Sociology 1100: Introductory Statistics for Social Research
Spring 2008

Class Time: Tuesday/Thursday 10:30-11:50 am
Class Location: Salomon Center 001

Professor: Dr. Nancy Luke
Office Hours: Tuesday 2:30 – 4:00 pm
Office: 204 Maxcy Hall
Email: nluke@brown.edu

TAs:	Jing Song	Inku Subedi	Hongwei Xu
Office Hours:	TBA	TBA	TBA
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➢ Course Description

A great deal of sociological inquiry relies on quantitative methods (e.g., statistical analyses) to investigate social phenomena. Research using large surveys, public opinion polls, and census data document, describe, and explain a wide range of sociologically motivated research questions. Students in the social sciences must therefore have a basic understanding of statistics, whether to understand, critique, or conduct quantitative social research. This course will provide you with some of these fundamental skills. In addition, we will use a statistical software package (STATA) to analyze real data. One of the primary goals for the course is to provide students with knowledge and appreciation for how statistics are applied by using everyday examples from the media as well as findings from noteworthy social research.

➢ Course Goals

- To become familiar with the basic concepts, terminology, and procedures of data analysis, as well as the logic underlying those procedures.
- To be able to calculate basic descriptive and inferential statistics and interpret them.
- To acquire statistical literacy and an appreciation of when, why, and how formulas and statistical tests are used.
- To learn how to use a statistical software package (STATA) to perform analyses of quantitative data.
- To apply new knowledge of statistics in thinking critically about scientific and popular press reports of research findings.

➢ Requirements

Students must attend all classes and keep up to date in this course. Because of its cumulative nature, misunderstandings can compound quickly and students who miss class or do not keep up with the readings often have difficulty catching up.

Each student must also attend a computer lab session that meets once a week (for 50 minutes) in CIT Building Room 265. These sessions are also required, and they are constructed for your benefit. In the sessions, TAs will answer general questions, help with homework assignments, and teach students how to manage and analyze data in STATA.

Computer lab sessions:
A. Monday 10:00-10:50am
B. Monday 12:00-12:50pm
C. Wednesday 10:00-10:50am
D. Wednesday 1:00-1:50pm
E. Wednesday 2:00-2:50pm
F. Friday 10:00-10:50am

Important information regarding registration for the course and lab sessions on Banner:

- Each student must register for BOTH the course and for one computer lab session on Banner. The course and lab information are not linked, so Banner will not automatically register you in a lab session if you are registered for the course and vice versa. The professor or TAs cannot register for you.
- Students must be registered for a lab session via Banner to remain in the course. When the lab sessions fill up, no additional students may take the class, whether or not they are signed up for the course on Banner.
- Students must attend the lab sessions that they have registered for. If students cannot get into lab sessions that fit their schedules, then they must drop the class. The lab sessions are capped at 24 students and cannot accommodate extra students.
- Students who are in the course and have signed up for one lab session and wish to switch to another can only switch if there is room in another session. Students must first go to Banner and drop from the lab to which they are registered and then add another lab session, space permitting. The professor or TAs cannot switch you from one lab session to another.
- There is no waiting list for the course or for lab sessions. Once the labs are full, students who wish to add the course must monitor Banner to see if lab spaces open when/if other students drop. If the lab session(s) that fit your schedule are full and you cannot get into one that fits your schedule (even if other lab sessions still have space), then you must drop the course. Each student must attend the lab sessions, and you may only attend the session that you have registered for.
- I am very happy that SO 1100 is a popular course. Many students need to take SO 1100 to fulfill a requirement for their concentration. However, to the best of my knowledge, no concentration requires students to take SO 1100 specifically. Other concentrations, such as IR, have a list of research methods courses from which they must choose, and SO 1100 is one of them. Students who do not get into the course or labs this semester have numerous options: they may take SO 1100 next semester or next year, they may take a statistics course in another department, or they may take another research methods course.
- TAs will take attendance in the lab sessions the first week of lab (Feb. 4) and anyone who is not there will forfeit the lab session space. If you have a conflict and cannot come to the session this week only, please email the TAs so we do not drop you.

