

ANTH 770 – QUANTITATIVE METHODS IN ANTHROPOLOGY

Course Description:

Introduction to quantitative methods for anthropology students. Topics include the basics of hypothesis testing, as well as understanding the appropriate test for a given problem. This course will present all the mathematical concepts and formulae so that underlying principles for the test should be clear. This course covers basic population parameters, tests of difference, correlation, and regression, as well as several multivariate exploratory techniques.

Course Learning Objectives and Outcomes:

By the end of this course, you will be able to:

- Identify and utilize basic and intermediate statistical concepts
- Use statistical software for theses and dissertations
- Understand the mathematical concepts and be able to do most of the statistics without packaged software
- Identify underlying assumptions behind all methods and when each method is appropriate

Lecture and lab

- The lectures will be composed of two elements: a lecture on each method, and a lab where students will analyze data in the classroom. Each element will take approximately one hour and I will assist the students in the data analysis over the second hour.
- Software will be available on the computers in the classroom, but each student is encouraged to load the software onto their personal laptop so that analysis of thesis/dissertation data will be straightforward.
- Lectures will be posted on WebCampus after each class.

Textbooks

Statistics in Plain English, Urden, 3rd Edition

Datasets

Datasets for each lecture/lab will be made available on WebCampus (please check before each class meeting).

Assessment

There will be several take-home problem sets (50% of the grade) plus a final exam (50%). For the final exam, I will present datasets and problems and you will have to choose the appropriate statistic(s) and determine the solution to the questions. The problem sets must be submitted to me via email.

Lecture schedule

Aug. 27 – Class introduction, installation of software, scientific reasoning, hypothesis testing

Sept. 3 – Basic population parameters

Sept. 10 - Z-scores, univariate measures of group difference

Sept. 17 - NO CLASS - ANTHRO OPEN HOUSE

Sept. 24 - ANOVA

Oct. 1 - Correlation + Chi Square

Oct. 8 - Regression (1st problem set due before class)

Oct. 15 - Principal components

Oct. 22 – Multiple regression

Oct. 29 – Discriminant function (2nd problem set due before class)

Nov. 5 – Logistic regression

Nov. 12 – Resampling

Nov. 19 – Additional multivariate methods

Nov. 27 – 3rd problem set due (no class the 26th due to Thanksgiving)

Dec. 10 3:10 p. m. - 5:10 p. m – Final Exam

Academic Misconduct – Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the

expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution.

An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the *Student Academic Misconduct Policy* (approved December 9, 2005) located at:

<http://studentconduct.unlv.edu/misconduct/policy.html>.

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Disability Resource Center (DRC) – The UNLV Disability Resource Center (SSC-A 143, <http://drc.unlv.edu/>, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you.

If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor in front of others to discuss your accommodation needs.

Religious Holidays Policy—Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor within the first 14 calendar days of the course for fall and spring courses (excepting modular courses), or within the first 7 calendar days of the course for summer and modular courses, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: <http://catalog.unlv.edu/content.php?catoid=6&navoid=531>.

Transparency in Learning and Teaching—The University encourages application of the transparency method of constructing assignments for student success. Please see these two links for further information:

<https://www.unlv.edu/provost/teachingandlearning>

<https://www.unlv.edu/provost/transparency>

Incomplete Grades - The grade of I – Incomplete – can be granted when a student has satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student's control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester for undergraduate courses. Graduate students receiving "I" grades in 500-, 600-, or 700-level courses have up to one calendar

year to complete the work, at the discretion of the instructor. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade.

Tutoring and Coaching—The Academic Success Center (ASC) provides tutoring, academic success coaching and other academic assistance for all UNLV undergraduate students. For information regarding tutoring subjects, tutoring times, and other ASC programs and services, visit <http://www.unlv.edu/asc> or call [702-895-3177](tel:702-895-3177). The ASC building is located across from the Student Services Complex (SSC). Academic success coaching is located on the second floor of the SSC (ASC Coaching Spot). Drop-in tutoring is located on the second floor of the Lied Library and College of Engineering TEB second floor.

UNLV Writing Center – One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 702-895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: <http://writingcenter.unlv.edu/>

Rebelmail – By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu. Emailing within WebCampus is acceptable.

Library statement:

Students may consult with a librarian on research needs. For this class, the Subject Librarian is (https://www.library.unlv.edu/contact/librarians_by_subject). UNLV Libraries provides resources to support students' access to information. Discovery, access, and use of information are vital skills for academic work and for successful post-college life. Access library resources and ask questions at <https://www.library.unlv.edu/>

Final Examinations – The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: <http://www.unlv.edu/registrar/calendars>

Any other class specific information - (e.g., absences, make-up exams, extra credit policies, plagiarism/cheating consequences, policy on electronic devices, specialized department or college tutoring programs, bringing children to class, policy on recording classroom lectures, etc.)