

Social Statistics

Sociology 3112-070

Spring 2010 Syllabus

Instructor: Marti Morris, MA/PhD student

Office: BEHS 416

Hours: after class and by appointment

Email: marti.morris@soc.utah.edu

Website: www.soc.utah.edu/courses/soc3112

Lecture Meeting: T 6:35PM-9:15PM SANDY 122

Lab Meeting Times & Instructors: TBA first week of class

Course summary (4) Prerequisite: SOC 1010 and MATH 1010 **Fulfills** Quan Reason (Stat/Logic) & Quant Intensive BS: Statistics is not an obscure and unpractical mathematical method, but is rather a set of useful tools and techniques researchers employ to describe and draw conclusions about the world. This course is designed to provide students with an unimimidating toolbox to both calculate and interpret statistics within the context of social science research. To create this toolbox of statistical analysis, the course will examine theory (lectures) and practice (labs). We begin by studying descriptive statistics including frequency distributions, and measures of central tendency and variability. Then we study basic inferential statistics and learn how to use sample data to draw well-reasoned conclusions about one or more populations. Finally we study ways to describe relationships between variables, including measures of association and bivariate regression.

Course Objectives (Upon successful completion of this course, students should be able to):

- Express the theoretical or conceptual use of statistics as it applies to each subsection
- Calculate and interpret the statistical tools used in class
- Apply new statistical knowledge to practical social contexts

Required Reading (Readings should be completed before the assigned date):

1. Frankfort-Nachmias, C. and A. Leon-Guerrero. 2009. *Social Statistics for a Diverse Society*. Fifth edition. Thousand Oaks, California: Pine Forge Press.
2. Kentor, J. 2004. *Exploring Social Inequality With Statistics*. Thomson Custom Publishing.

Class Policies

1. **Class Conduct:** I expect students to be respectful of each other and of me. I will not tolerate personal attacks. Nor do I tolerate disruptive behavior. Talking to other students, receiving phone calls, text messaging, or playing games during lecture. All constitute class disruptions that will result in your being asked to leave class.
2. **Academic Honesty:** Violations of the student code of ethics including cheating and plagiarism will result in a failing grade of the assignment and/or the course. This applies to all components of the course. Other forms of academic misconduct will be dealt with accordingly. For further details, see the [University of Utah Student Code of Conduct](#).
3. **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.

Grading Scale (I do not grade on a curve, your grade is what you earn)

A	94%-100%	B	84%-86.9%	C	74%-76.9%	D	64%-66.9%
A-	90%-93.9%	B-	80%-83.9%	C-	70%-73.9%	D-	60%-63.9%
B+	87%-89.9%	C+	77%-79.9%	D+	67%-69.9%	E	0%-59.

Course Requirements:

Much of the material encountered can be challenging for many students, and it is crucial to tackle issues before they overwhelm you! Contact the teaching assistants or me **immediately** if you are having difficulty with any aspect of this course. Do not wait until the day before an exam to ask for help! By then it may be too late!

