research project by applying the scientific method to a specific research question
4. use newly acquired grant writing skills to write an NSF-style research proposal

Course Content
The course will introduce students to the process of research design, data analysis, and interpretation. Individual class meetings will involve discussion of various methods for assessing human/primate evolution and adaptation and when possible, hands-on application of laboratory techniques.

Course Format
Informal lectures followed by directed discussion and/or hands-on laboratory exercises.

Required Readings
All readings will be available online (Canvas). Please see **Pages** for weekly reading assignments. Readings should be completed before arriving to class on the day they are listed.

Classroom Etiquette
Help make this an intellectually safe and friendly environment by respecting others in the class. Along these lines, please:

- arrive for class on time and read all articles before the start of each class.

- do not interrupt someone speaking in class.
- silence or turn off your cell phone during class.
- never text, instant message or surf the web during class. In addition to being disrespectful and distracting to others, it will cost you your participation credit for the day.
- never record (audio or video) any part of the lectures or discussions unless you have my permission.

Evaluation Criteria
Your grade in the course will reflect class attendance, participation in discussions, participation in in-class activities, completion of 5 homework assignments, and completion and presentation of a research proposal. Participation in class discussion is required and very important for your grade in this course. If you are having trouble, come to my office hours or talk to me after class. See **Grading Statement** (below) for an explanation of what each letter grade requires.

Class Attendance & Participation	15%
Homework Assignments (5 @ 3% each)	15%
Research Proposal Topic **(Due: Jan 30th)**	5%
Res. Question/Hypotheses **(Due: Feb 20th)**	15%
Presentation of Research Proposal **(March 13th)**	10%
Research Proposal **(Due: March 20th)**	40%

Students are expected to fully participate in class discussions and exercises and to have read the required readings by class time. Due to the inclusion of in-class activities, class attendance is critical. Therefore, make-ups will only be available under extraordinary circumstances. If you have an excused absence you should notify me before class.

The class will culminate in the production of a NSF-style proposal for an original research project using methods learned in this course. Undergraduates will be required to submit a 10-page (double-spaced) proposal, while graduate students will write a longer (20-page, double-spaced) research proposal that includes additional sections (e.g., budget and CV). All students will propose a topic, provide sufficient background to show the topic to be important and interesting, propose methods for collecting and analyzing data, and discuss the significance of the project. Examples of NSF grant proposals are available on Canvas. Prior to handing in their proposal, students will present their research to the class. **Proposal Guidelines** will be made available during Week 2.

Assignments must be turned in at the scheduled time - **under no circumstances will assignment extensions be given without a documented excuse**. If you will not be able to turn in an assignment at the designated time, you must notify me in advance (preferably by e-mail).

Appropriate accommodations will be provided for students with documented disabilities. If you have a documented disability and anticipate needing accommodations in this course, please

make arrangements to meet with me as soon as possible. Please bring a notification letter from Disability Services outlining your approved accommodations.

Grading Statement for Undergraduates
Grades will be assigned as follows: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F < 60% (with minus and plus grades assigned at appropriate cutoffs).

A+ Quality of student's performance significantly exceeds that of an A. Very few, if any, students receive this grade in a given course.

A Outstanding performance relative to that required to meet course requirements; demonstrates both mastery of course content & coursework quality at the highest level.

B Performance that is significantly above that required to meet course requirements; demonstrates both mastery of course content & coursework quality at a high level.

C Performance that meets the course requirements in every respect; demonstrates adequate understanding of course content and coursework quality.

D Performance that is at the minimal level necessary to pass the course but does not fully meet the course requirements; demonstrates marginal understanding of course content and coursework quality.

F Performance in the course, for whatever reason, is unacceptable and does not meet the course requirements; demonstrates inadequate understanding of the course content and coursework quality.

Course Schedule and Assignments

Week	Date	Topic
1	Jan 9th	Course Introduction; Research in Bio Anthropology; Research Design
2	Jan 16th	Anthropological Questions; Ethical Issues; Proposal Writing
3	Jan 23rd	Geometric Morphometrics (*Dr. Steve Frost)* **Homework Assignment 1 Due**
4	Jan 30th	Field Primatology *(Dr. Larry Ulibarri)* **Research Proposal Topic Due**
5	Feb 6th	Ethnographic Methods *(Dr. Larry Sugiyama)* **Homework Assignment 2 Due**
6	Feb 13th	Population Genetics of Wild Primates (*Dr. Nelson Ting*) **Homework Assignment 3 Due**
7	Feb 20th	Human Biology & Biomarkers (*Dr. Josh Snodgrass)* **Research Question/Hypotheses Due**

8	Feb 27th	Evolutionary Genomics *(Dr. Kirstin Sterner)* Writing and Presenting Research **Homework Assignment 4 Due**
9	Mar 6th	Bioanthropology Data Analysis (*Dr. Frances White)* **Homework Assignment 5 Due**
10	Mar 13th	**Student Presentations**
	Mar 20th	**Research Proposal Due by Noon**

This syllabus is tentative and may change during the term. It is <u>your</u> responsibility to come to class and check Canvas for updates and readings. Any changes to readings or assignments will be given in advance.