

San José State University
College of Social Sciences
ANTH235, Quantitative Methods, Section 1, Spring 2018

Instructor:	Dr. Elizabeth Weiss
Office Location:	Clark Hall 404R
Telephone:	(408) 924-5546
Email:	Elizabeth.Weiss@sjsu.edu
Office Hours:	Tuesdays 1030-1145 & 1615-1745; Thursdays 1030-1145
Class Days/Time:	Tuesdays 1800-2045PM
Classroom:	WSQ 004
Prerequisites:	Students must have successfully completed STAT 95 or equivalent.

Course Description

This course presents advanced quantitative methods with the goal of equipping students for applied anthropology research as well as the knowledge to evaluate anthropological and social scientific articles. The seminar emphasis will be on understanding statistics, creating databases, using statistical software packages, and employing proper statistics. Students will engage with hands-on use of statistical software packages and application of methods in a real-world setting through a term project and occasionally lead seminar discussions. Since this is an anthropology course rather than solely a statistical course, the focus will be on teaching students how to think about quantitative data sets in social science settings and think about the role these data play in addressing research questions. Students who have a willingness to think and a desire to learn are fully equipped to be successful in this class, regardless of any prior knowledge of statistics or math-phobias.

Course Goals and Student Learning Objectives

Course Content Learning Outcomes (LO)

Upon successful completion of this course, students will be able to:

LO1 Apply common statistical tests to analyze anthropological data sets.

LO2 Critically examine the use of statistical analyzes in anthropological arguments and published articles.

LO3 Build data sets appropriate to statistical analysis to address anthropological research questions.

Required Texts/Readings

SPSS Survival Manual, Fourth Edition. 2010. Julie Pallant. ISBN: 0335242391

Supplemental readings and articles (in PDF format) provided to students in class or through on-line access. Students will also be required to find self-identified readings for various lecture topics.

Course Requirements and Assignments

Seminar participation and preparation (1 pts/wk= 15 points): Each student is expected to attend class, bring notes on readings assigned for that day's discussion, and bring completed answers to the practice problem sets (when assigned). Students who fail to attend seminar meetings, who arrive late, or who do not substantively contribute to the discussion will not receive credit for the week.

Article analysis (2.5 pts/analysis =15 points): Each week that we discuss a particular statistical method/test, students are expected to find a relevant quantitative-based anthropology article which uses that method. These six self-identified case studies will be analyzed and students will submit short summaries (2 pages double-spaced) describing the research design, variables and sampling strategies, how the results are reported for the stats test you are highlighting, and quantitative methods of the study. The papers must be turned in each week to the instructor at the beginning of class.

SPSS lab modules (2.5 pts/module =15 points): Six times throughout the semester, students will complete statistical analysis modules that will teach the use of SPSS software. These lab activities will be started in class, but may take more time outside of class to complete. The lab paperwork must be turned to the instructor at the designated time.

Mini-projects (2x15pts=30 points): Two mini-projects will provide hands-on experience with quantitative data generation using methods of ethnographic coding and survey development. These activities are designed to be completed based on in-class practice for each activity. Full descriptions of each activity will be provided prior to each assignment.

Final project (1X25pts=25 points): The final project will provide hands-on experience with quantitative data generation using methods at least 3 aspects of statistics covered in class. Full descriptions of each activity will be provided prior to each assignment.

Total points in course=100

Grading is as followed:

A	B	C	D
97% - 100% = A+	87-89% = B+	77-79% = C+	67-69% = D+
91-96% = A	81-86% = B	71-76% = C	61-66% = D
90% = A-	80% = B-	70% = C-	60% = D-

Make-up Work

If you know in advance that you should be unable to attend a quiz or the final, it is your responsibility to contact me immediately by either e-mailing or telephoning me, leaving a message for me at the main department office, or coming by during my office hours.

Only students with a valid documented excuse will be able to take an exam late or turn in an assignment late. An assignment is deemed late if it is not turned in before the end of the class on the assigned due date. No papers will be accepted late or by email unless the assignment specifies that results should be sent via email.

University Policies

Further university policies, such as add/drop dates, academic integrity, recording class lectures, sharing or posting instructor materials, and more, can be found on <http://www.sjsu.edu/gup/syllabusinfo>. Students are expected to abide by all of these policies.

