# San José State University College of Social Sciences Anthropology 235, Quantitative Methods, Section 1, Spring 2015

**Instructor:** Dr. Charlotte Sunseri

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**Office Hours:** Monday, Wednesday 2:00PM - 3:00PM, or by appt.

Class Days/Time: Wednesdays 6:00-8:45PM

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.

# **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.

# **Assignments and Grading Policy**

Students will be evaluated on the basis of:

**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.

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Total points in course=100
Grading Distribution
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%
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#### Policies:

- 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.

# **Departmental**

# Goals

Learn about the goals of the anthropology department and how it can benefit your education. Goals <a href="http://www.sjsu.edu/anthropology/departmentinfo/goals/index.html">http://www.sjsu.edu/anthropology/departmentinfo/goals/index.html</a>

#### **Credit Hours**

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five 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.



Here are some of the basic university policies that students must follow.

# General Expectations, Rights and Responsibilities of the Student

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. Students are encouraged to familiarize themselves with SJSU's policies and practices pertaining to the procedures to follow if and when questions or concerns about a class arises. See <u>University Policy S90–5</u> at

http://www.sjsu.edu/senate/docs/S90-5.pdf. More detailed information on a variety of related topics is available in the <u>SJSU catalog</u>, at http://info.sjsu.edu/web-dbgen/narr/catalog/rec-12234.12506.html. In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not serve to address the issue, it is recommended that the student contact the Department Chair as a next step.

#### **Dropping and Adding**

Find the procedures and deadlines for adding and dropping classes.

<u>Catalog Policies</u> <u>http://info.sjsu.edu/static/catalog/policies.html.</u>

Add/drop deadlines http://www.sjsu.edu/provost/services/academic calendars/

<u>Late Drop Policy</u> http://www.sjsu.edu/aars/policies/latedrops/policy/

#### Consent for Recording of Class and Public Sharing of Instructor Material

All students must obtain the instructor's permission if they wish to record lectures or distribute materials from the class.

<u>University Policy S12-7</u> http://www.sjsu.edu/senate/docs/S12-7.pdf

# **Academic integrity**

Learn about the importance of academic honesty and the consequences if it is violated.

<u>University Academic Integrity Policy S07-2</u> http://www.sjsu.edu/senate/docs/S07-2.pdf

Student Conduct and Ethical Development website http://www.sjsu.edu/studentconduct/

## Campus Policy in Compliance with the American Disabilities Act

Here are guidelines to request any course adaptations or accommodations you might need.

Presidential Directive 97-03 <a href="http://www.sjsu.edu/president/docs/directives/PD\_1997-03.pdf">http://www.sjsu.edu/president/docs/directives/PD\_1997-03.pdf</a>

Accessible Education Center <a href="http://www.sjsu.edu/aec">http://www.sjsu.edu/aec</a>

The university provides resources that can help you succeed academically. Just look here. <u>Academic Success Center</u> http://www.sjsu.edu/at/asc/ Peer Connections websitehttp://peerconnections.sjsu.eduWriting Center websitehttp://www.sjsu.edu/writingcenterCounseling Services websitehttp://www.sjsu.edu/counseling

# Anth 235, Section 1 / Quantitative Methods, Spring 2015, Course Schedule

Schedule is subject to change with fair notice.

All supplemental readings and article pdfs available on Desire2Learn course website.

**Table 1 Course Schedule** 

Week	Date	Topics, Readings, Assignments, Deadlines
1	Jan 28	Introduction to course and quantitative research; introduction to SPSS and Pallant; <u>Lecture 1: The nature of social science research</u>
2	Feb 4	Lecture 2: Quantitative Anthropology—Types of data and variables, unit of analysis, samples and populations  SPSS Module: defining variables, entering data  Read: Pallant Ch 1-4, two supplemental readings (pdf), <i>skim</i> Chibnik 1985
3	Feb 11	Mini-project 1 Lecture 3: Developing Surveys and questionnaires with scales Read: Pallant Ch 9; two supplemental readings (pdf) In-class activity: practicing survey development
4	Feb 18	Lecture 4: Descriptive statistics and analysis basics—Graphs and frequency distributions, mean, standard deviation and variance, z scores, normal curve, parametric versus non-parametric  SPSS Module: Exploring your data, normality assessment  Read: Pallant Ch. 6, 7
5	Feb 25	Lecture 5: Comparing groups, part 1: Intro to hypothesis testing, p and significance; t-tests, Z-tests, rank order (Mann-Whitney, Wilcoxon)  Read: Pallant Ch. 17, Mann-Whitney/Wilcoxon sections (pg. 227-232); Weiss (pdf); self-identified article  *Survey mini-projects due
6	Mar 4	SPSS Module: Hypothesis testing with t-tests, rank order, and Z-tests Read: Pallant Ch. 10, catch up from last week if needed!
7	Mar 11	Lecture 6: Comparing groups, part 2: Analysis of variance and non-parametric equivalents (Kruskal-Wallis, Friedman), multivariate analysis SPSS Module: Hypothesis testing with ANOVA Read: Pallant Ch 18, skim 21-22, Kruskal-Wallis/Friedman sections (pg. 232-237); self-identified article
8	Mar 18	Lecture 7: Comparing groups, part 3: Chi-square tests  SPSS Module: Hypothesis testing with Chi-square tests  Read: Pallant pg. 215-221; Havlicek (pdf), self-identified article
Spring E	Break! Mar 23	-27
9	Apr 1	Mini-project 2 Lecture 8: Quantitative meets Qualitative: Ethnographic interviews, OCM codes, joining qualitative and quantitative research Read: Weisner 2012 (pdf); five supplemental readings (pdf) In-class activity: practicing ethnographic/visual coding

Week	Date	Topics, Readings, Assignments, Deadlines
10	Apr 8	Lecture 9: Other Quantitative Data in Anthropology: Historical records, unstructured/structured observation, artifactual datasets, spatial data  Read: Two supplemental readings (pdf)  In-class presentations: practicing ethnographic/visual coding
11	Apr 15	No class—SAA conference.  Work on your Mini-project 2 during this class meeting.
12	Apr 22	Lecture 10: Exploring relationships among variables: Correlation (Pearson's r, Spearman's rho), prediction, regression SPSS Module: Correlations Read: Pallant Ch 11; self-identified article
13	Apr 29	Mini-project 3 Seminar discussion: Spatial analysis (presentations of assigned articles) Read: Your assigned article from this list: Chalmers & Fabricius 2007 (pdf), Logan & Zhang 2004 (pdf), Goodchild et al. 2000 (pdf), Gatrell & Rigby 2004 (pdf) In-class activity: practicing coding spatial data *Ethnographic coding mini-projects due
14	May 6	Spatial coding mini-project work
15	May 13	Course wrap-up Presentation of spatial coding projects by teams

Final: Wednesday, May 20 at 5:15-7:30 → \*Spatial coding mini-project due by email