

Course content may vary to meet the needs of this class. Continued enrollment in this course implies that you have read and accepted the conditions listed in this syllabus.

SYLLABUS

ANTH 6360

Quantitative Methods and Research Design

Tuesday-Thursday: 3:00-4:15 pm

Instructor: Jacob Freeman

Email: jacob.freeman@usu.edu This is the best way to contact me

Office Location: Old Main 245B

Office Hours: Wednesday and Friday 1:45-2:45 pm

Readings

Lander, J.P. 2014. R for Everyone: Advanced Analytics and Graphics (Addison-Wesley Data & Analytics Series, Pearson)

All other relevant reading, videos, podcasts, *ecceterra* are posted on canvas and/or are available in the Library.

Course Introduction: Welcome to Quantitative Methods and Research Design in Archaeology. This course is an exciting opportunity for us to improve our quantitative literacy and design some cool research! Research methods are traditionally divided between quantitative and qualitative methods. Whether quantitative, qualitative or both, one's methods should be appropriate for one's research question. In this course, we will focus on asking research questions and identifying the appropriate quantitative methods to answer a given question. I will grade each of you individually. However, I encourage you to work together on assignments and give each other feedback. No one publishes a paper without feedback from colleagues and reviewers. Science is a public good that requires cooperation, and this course is designed to encourage cooperation as we practice quantitative skills and reasoning.

THIS IS A HYBRID COURSE. WE WILL MEET FACE-TO-FACE AND USE CANVAS. THE COURSE SCHEDULE AND ALL ASSIGNMENTS ARE POSTED ON CANVAS. If you do not have access to CANVAS, please let me know ASAP.

Course Objectives

At the end of this course, students will be able to

1. Demonstrate the quantitative skills necessary for an informed reading of the archaeological literature
2. Demonstrate the ability to design and conduct a small research project

3. Demonstrate the ability to analyze and present data relevant to answering research questions in anthropology

Pre-requisites: No prerequisites. I anticipate that many students will have little experience with statistics, programming and research design. That is why you are here. That said, this course will require a substantial commitment of time and use of computing resources, either on campus or at home.

Grading

There are 330 points possible in this course.

Grade distribution:

| | |
|---------------------|-----|
| Written Assignments | 30% |
| Exam | 10% |
| Research Paper | 50% |
| Class Exercises | 10% |

Written assignments. Each week we will have a written assignment. These assignments provide an opportunity to practice the skills and methods introduced in class and in our readings.

We will have one exam. The exam will occur about 1/2 through the course. The exam will evaluate the students grasp of basic statistical concepts, such as: sampling, effect size, interval vs. ratio variables.

Class exercises. Each student will lead one class. The student will design the content of the class in consultation with the instructor. This assignment gives each student the opportunity delve deeper into a particular method of their choosing.

Research paper. The bulk of your grade will be determined by a research paper. This is an opportunity to do something interesting and fun! All paper topics will be developed in consultation with the instructor. The paper will include three phases. (1) the prospectus phase, (2) the draft phase and (3) the feedback and revision phase.

Course Grading Scale:

| | |
|-------|---------|
| A | 100-90% |
| B | 89-80% |
| C | 79-70% |
| Other | <70% |

A Mapping of Course Objectives to IDEA Objectives

| Course objectives | IDEA objective |
|--|--|
| Demonstrate the quantitative skills necessary for an informed reading of the archaeological literature | Gaining factual knowledge (terminology, classifications, methods, trends) |
| Demonstrate the ability to design and conduct a small research project | Learning to analyze and critically evaluate ideas, arguments and points of view |
| Demonstrate the ability to analyze and present data relevant to answering research questions in anthropology | Developing specific skills, competencies, and points of view need by professionals |

The USU ACADEMIC INTEGRITY POLICY can be found at the web address below. If you have any questions about whether a behavior violates academic standards, ASK. Please do not violate the standards. As I said, science is a public good and the provision of public goods requires honesty.

<http://www.usu.edu/studentservices/studentcode/article6.cfm>

Below is the standard for academic integrity.

ARTICLE VI. University Regulations Regarding Academic Integrity

SECTION VI-1. University Standard: Academic Integrity

Students have a responsibility to promote academic integrity at the University by not participating in or facilitating others' participation in any act of academic dishonesty and by reporting all violations or suspected violations of the Academic Integrity Standard to their instructors

The Honor Pledge To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge:

I pledge, on my honor, to conduct myself with the foremost level of academic integrity.

Violations of the Academic Integrity Standard (academic violations) include but are not limited to:

- 1. Cheating: (1) using or attempting to use or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity, including working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done individually; (2) depending on the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work; (4) acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission; (5) continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity; (6) submitting substantially the same work*

for credit in more than one class, except with prior approval of the instructor; or (7) engaging in any form of research fraud.

2. Falsification: altering or fabricating any information or citation in an academic exercise or activity.

3. Plagiarism: representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes using materials prepared by another person or by an agency engaged in the sale of term papers or other academic materials.

I will do everything I can to accommodate all students. Please see disability services to obtain any necessary documentation. The web address is:
<http://www.usu.edu/drc/>