- **Assessment**

The final grade will be determined as follows:

Homework assignments	20%
Midterm exam #1	25%
Midterm exam #2	25%
Final exam	30%

Two in-class midterm exams (**February 28 and April 10**) and one final exam (**May 13, 9:00-Noon**) will assess students' mastery of course concepts. Exams will be closed book/notes. Any formulas or tables that are needed for reference will be provided during the exam period. Students will be allowed to bring a small hand calculator to exams (no cell phone calculators or elaborate scientific calculators permitted). Exams consist of multiple choice, computational, and interpretive questions.

Exams will be graded on the following scale: A (90-100%), B (80-89%), C (70-79%), No credit (<=69%). If the class as a whole performs particularly poorly on an exam, the grades will be curved. The curve will be determined by the professor.

No extra credit or make-up exams for failing students will be offered in this course.

Homework assignments are given to aid students in understanding course concepts before the exams. Homeworks involve hand calculation, computer exercises, and written work. There are 8 homeworks assigned throughout the semester, each worth 20 points, for a total of 160 points. These 160 points make up 20% of your overall course grade.

The total homework grade will be determined according to the following scale: A (152-160 points), B (142-151 points), C (128-141 points), No credit (<=127 points).

Important information about homework assignments:

- Homeworks must be handed in as hard copy. This may be hand-written or typed answers as well as STATA output. Include page numbers and your name on each page.
- The homeworks are graded not on correct answers, but completion. To get the full 20 points, each student must complete each question (or attempt to), no matter if the answer is right or wrong. This encourages students to try their best to understand and answer the questions without being penalized for incorrect answers. To get the full 20 points, each homework must also be submitted on time. Thus, there are 2 ways to lose points on the homeworks:
  1. Late homework. Each homework must be handed in by **12:00 NOON** on the due date. You may hand in your homework at the end of class to your TA. You may also hand in your homework in a box outside your TA's office in Maxcy Hall. Either way, it must be handed in by noon.
     a. If you hand in the homework after 12:00 noon on the day it is due, 2 points will be deducted. NO excuses. Note: Maxcy Hall closes at 5:00 pm every day. Thus, if you wish to turn in a homework to the box outside your TA's office, you need to get into Maxcy Hall by 5:00 pm.
     b. If your TA receives your homework on the day after it is due, 5 points will be deducted. NO excuses.

c. If your TA receives your homework on the second day after it is due, you will receive ZERO points. NO excuses.

2. Incomplete homeworks. You must complete/attempt ALL parts of ALL questions to receive full credit. One point will be deducted for each problem not fully completed, including printing and handing in STATA output for that question.

- Questions about homeworks: Students should look over and start working on the homework problems soon after they are posted on myCourses (usually 1 week before the homework is due) and use the computer lab sessions to ask your TAs about problems you are having trouble with.
- Corrected homeworks: TAs will grade your homeworks for completeness and give you a point grade. They will also look over your problems to see if they are correct or not. I will post the answers to the homeworks on myCourses so you will be able to see what I am looking for. If you have trouble understanding the answers or why your answer was not correct, you can bring up these issues in the computer lab sessions with your TAs.
- Returned homeworks: You can pick up your graded homeworks from your TA in your next lab session the week after the homework was due. You may also pick up your homework in the box outside your TA's office in Maxcy Hall after the lab session.

➢ Materials

Required text: Chava Frankfort-Nachmias and Anna Leon-Guerrero. 2006. Social Statistics for a Diverse Society, 4th edition. Thousand Oaks, CA: Pine Forge Press. This textbook is available in the Brown Bookstore. Several copies of the textbook are also on reserve in the Rockefeller Library. The textbook includes exercises at the end of each chapter and also comes with a CD, which includes additional review examples and exercises. The textbook has a website with exercises, quizzes, and research examples as well: http://www.pineforge.com/frankfort-nachmiasstudy4/index.htm.

Several short readings that will be covered in class and on homeworks will be posted on myCourses throughout the semester.

Students are strongly encouraged to complete the assigned readings twice: BEFORE the appropriate lecture and AFTER the material has been covered in class. Familiarity with basic concepts and techniques prior to lecture will enhance your comprehension and your ability to answer and ask sensible questions during class.

myCourses website: The course website supplies important information and materials for the course, including syllabus, lecture Powerpoint slides (posted after class), computer lab information (including notes about STATA computer software, data sets, etc.), homework assignments and answers, additional readings, and exam grades.

