SOCIOLOGY 241
SOCIAL STATISTICS

Statistics are all around you every day—in advertisements, companies try to lure you by claiming the approval of "4 out of 5 experts" or they tout "success rates." Newspapers report the findings of social scientists on marriage rates or epidemiologists on the likelihood of disease transmission. Economic decisions at the state and federal level are made on the basis of population statistics, political polls give news pundits talking points, and sports newscasters report the free throw percentages and batting averages of star players.

The primary purpose of this course is to increase your data analysis and statistical literacy. We will focus on choosing when to use a particular statistical technique and how to interpret the results. We will also learn how to compute simple statistics using a calculator. We will practice these skills through weekly assignments and in-class exercises. Such training will make you a more informed citizen and a more intelligent consumer of information. They will also serve you well in securing employment in a number of fields, or if you decide to further your education in the social sciences.

Course Objectives

1. To apply the logic of social science research methods using quantitative data measurement and analysis
2. To analyze quantitative data using basic inferential statistical tools and software
3. To explain why and how we use each statistical tool
4. To accurately interpret statistical results

Course Components

Required materials:

- Frankfort-Nachmias, Chava and Anna Leon-Guerrero. 2006. *Social Statistics for a Diverse Society*, 7th edition. Thousand Oaks, CA: Pine Forge Press.

- Additional readings may be posted on the course web page on Blackboard.

- Scientific calculator: Must be able to perform basic trigonometric functions (roots, powers).

Evaluation

You will be evaluated on the following criteria:

1) **Class participation**: There will be many opportunities to work individually and in groups to use what you have read and apply it to real world problems. You should prepare for class by completing each week's readings. You will be expected to actively participate in an effort to ensure your understanding of the ideas presented in class. Your class participation grade will be determined based on your attendance and my evaluations of your participation in class.

2) **Homework**: You will complete 11 short assignments throughout the semester to check your comprehension of the previous class's material. Sometimes these will involve calculations,

while at other times you will be asked to provide an interpretive or analytical response. These assignments are due at the beginning of class, and will be marked late if turned in after 5:35pm on the day it is due. You will lose 25% of the total possible points for each day it is late (ie, if it is turned in anywhere between 1 minute and 24 hours late, I will deduct 25% of the total possible points, then 50%, and 75%. I will not accept assignments that are submitted more than 72 hours late). Your two lowest grades will be dropped from your take-home assignment grade.

3) **In-class exercises**: You will analyze sociological data using computer software (SPSS). Data packages like SPSS are an essential component to real-world social science research, and the ability to use this program is highly marketable. We will analyze data each week and you will turn in your work at the end of the class period. I encourage you to work with your fellow students on all exercises, but what you hand in should be written independently. The exercises will be graded on a 20 point scale.

4) **Exams**: You will take 3 exams over the course of the semester, which will each count toward 20% of your overall grade. Although the second and third exams are not specifically cumulative, ability to complete more complex statistical techniques rests on one's comprehension of earlier concepts.
   a) Exams must be taken during the time they are noted on the course schedule. If an emergency arises, notification along with documentation must be provided in order to sit for the exam at a later time; otherwise the exam will be graded as a "0". In-class and make-up exams will be different in form and content.
   b) If you arrive late to class on the day of an exam, you will be allowed to sit for the exam provided no other student has already completed the exam. The time given to complete an exam will not extend beyond the time allotted.

Grading summary

In-class participation	10%
Homework	15%
In-class exercises	15%
Exam 1	20%
Exam 2	20%
Exam 3	20%
Total	**100%**

How to Succeed in Statistics

Statistics can best be thought of as a mix between a mathematics course and a language course. You will learn new terms and expressions and you will perform computations to produce descriptive and inferential statistics. Just like mathematics and language courses, we will begin with simpler concepts and build up toward greater complexity. It is critical that you remain current with the assigned reading schedule. For every hour that we spend in class, I recommend you set aside two hours for careful reading of the texts, preparation for class, and reviewing your notes. You will find class discussions much more meaningful if you spend time before class, writing out the main points from your readings and reviewing your homework assignments.

If you have trouble with an early reading, assignment, or exam, I *strongly recommend* you work to understand your mistakes so that you will not fall further behind. This may include re-reading chapters, revisiting old assignments, forming study groups, and coming to office hours. Be proactive about your performance in this class! Ultimately, your grade is up to you, and is a reflection of your performance. I do not assign grades based on actual or perceived effort.

Rules of the road

1. We start class on time. You are responsible for any portion of class you miss.

2. Silence your cell phones and store them out of sight during class. If there are extenuating circumstances in which you need to be available for an emergency phone call, you must notify me, put your cell phone on vibrate, and leave the classroom to take the call. Do not initiate text messaging in class. Students who do so will be asked to leave.

3. We meet in a computer lab once a week in order to utilize data software. Do not use the computer to send or receive messages or to surf the internet while class is in session. Doing so is a disservice to yourself and those around you.

4. Side conversations are a distraction. You will have plenty of time to interact before and after class and during group activities. During lecture and individual work, respect the class community by remaining attentive. If you are unclear about a concept or direction, ask me about it—you are probably not the only one who has the same question or concern!

5. Check the course Blackboard site daily for announcements and instructions for assignments. Many assignments are ONLY available through Blackboard.

Academic Integrity

Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

AccessABILITY

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212) 772- 4857 or (212) 650-3230.

Course Outline

Date		Topic	Readings & Assignments
Thursday 8/28		Introduction	
Tuesday 9/2		Introduction to research methods	Appendix F, Chapter 1 Homework #1
Thursday 9/4		Frequency distributions and graphs	Chapters 2 & 3
Tuesday 9/9	LAB	Frequency distributions and graphs	Homework #2
Thursday 9/11		Measures of Central Tendency	Chapter 4
Tuesday 9/16	LAB	Measures of Central Tendency	Homework #3
Thursday 9/18		Measures of Variability	Chapter 5
Tuesday 9/23		NO CLASS-Friday schedule	
Thursday 9/25		NO CLASS-Break	
Tuesday 9/30	LAB	Measures of Variability	Homework #4
Thursday 10/2		Exam 1	
Tuesday 10/7		The Normal Distribution	Chapter 6
Thursday 10/9		Sampling	Chapter 7
Tuesday 10/14	LAB	Sampling	Homework #5
Thursday 10/16		Estimation	Chapter 8
Tuesday 10/21	LAB	Estimation	Homework #6
Thursday 10/23		Testing Hypotheses	Chapter 9
Tuesday 10/28	LAB	Testing Hypotheses	Homework #7
Thursday 10/30		Exam review	
Tuesday 11/4		Exam 2	
Thursday 11/6		Bivariate Tables	Chapter 10

Tuesday 11/11	LAB	Bivariate Tables	Homework #8
Thursday 11/13		Chi-Square & Measures of Association	Chapter 11
Tuesday 11/18	LAB	Chi-Square & Measures of Association	Homework #9
Thursday 11/20		Regression and Correlation	Chapter 13
Tuesday 11/25	LAB	Regression and Correlation	
Thursday 11/27		NO CLASS-Thanksgiving	
Tuesday 12/2		Review: Cross-tabs, regression, and correlation	Homework #10
Thursday 12/4		Analysis of Variance	Chapter 12
Tuesday 12/9	LAB	Analysis of Variance	Homework #11
Thursday 12/11		**Final exam**	