1. Homework (15%) for each lesson (posted on the class website) will be due as indicated on the schedule. Homework will not be graded, but is intended as a way for you to practice our statistics skills. Late homework will not be accepted, although you may miss one of the eight homework assignment without penalty.
2. Quizzes (15%). According to recent educational research, learning is most effective when it occurs in groups. You will take a total of eight quizzes during the course of the semester in small groups, turning in just one per group. This will also function as an exam review.
3. Labs (10%) will help you conceptualize the abstract ideas you will encounter in a more hands-on way. You will learn how to use the statistical computer program SPSS so that you can handle larger datasets and perform more complex analyses. Attending lab, completing lab assignments and understanding how to use SPSS are crucial for the completion of your final project. There will be eleven separate labs offered, of which I will drop the lowest score. Please see lab syllabi for further details and check website regularly for class announcements that may affect the lab schedule.
4. Exams (30%) will cover material encountered in class, in the text and in lab sessions. They will be a mix of short-answer questions and problems.
 - Exam 1 – Descriptive Statistics 2/10
 - Exam 2 – Distributions & Hypothesis Testing 3/17
 - Exam 3 – Relationships Between Variables 4/21
5. Project (30%) development including presentation is the capstone of this class. You will use the General Social Survey or the World Bank datasets to discover and map relationships between two variables. You will write a 2 page paper (1-inch margins, single-spaced, 12-pt. font, Times New Roman or something similar) to be presented in our final class. The interim steps are built into the schedule to foster your project's development. We will discuss this in greater detail as the end of the semester approaches.
 - Project Plan 1 – due 2/17 on WebCT by 11:59 pm
1-paragraph outlining of which dataset and variables you plan to study and why
 - Project Plan 2 – due 3/31 on WebCT by 11:59 pm
2-paragraphs outlining which statistical methods you plan to use and why
 - Project Presentation & Paper - due 4/28 as hardcopy in class
Which Dataset, Variables and WHY
Statistical Method and WHY
Analytic Finding (evaluation of Hypothesis Testing) including statistical output
Applied Findings as it relates to larger social context

Course outline and reading schedule

**Note that this outline is tentative. Discussion and assignment dates may change.*

Week 1	1/13	Part I: Introduction & Descriptive Statistics Syllabus, etc.; The What and Why of Statistics (Ch 1) Due: None Lab: None; Lab Sign-Ups
Week 2	1/20	Frequency Tables & Graphs (Ch 2-3) Due: HW 1 (General Concepts) Lab: Intro & PDS Ex 1-5 Group Quiz General Concepts
Week 3	1/27	Measures of Central Tendency (Ch 4) Due: HW 2 (Frequency Tables & Graphs) Lab: Ex 1-2 (Frequency Tables & Graphs) Group Quiz Frequency Tables & Graphs
Week 4	2/3	Measures of Variability (Ch 5) Due: HW 3 (CT & Variability) Lab: Ex 3 (CT & Variability) Group Quiz Review of Material
Week 5	2/10	Exam 1 - Descriptive Statistics
Week 6	2/17	Part II: Distributions & Hypothesis Testing Probability Distributions & Estimation (Ch 6-8) Due: Project Plan 1 on WebCT by 11:59 pm Lab: None; President's Day (Mon) 2/15
Week 7	2/24	The Logic of Hypothesis Testing (Ch 9) Due: HW 4 (Distributions & Estimation) Lab: Ex 6-7 (Normal Distribution & Confidence Intervals) Group Quiz Distribution & Estimation
Week 8	3/3	Chi-Squared (Ch 11) Due: HW 5 (The Logic of Hypothesis Testing) Lab: Ex 8 (T-tests) Group Quiz The Logic of Hypothesis Testing
Week 9	3/10	Analysis of Variance (Ch 14) Due: HW 6 (Chi-Squared & ANOVA) Lab: Ex 9-10 (Chi-Squared & ANOVA) Group Quiz Review of Material
Week 10	3/17	Exam 2 - Distributions & Hypothesis Testing
Week 11	3/24	NO CLASS Spring Break
Week 12	3/31	Part III: Relationships Between Variables Relationship Between Two Variables; Cross-Tabulation or Bivariate Tables (Ch 10) Due: Project Plan 2 on WebCT by 11:59 pm
Week 13	4/7	Measures of Association for Nominal and Ordinal Variables (Ch 12) Due: HW 7 (Relationship Between Two Variables) Lab: Ex 4 (Bivariate Tables) Group Quiz Relationship Between Two Variables
Week 14	4/14	Regression & Correlation (Ch 13) Due: HW 8 (Measures of Association & Regression & Correlation) Lab: Ex 5 (Correlation & Regression) Group Quiz Review of Material
Week 15	4/21	Exam 3 - Relationships Between Variables
Week 16	4/28	Presentation of Projects Due: Paper hard copy in class
Week 17	5/5	NO CLASS Finals Week