Students will be allowed to bring a small hand calculator (add, subtract, multiply, divide, and square root) to exams (no cell phone calculators or elaborate scientific calculators permitted). Please purchase one before exam time.

- **Assistance with the Material**

In addition to asking questions in class, students are encouraged to interact with the professor and TAs during computer lab sessions, office hours, and through email messages to make sure they comprehend the course material, assignments, and expectations.

In particular, the professor and TAs will try to respond in a timely manner to your email messages (usually the same day), but we cannot guarantee that questions asked the night before an exam or homework will be answered immediately. Extensive questions should be addressed in lab sessions or office hours.

- **Missed Class or Late Assignments**

Students are required to attend all classes and lab sessions. Being present for all lectures and lab sessions is absolutely crucial to your success in this course. Students are also responsible for all information and announcements provided during the lectures *whether or not you are present.* In addition, we will cover some material in class that is not found in the text or on the course slides. If a student must miss a class, s/he should get the notes from another student. The professor and TAs will not give students copies of class lecture notes nor will the professor or TAs use office hours time to repeat a missed lecture.

All assignments (exams and homeworks) must be completed on time. Make-ups for exams will be accepted only with written justification from a dean or a doctor for extreme circumstances. Travel plans (especially in the form of previously-purchased airline tickets) do not constitute extreme circumstances. Exam dates (including the final exam) are given in this syllabus. The final exam time is pre-scheduled by the University and cannot be changed, and early exams cannot be given according to University policy. Please make travel plans according.

Acceptance of late requirements is unfair to students who completed the assignments on time; therefore, make-up exams will be particularly difficult, and late homework assignments will have points deducted per each day late. Overall, it is unfair to everyone if the professor and TAs make exceptions to the policies described in this syllabus; therefore, we will not make exceptions.

Note: Students who receive extended time on exams must provide Prof. Luke with written certification by February 14.

No extra credit or make-up exams for failing students will be offered in this course.

- **Academic Code**

Please see the Brown University Academic Code for information on academic dishonesty. http://www.brown.edu/Administration/Dean_of_the_College/academic_code/.

- **Course Outline and Reading Assignments**

The following is an outline of the topics we will cover and the chapters from the textbook assigned for each topic. The outline is subject to revision, depending on how the course progresses.

Week	Date	Tuesday topic	Thursday topic	Book chapter
1	Jan. 24		Introduction to the course and the wonderment of statistics	
2	Jan. 29 & 31	Research design, variables, and data	Frequency distributions, graphs	Chapters 1, 2, 3
		Computer Lab Sessions begin Monday, February 4 in CIT Building Room 265		
3	Feb. 5 & 7	Measures of central tendency	Variability **Homework #1 due**	Chapters 4, 5
4	Feb. 12 & 14	**LONG WEEKEND -- NO CLASS**	Cross-tabulation, elaboration	Chapter 6
5	Feb. 19 & 21	Normal distribution **Homework #2 due**	Z scores	Chapter 9
6	Feb. 26 & 28	Sampling/probability **Homework #3 due**	**EXAM 1**	Chapter 10
7	March 4 & 6	Sampling distribution	Estimation, confidence intervals	Chapter 11
8	March 11 & 13	Estimation, confidence intervals	Hypothesis testing **Homework #4 due**	Chapter 12
	March 18 & 20	**SPRING BREAK – NO CLASS**		
9	March 25 & 27	One sample Z test, *p*-value	t distribution and test	Chapter 12
10	March 1 & April 3	Two sample tests **Homework #5 due**	Reading the research literature	Chapter 12
11	April 8 & 10	Chi-square distribution and test **Homework #6 due**	**EXAM 2**	Chapter 13
12	April 15 & 17	Regression and correlation **Homework #7 due**	Regression and correlation	Chapter 8
13	April 22 & 24	Multiple regression	Analysis of variance **Homework #8 due**	Chapter 14
	May 13	**FINAL EXAM** **9:00 am - Noon**		