Anth 235, Section 1 / Quantitative Methods, Spring 2018, Course Schedule

Schedule is subject to change with fair notice.

All supplemental readings and article pdfs will be made available to students either through course reserve at the library, in the Anthropology office/conference room, or on-line.

Table 1 Course Schedule

Week	Date	Topics, Readings, Assignments, Deadlines
1	Jan 23	No Class
2	Jan 30	Introduction to course and quantitative research; introduction to SPSS and Pallant; <u>Lecture 1: The nature of social science research</u>
3	Feb 6	<u>Lecture 2: Quantitative Anthropology</u> —Types of data and variables, unit of analysis, samples and populations <u>SPSS Module 1, part I: defining variables, entering data</u> <u>Read: Pallant Ch 1-4, two supplemental readings (pdf), skim Chibnik 1985</u>
4	Feb 13	<u>Lecture 3: Missing Data: Anthropological Reality.</u> <u>Read: Two supplemental readings (pdf); self-identified article</u> <u>SPSS Module 1, part II: Checking for missing data, dealing with missing data</u>
5	Feb 20	Mini-project 1 <u>Lecture 4 (3): Developing Surveys and questionnaires with scales</u> <u>Read: Pallant Ch 9; two supplemental readings (pdf)</u> <u>In-class activity: practicing survey development</u>
6	Feb 27	<u>Lecture 5 (4): Descriptive statistics and analysis basics</u> —Graphs and frequency distributions, mean, standard deviation and variance, z scores, normal curve, parametric versus non-parametric <u>SPSS Module 2: Exploring your data, normality assessment</u> <u>Read: Pallant Ch. 6, 7</u>
7	Mar 6	<u>Lecture 6 (5): Comparing groups, part 1: Intro to hypothesis testing, p and significance; t-tests, Z-tests, rank order (Mann-Whitney, Wilcoxon)</u> <u>SPSS Module 3: Hypothesis testing with t-tests, rank order, and Z-tests</u> <u>Read: Pallant Ch. 10 & 17, Mann-Whitney/Wilcoxon sections (pg. 227-232); Weiss (pdf); self-identified article</u> <i>*Survey mini-projects due</i>
8	Mar 13	<u>Lecture 7 (6): Comparing groups, part 2: Analysis of variance and non-parametric equivalents (Kruskal-Wallis, Friedman), multivariate analysis</u> <u>SPSS Module: Hypothesis testing with ANOVA</u> <u>Read: Pallant Ch 18, skim 21-22, Kruskal-Wallis/Friedman sections (pg. 232-237); self-identified article</u>
9	Mar 20	<u>Lecture 8: Comparing groups, part 3: Chi-square tests</u> <u>SPSS Module: Hypothesis testing with Chi-square tests</u> <u>Read: Pallant pg. 215-221; Havlicek (pdf), self-identified article</u>
10	Mar 27	No class—Spring Break!

Week	Date	Topics, Readings, Assignments, Deadlines
11	Apr 3	Mini-project 2 <u>Lecture 9 (7): Quantitative meets Qualitative:</u> Ethnographic interviews, OCM codes, joining qualitative and quantitative research <u>Read:</u> Weisner 2012 (pdf); five supplemental readings (pdf) <u>In-class activity:</u> practicing ethnographic/visual coding
12	Apr 10	<u>Lecture 10: Exploring relationships among variables:</u> Correlation (Pearson's r, Spearman's rho), prediction, regression <u>SPSS Module:</u> Correlations <u>Read:</u> Pallant Ch 11; <i>self-identified article</i>
13	Apr 17	<u>Lecture 11 (9): Other Quantitative Data in Anthropology:</u> Historical records, unstructured/structured observation, artifactual datasets, big- data <u>Read:</u> Two supplemental readings (pdf); <i>self-identified article</i> <u>In-class presentations:</u> practicing ethnographic/visual coding <i>*Ethnographic coding mini-projects due</i>
14	Apr 24	Final Project <u>Lecture 12: Limitations to SPSS: When you need an extra statistical package.</u> <u>Read:</u> supplemental readings; Weiss (2018) (pdf); Work on final project
15	May 1	Work on final project
16	May 8	Course wrap-up Presentation of final projects by teams

Final: Thursday, May 22 at 1715-1930 → **final project due*