

## Sociology 621: Social Research II

Spring 2009

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Office: Battelle-Tompkins T18    Office Hours: Monday/Thursday 1-4pm or by appointment

Required Materials:            Hamilton, Lawrence C., 1992. *Regression with Graphics: A Second Course in Applied Statistics*. Belmont, CA: Duxbury Press

Recommend Materials:        Hamilton, Lawrence C., 2009. *Statistics with STATA 10*. Belmont, CA: Brooks/Cole Cengage Learning.

Course Objectives: This course is the second half of a full year two-course sequel with a main focus on quantitative data analysis methods (the first half focuses on data collection methods). The main objective is to understand the logics and procedures of linear regression and logit regression techniques, and basics of factor analysis. Regression technique is widely used in social sciences. A solid understanding of this tool will not only enable you to conduct analysis with quantitative data, but also pave the way to more advanced statistical techniques that most likely share very similar logics.

Course Style: Lecture/lab combined. Class meets once a week in the computer lab. The lecture will be mixed with lab sessions.

Performance evaluation: your performance will be measured in a number of ways.

1. Two Exams in class. The first exam will cover chapters 1-4. The second will cover chapter 5-8. Although they are not cumulative, it is inevitable for exam 2 to be somewhat cumulative as chapters 5-8 are built upon chapters 1-4. (100 each/200 total)
2. A full research paper. You can pick your own topic and data but both need my approval. This paper should be full paper, meaning it should cover all standard sections of a journal research article. You can recycle your topic/literature from Research I. (100 total)
3. Weekly exercises. There will be exercises every week except when we have exams. Exercises will be given in class, and should be turned in on time every time class meets. Use MS Word to type your exercises and draw your own tables to report results instead of printing out directly. Turn in hard copy or electronically. (8 each/100 total)

STATA 10: We will be using STATA 10.0 for this course. Make sure you have your login that works in the computer lab.

<u>Grading Scale:</u>	<u>Letter Grade</u>	<u>Percentile</u>
	A	93-100
	A-	90-92
	B+	87-89
	B	83-86
	B-	80-82
	C+	77-79
	C	73-76
	C-	70-72
	F	anything else

## Schedule of Events

Date	Topics	Readings
01/12/09	Course Setup, Variable Distributions /STATA	Syllabus, Chapter 1; STATA Ch 1-4
01/26/09	Bivariate Regression Analysis	Chapter 2; STATA Ch 6
02/02/09	Bivariate Regression Analysis	Chapter 2; STATA Ch 6
02/09/09	Basics of Multiple Regression	Chapter 3; STATA Ch 6
02/16/09	Basics of Multiple Regression	Chapter 3; STATA Ch 6
02/23/09	Regression Criticism	Chapter 4; STATA Ch 7
03/02/09	Regression Criticism	Chapter 4; STATA Ch 7
03/16/09	Exam One	
03/23/09	Logit Regression	Chapter 7; STATA Ch 10
03/30/09	Logit Regression	Chapter 7; STATA Ch 10
04/06/09	Principal Component and Factor Analysis	Chapter 8; STATA Ch 12
04/13/09	Principal Component and Factor Analysis	Chapter 8; STATA Ch 12
04/20/09	Fitting Curves	Chapter 5; STATA Ch 8
04/27/09	Fitting Curves	Chapter 5; STATA Ch 8
05/04/09	Exam Two	
05/04/09	Research Paper Due	