SOCIOLOGY 6120—STATISTICS I
(Fall Semester, 2013) Thursdays, 2:00 – 5:00 PM, Beh Sci 101

Instructor: Andrew Jorgenson, PhD, Professor of Sociology and Director of Graduate Studies
Office: BEH S, Room 404; Phone: 801-581-8093; Email: andrew.jorgenson@soc.utah.edu
Office Hours: By appointment

Course Summary and Objectives

This ***applied*** graduate-level seminar covers ***introductory yet foundational*** statistical techniques common in sociological research. It is the first of a two seminar sequence for first year students in the sociology PhD program (Statistics I and II). This course introduces students to various descriptive and inferential statistical techniques, including measures of central tendency and variability, tests of statistical significance, measures of association, and OLS regression. Of equal importance is the use of Stata, a useful and powerful software application that you will us throughout your studies and professional career. Thus, much time and attention will be given to learning the mechanics of the application and how to successfully use Stata to execute the statistical methods covered in the seminar. Overall, the seminar puts an emphasis on fundamental concepts and the successful application of the covered methods as well as the ability to interpret the results verbally and in writing. The course is split between formal lectures and lab sessions. The instructor will take an active role in the labs, which will involve a series of practice assignments designed to help students learn how to appropriately and effectively employ Stata to execute and interpret the different statistical techniques.

Course Requirements and Grading

Students are required to take three quizzes (**each worth 25% of final grade**), conduct their own short quantitative study and write a "research note" style article (**worth 20% of final grade**), and present their research to the class at the end of the semester. For this project students are encouraged to find and use datasets that align with their substantive interests. Students will be given data and practice assignments to complete in the labs. While these assignments will not be graded and applied to final grades, they will be thoroughly discussed in class. Overall attendance and "participation" **will count as 5% of final grades**. More specifics concerning all requirements and grading will be discussed on the first day of class.

Three Required Books (available at the campus bookstore)

1. 2011. Frankfort-Nachmias, C. & Leon-Guerrero, A. *Social Statistics for a Diverse Society*. Sage Publications.
2. 1999. Allison, Paul. *Multiple Regression: A Primer*. Pine Forge Publications.
3. 2012. Longest, Kyle C. *Using Stata for Quantitative Analysis*. Sage Publications.

Class Policies and Student Responsibilities

Students and faculty at the University of Utah are obligated to behave in accordance with the ordinances of the University. The Student Code (or Students' Rights and Responsibilities) is located on the Web at: http://www.admin.utah.edu/ppmanual/8/8-10.html

You are encouraged to review this document. All of the rights and responsibilities applicable to both the student and the faculty member will be observed during the semester.

Academic Integrity and Plagiarism

Academic misconduct, including plagiarism, is a serious offense. The following regarding academic integrity and plagiarism is taken from the University of Utah's Student Code:
"Academic misconduct" includes, but is not limited to, cheating, misrepresenting one's work, inappropriately collaborating, plagiarism, and fabrication or falsification of information, as defined further below. It also includes facilitating academic misconduct by intentionally helping or attempting to help another to commit an act of academic misconduct.

a. "Cheating" involves the unauthorized possession or use of information, materials, notes, study aids, or other devices in any academic exercise, or the unauthorized communication with another person during such an exercise. Common examples of cheating include, but are not limited to, copying from another student's examination, submitting work for an in-class exam that has been prepared in advance, violating rules governing the administration of exams, having another person take an exam, altering one's work after the work has been returned and before resubmitting it, or violating any rules relating to academic conduct of a course or program.

b. Misrepresenting one's work includes, but is not limited to, representing material prepared by another as one's own work, or submitting the same work in more than one course without prior permission of both faculty members.

c. "Plagiarism" means the intentional unacknowledged use or incorporation of any other person's work in, or as a basis for, one's own work offered for academic consideration or credit or for public presentation. Plagiarism includes, but is not limited to, representing as one's own, without attribution, any other individual's words, phrasing, ideas, sequence of ideas, information or any other mode or content of expression.

The Student Code states that academic misconduct can be sanctioned in the following ways:

"Academic sanction" means a sanction imposed on a student for engaging in academic or professional misconduct. It may include, but is not limited to, requiring a student to retake an exam(s) or rewrite a paper(s), a grade reduction, a failing grade, probation, suspension or dismissal from a program or the University, or revocation of a student's degree or certificate. It may also include community service, a written reprimand, and/or a written statement of misconduct that can be put into an appropriate record maintained for purposes of the profession or discipline for which the student is preparing.

Faculty Responsibilities

As the instructor for the course, I will:

- Convene classes unless valid reason and notice given
- Perform and return evaluations in a timely manner
- Inform you of:
    1. General course content
    2. Course activities
    3. Course evaluation methods
    4. Course grading scale
    5. Course schedule of meetings, topics, and due dates.
- Ensure that the class environment is conducive to learning. This includes limiting student use of cell phones, reading newspapers during class, talking during class, arriving late and leaving early and other disruptive behavior.

Other faculty rights and responsibilities are further detailed online:
http://www.admin.utah.edu/ppmanual/8/8-12-4.html

Americans with Disabilities Act (ADA)

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations.

All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

*****TENTATIVE*** COURSE SCHEDULE (Reading Schedule TBD)**

Week 1 – August 29

- Course and People Introductions
- The What and Why of Statistics

Week 2 – September 5

- Welcome to Stata!
- Frequency Distributions
- Graphic Presentations

Week 3 – September 12

- Measures of Central Tendency
- Measures of Variability

Week 4 – September 19

- The Normal Distribution
- Sampling And Sampling Distributions
- Estimation

Week 5 – September 26

- Quiz 1

Week 6 – October 3

- Testing Hypotheses
- Cross-Tabulation

Week 7 – October 10

- Chi Square tests
- Measures of Association for Nominal and Ordinal Variables

Week 8 – October 24

- Bivariate Regression and Correlation

Week 9 – October 31

- Quiz 2

Week 10 – November 7

- Multiple Regression

Week 11 – November 14

- Multiple Regression Continued

Week 12 – November 21

- Multiple Regression Continued

Week 13 – December 5

- Quiz 3

Week 14 – December 12

- Final Paper Due and Presentations