

## **SOCI-120-920**

### **Introduction to Social Statistics**

**Instructor:**

Yun Cha

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**Lectures:**

Time: Tuesday/Thursday 5:30pm-9:20pm, July 5 – August 9, 2019

Location: TBA

**Cross Listings:** AFRC 120 920

**Course Overview:**

This course offers a basic introduction to the application/interpretation of statistical analysis in social sciences. Upon completion, you should be familiar with a variety of basic statistical techniques and a statistical software skill that allow examination of interesting social questions. We begin by learning to describe the characteristics of groups, followed by a discussion of how to examine and generalize about relationships between the characteristics of groups. Emphasis is placed on the understanding/interpretation of statistics used to describe and make generalizations about group characteristics. Since this is introduction to social statistics, I will go through all stages of conducting research that include the description of a variety type of data in graphical and non-graphical form, creating cross-tabulation and estimating bivariate regression.

This course is recommended to students with little experience in statistics and Stata. I am open to suggestions about how to modify class to better suit your needs. Do not hesitate to contact me if you have any requests or ideas.

**Prerequisite:**

No statistical or coding background is needed. However, some familiarity with algebraic notation at the high-school level is assumed.

**Software:**

We will use Stata software. Student Licenses are available at a discounted price (<https://www.stata.com/order/new/edu/gradplans/student-pricing/>). Labs at Penn generally have Stata software installed.

If I see that students are willing to use R, we will use it instead (It has its pros and cons: Pros: It's free and more powerful, Cons: it's a bit less intuitive to learn, especially at first).

**Readings:**

Textbook for class: Frankfort-Nachmias, Chava and Leon-Guerrero, Anna. *Social Statistics for a Diverse Society*, 8th edition

Recommended: Alan Agresti & Barbara Finlay. 2009. *Statistical Methods for the Social Sciences* (4th edition) Pearson Prentice Hall.

**Tentative Schedule:**

	<b>Date</b>	<b>Theory</b>	<b>Practice</b>
1	9-July	Introduction & Organization of Information	Introduction to/Data in Stata
2	11-July	Measures of Central Tendency & Graphic presentation	Graphs in Stata
3	16-July	Variability	Summarizing Data in Stata
4	18-July	Normal Distribution	Sampling in Stata
5	23-July	Sampling and Sampling Distribution	Estimation in Stata
6	25-July	Estimation. Testing Hypotheses	Hypotheses testing in Stata
7	30-July	Measures of Association. Chi-square	Cross tabulation, Chi2 test in Stata
8	1-Aug	Analysis of variance	Analysis of Variance in Stata
9	6-Aug	Introduction to Regression 1	Regression in Stata
10	8-Aug	Introduction to Regression 2	Regression in Stata

**Tentative Grade Policy**

40% Homework

25% Take Home Midterm

35% Take Home Final