

**San José State University**  
**College of Social Sciences**  
**Anthropology 235 (#21349) Quantitative Methods, Section 1,**  
**Spring 2017**

<b>Instructor:</b>	Dr. Charlotte Sunseri
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<b>Office Hours:</b>	T 12:30-1:30, Th 2:45-5:45pm, or by appt.
<b>Class Days/Time:</b>	Thursdays 6:00-8:45PM
<b>Classroom:</b>	WSQ 004
<b>Prerequisites:</b>	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.

### **Departmental Objectives**

The Department of Anthropology seeks to enhance student knowledge and skills in the following areas.

#### Knowledge

1. Understanding culture as the distinguishing phenomenon of human life, and the relationship of human biology and evolution.
2. Awareness of human diversity and the ways humans have categorized diversity.
3. Knowledge of the significant findings of archaeology, cultural anthropology, and physical anthropology, and familiarity of the important issues in each sub-discipline.
4. Knowledge of the history of anthropological thought and its place in modern intellectual history
5. Comprehension of migration, colonialism, and economic integration as significant phenomenon shaping global society.

#### Skills

6. Ability to access various forms of anthropological data and literature.
7. Awareness of importance and value of anthropological knowledge in contemporary society, and the ability to apply it to social issues.
8. Knowledge of the research methods of the sub-disciplines of anthropology, and the ability to apply appropriate research methods in at least one sub-discipline.
9. Ability to present and communicate anthropological knowledge and the results of anthropological research to different audiences.

#### Professional Values

10. Knowledge of political and ethical implications of social research

### **Required Texts/Readings**

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

Supplemental readings and articles (in PDF format) made available on Canvas.

### **Course Requirements and Assignments**

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

**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 =10 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 four self-identified case studies will be analyzed and students will submit short summaries (1-2 pages single-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—no papers will be accepted late or by email.

**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—no papers will be accepted late or by email.

**Mini-projects** (3x20pts=60 pts): Three mini-projects will provide hands-on experience with quantitative data generation using methods of ethnographic coding, survey development, and spatial analysis. 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.

*Total points in course=100*

[University Policy S06-4](http://www.sjsu.edu/senate/docs/S06-4.pdf) (<http://www.sjsu.edu/senate/docs/S06-4.pdf>) states that “There shall be an appropriate final examination or evaluation at the scheduled time in every course, unless the course is on the official List of Courses in which a final is optional.”

## **Grading Policy**

A+ >99%, A 94-99%, A- 90-93 %

B+ 88-89%, B 84-87%, B- 80-83%

C+ 78-79%, C 74-77%, C- 70-73%

D+ 68-69%, D 63-67%, F <63%

## **Classroom Protocol**

- Students will be held to the highest standards of academic integrity and intellectual ethics. The chief product in the social sciences is new knowledge and original

thinking. Plagiarism is intellectually dishonest and a form of theft. It will not be tolerated and will be dealt with in accordance with university Academic Integrity Policy.

- **No** late assignments will be accepted without prior instructor approval and documented cause. Unless otherwise specified in the instructions, assignments will not be accepted by email or after the last scheduled class.
- The instructor reserves the right to adjust the syllabus, exam dates, or course content as deemed necessary to facilitate the highest achievement and performance of the class, or to explore timely topics.

### University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>

## Anth 235, Section 1 / Quantitative Methods, Spring 2017, Course Schedule

*Schedule is subject to change with fair notice.*

All supplemental readings and article pdfs available on Canvas course website.

**Table 1 Course Schedule**

Week	Date	Topics, Readings, Assignments, Deadlines
1	Jan 26	Introduction to course and quantitative research; introduction to SPSS and Pallant; <u>Lecture 1: The nature of social science research</u>
2	Feb 2	<u>Lecture 2: Quantitative Anthropology</u> —Types of data and variables, unit of analysis, samples and populations <u>SPSS Module:</u> defining variables, entering data <u>Read:</u> Pallant Ch 1-4, two supplemental readings (pdf), <i>skim</i> Chibnik 1985
3	Feb 9	<b><i>Mini-project 1</i></b> <u>Lecture 3: Developing Surveys and questionnaires with scales</u> <u>Read:</u> Pallant Ch 9; two supplemental readings (pdf) <u>In-class activity:</u> practicing survey development
4	Feb 16	<u>Lecture 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:</u> Exploring your data, normality assessment <u>Read:</u> Pallant Ch. 6, 7
5	Feb 23	<u>Lecture 5: Comparing groups, part 1:</u> Intro to hypothesis testing, <i>p</i> and significance; t-tests, Z-tests, rank order (Mann-Whitney, Wilcoxon) <u>SPSS Module:</u> Hypothesis testing with t-tests, rank order, and Z-tests <u>Read:</u> Pallant Ch. 10 & 17, Mann-Whitney/Wilcoxon sections (pg. 227-232); Weiss (pdf); <i>self-identified article</i>

Week	Date	Topics, Readings, Assignments, Deadlines
		<i>*Survey mini-projects due</i>
6	Mar 2	<u>Lecture 6: Comparing groups, part 2</u> : Analysis of variance and non-parametric equivalents (Kruskal-Wallis, Friedman), multivariate analysis <u>SPSS Module</u> : Hypothesis testing with ANOVA <u>Read</u> : Pallant Ch 18, <i>skim</i> 21-22, Kruskal-Wallis/Friedman sections (pg. 232-237); <i>self-identified article</i>
7	Mar 9	<b>No class—SCA conference.</b>

8	Mar 16	<b>Mini-project 2</b> <u>Lecture 8: Quantitative meets Qualitative:</u> Ethnographic interviews, OCM codes, joining qualitative and quantitative research <u>Read:</u> Weisner 2012 (pdf); five supplemental readings (pdf)
9	Mar 23	<u>In-class activity:</u> practicing ethnographic/visual coding
No class—Spring Break!		
10	Apr 6	<u>In-class presentations:</u> practicing ethnographic/visual coding <i>Bring your project's codes and work in progress</i>
11	Apr 13	<u>Lecture 9: Comparing groups, part 3:</u> Chi-square tests <u>SPSS Module:</u> Hypothesis testing with Chi-square tests <u>Read:</u> Pallant pg. 215-221; Havlicek (pdf), <i>self-identified article</i>
12	Apr 20	<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> <i>*Ethnographic coding mini-projects due</i>
13	Apr 27	<b>Mini-project 3</b> <u>Seminar discussion:</u> Spatial analysis (presentations of assigned articles) <u>Read:</u> Your assigned article from this list: Chalmers & Fabricius 2007 (pdf), Logan & Zhang 2004 (pdf), Goodchild et al. 2000 (pdf), Gatrell & Rigby 2004 (pdf) <u>In-class activity:</u> practicing coding spatial data
14	May 4	Spatial coding mini-project work <u>Read:</u> supplemental reading (pdf)
15	May 11	Course wrap-up Presentation of spatial coding projects by teams

Final: Thursday, May 18 at 5:15-7:30 → *\*Spatial coding mini-project due*