SOCIOLOGY 210C
INTERMEDIATE STATISTICAL METHODS III
Tuesdays & Thursdays 10:30am-11:50am., Haines A37
Spring 2015

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This course provides an overview of statistical methods used in empirical research in sociology and other social sciences, building on topics covered in Sociology 210B. I assume students are familiar with linear regression models for continuous dependent variables. We will begin with a basic review of linear regression analysis and then consider models for categorical dependent variables, including techniques for binary outcomes, ordinal outcomes, nominal outcomes, frequency counts, and censored continuous variables. Among other additional topics, this course will introduce methods for the analysis of contingency tables and the analysis of longitudinal and other forms of clustered data.

Course web page: https://moodle2.sscnet.ucla.edu/course/view/15S-SOCIOL210C-1

REQUIRED COURSE MATERIALS

Students should obtain the following texts.


All three books are available for purchase at the University bookstore and may also be available through select online retailers. In addition, we will make use of a virtual course pack (VCP), available through the course web site. Please note that you may need to connect to the course web site using a computer with a UCLA IP address, or a proxy server for remote access (http://www.bol.ucla.edu/services/proxy/), to view some of these on-campus resources.

**STATA.** Stata is a data management and statistical analysis software package. We will be using Stata for the purposes of this course. Stata 12 is available in the sociology graduate student lab...
(A37), but either versions 12 or 13 should suffice for the purposes of this course. You have several options for obtaining access to Stata:

1) You can purchase Stata at a discounted price for use on your own computer. This is probably the best option if you expect to use statistical packages on a regular basis for the rest of your career and have at least a reasonably fast computer. See http://www.ats.ucla.edu/stat/stata/how_to_get_stata.htm for more information. Stata is available for purchase at reduced rates to UCLA students and employees through Stata’s GradPlan. Ordering an undiscounted copy of the program may be substantially more expensive. The program is available in a variety of versions. Unless you expect to work with very large data sets, Stata/IC should be sufficient. See Stata’s web page for more information: http://www.stata.com/order/new/edu/gradplans/.

2) You can use Stata at one of several locations on campus. For more information on where to find Stata, please refer to UCLA’s Academic Technology Services web page at: http://www.ats.ucla.edu/stat/stata/how_to_get_stata.htm Note that for many or all of these locations, you’ll need to apply for an account before accessing Stata.

As for documentation, the online help available in Stata and through the UCLA ATS web site (http://www.ats.ucla.edu/stat/stata/default.htm), Long & Freese (2006), and your lecture notes should be sufficient for the purposes of Soc. 210c. If you expect to be a heavy Stata user in the future, you may want to order a set of manuals through Stata’s GradPlan (see above).

COURSE FORMAT
There will be regular homework assignments, generally due 5 days after they are assigned. In addition, there will be a take-home midterm and final. Collaboration is acceptable on homework, but NOT on the midterm or final. Homework will contribute 15% toward your final grade, while the take-home midterm and final will contribute 40% and 45%, respectively.

SUPPLEMENTARY READING
A few additional texts that cover the methods discussed in this course, which may serve as useful references in the future:


**TENTATIVE COURSE SCHEDULE**

**Tuesday 3/31**
Review of linear regression I

**Thursday 4/2**
Review of linear regression II
**Reading:** PX: Ch. 2  
W: Sections 6.1-6.3 & 7.1-7.4  
LF: Ch. 2

**Tuesday 4/7**
Review of linear regression III
**Reading:** W: Sections 9.1-9.2 & 9.4-9.5

**Thursday 4/9**
Review of linear regression IV
**Reading:** PX: Sections 3.1-3.2.1  
W: Section 7.5-7.6

**Tuesday 4/14**
Models for binary outcomes I
**Reading:** PX: Ch. 1 & Ch. 3 (Sections 3.2.2 thru 3.6)  
W: Section 17.1  
LF: Ch. 3 & 4

**Thursday 4/16**
Models for binary outcomes II

**Tuesday 4/21**
Models for ordinal outcomes
**Reading:** PX: Ch. 7  
LF: Ch. 5  

**Thursday 4/23**
Models for nominal outcomes
**Reading:** PX: Ch. 8  
LF: Ch. 6 & 7
Tuesday 4/28  Censored and truncated outcomes  
Reading:  W: Sections 17.2, 17.4, 17.5  

Thursday 4/30  *** NO LECTURE ***

Tuesday 5/5  Models for count outcomes  
Reading:  W: Section 17.3  
LF: Ch. 8  
(* ) Take-home midterm due today @ 10:30a.m.

Thursday 5/7  Analysis of contingency tables I  
Reading:  PX: Ch. 4

Tuesday 5/12  Analysis of contingency tables II

Thursday 5/14  Panel and other types of clustered data I  
Reading:  W: Ch.13 & 14

Tuesday 5/19  Panel and other types of clustered data II  

Thursday 5/21  Event history analysis I  
Reading:  PX: Ch. 6

Tuesday 5/26  Event history analysis II  

Thursday 5/28  Endogeneity and simultaneity I: Instrumental variables estimation  
Reading:  W: Ch. 15  

Tuesday 6/2  Endogeneity and simultaneity II  
Reading:  W: Ch. 16

Thursday 6/4  Last class day – catch up and review
Tuesday 6/9  

(*) Take-home final exam due today at 4:00 p.m.