

## **SOCI 314 Analyzing Social Statistics**

**Units: 4**

**Spring 2016; MW: 10:00-11:20\* AM**

**\* Free lab time until 11:50**

**Location: KAP 305**

**Instructor: Juliana McGene**

**Office: 307 HSH**

**Office Hours: Thursdays 10:30 AM – 1:30 PM**

**Contact Info: mcgene@usc.edu**

### **Course Description**

This course focuses on the “doing” of social science research using quantitative methods. Sociologists are concerned with many topics, ranging from demographic trends to discrimination and inequalities to industrialization and democracy. We create theories to explain the similarities, differences, and trends we see, and these theories are often based on statistical data. We are also critical consumers of information, so we often subject these theories to rigorous empirical testing to assess whether they are good theories and whether they hold up across different situations, populations, and scenarios. This is a crucial difference between Sociology and “common sense.” While the latter arises from casual and non-random observations of the social world, sociological conclusions are based on systematic, numerous, and representative observations. Also, please note that this is not a math class, per se. The focus is on the concepts.

This course focuses on how statistics can be used to answer questions, describe data, and increase your ability to be a critical consumer of the information you encounter every day in books, newspapers, television, and other media. For many students, taking a statistics course brings up fear and anxiety. If this is true for you, *please don't be afraid!* We will work together to make statistics more approachable, and you will leave this course with a solid understanding of the benefits of social science statistics.

### **Learning Objectives**

This class has two main objectives. The first is to give you the tools you need to analyze social science data and to draw conclusions from those analyses. These skills include the use of SPSS (Statistical Package for the Social Sciences) software. Once you have acquired this skill, you will be able to utilize data for the purpose of answering such social science questions as, “How much income do people in the United States have on average?” and “What sort of things help predict a person’s income?” The second goal is to help you to read and comprehend social science research literature, such as that found in journal articles or other scholarly publications. This will be useful in upper level courses you may take in the future, and will help you to consume more general research you encounter in an informed and critical manner.

This course will give you the information and tools you need to be able to:

- ✓ Describe the structure and characteristics of statistical data
- ✓ Calculate and interpret measures of central tendency and variability in statistical data
- ✓ Assess the strength of association between sociological variables
- ✓ Determine whether observed statistical patterns and associations are generalizable to the larger social world
- ✓ Achieve a basic understanding of statistical and database computer software
- ✓ Identify and carryout basic statistical analyses used in sociological inquiry
- ✓ Become a critical consumer who can assess the validity of the data output you encounter in academic books, journal articles, newspapers, television, and other media sources

Your class assignments and labs will require you to gain a working familiarity with SPSS. SPSS is a statistical software package widely used in the social sciences.

## Required Readings (available at university bookstore)

Joseph F. Healey. 2015. *Statistics: A Tool for Social Research* (10<sup>th</sup> edition). New York: Cengage (ISBN13:978-1-285-74173-4)

## Description and Assessment of Assignments

### ATTENDANCE:

Attendance is expected at *all* class sessions. The course material builds cumulatively from week to week, so missing classes will make it difficult to catch up. Moreover, having more than 4 unexcused absences will result in a loss of ½ of your final letter grade (e.g., if you had an A-, more than 4 unexcused absences would decrease your final letter grade to a B+). You are responsible for any missed material. I will not provide notes nor repeat lectures. I will be happy to go over any questions you have from your notes. You should bring a calculator and your textbook to all class meetings.

### COURSE REQUIREMENTS:

Your final grade in this course will be based on two examinations (a **midterm on Wednesday, February 24<sup>th</sup>** and a **final exam on Monday, May 9<sup>th</sup>**) and five homework assignments. Each examination will be worth 35% of your grade, for a total of 70%. The examinations will include one or more of the following: multiple choice, short answer (including interpreting data), and computational questions. **All students must take exams during class time/the scheduled time on these designated dates, so please do not make any plans that conflict with these exams. NO make-ups will be permitted. Your decision to stay registered in this class is understood to be an agreement with these policies and your agreement to take these exams at these scheduled times and dates.**

You will also complete five homework assignments using your textbook and the 2012 General Social Survey data on SPSS. For each assignment I will demonstrate the relevant functions in SPSS and review the interpretation of the results in class. To complete the assignments, you will need to access the GSS data file that corresponds to the examples in your textbook. You will find this data file on Blackboard and I will also send the class this SPSS file via a group email. The computers in this lab (KAP 305) all have SPSS software. I will announce exercises for each assignment that will either be directly from your book or on a handout given in class (or both). The dates of the in-class SPSS demonstrations as well as the due dates for each of the five assignments can be found in the course schedule below. Demonstrations will not be repeated. These assignments together comprise the remaining 30% of your final grade (6% each). Late assignments must be turned in by the following class meeting, and will receive a maximum of 3 points (3% of final grade). No assignments will be accepted after that time. I encourage you to complete each of these assignments carefully, as they can be the difference between the grade you get and the grade you wish you had. They will also provide a better understanding of the course material.

## Grading Breakdown

The points you earn on four exams and five homework assignments will determine your grade in this course. Each of these will be weighted as follows:

Midterm Exam	35%
Final Exam	35%
<u>Five Homework Assignments</u>	<u>30% (6% each)</u>
Total Possible Percentage Points	100%

Your letter grade will be based on a percentage of the 100 total possible points that you earn, and will be assigned on the following basis:

A = 94 to 100; A- = 90 to 93.9; B+ = 87.9 to 89.9; B = 83.33 to 87.8; B- = 80 to 83.32; C+ = 75 to 79.9; C = 70 to 74.9; D = 60 to 69.9 and F = 59.9 and below. **No exceptions.** I do not change grades unless there is a computational error. **No exceptions.**

## Assignment Submission Policy

Each test date/ all due dates are noted in the course schedule below. Please refer to this syllabus for due dates/ test dates. All assignments must be turned in at the beginning of class on the due date. Late assignments will not be accepted after the class meeting immediately following the due date (e.g., if an assignment is due on a Monday, it must be turned in by the Wednesday of that week), and late assignments will not receive any grade higher than 3 points (on-time assignments can earn as much as 6 points each). Exams must be taken on the day they are scheduled. No make-up exams will be permitted.

## Additional Policies

In addition to the loss of points for late assignments as noted above, having more than 4 unexcused absences will result in a one-half letter grade reduction in your final grade. [For example, if you have earned an A-, but you miss more than four classes without formal/ legitimate excuses (e.g., university event obligation; serious documented illness), your final letter grade will be a B+.]

I expect a great deal of respect be given to your fellow students and to me. Please do not do work for other classes or have extended conversations with your neighbor during class time. Because we have class in a computer lab, it is important that no applications/programs are open (***at all***) other than SPSS or those we are using for class at that time. The use of other functions on the computer (internet, email, etc.) is distracting to other students and to me. If I see anyone using a non-class related program during class, they will be counted as absent for that day, which over time will reduce your final grade (see policy in preceding paragraph). The use of electronic devices in this class is strictly prohibited. Please turn cell phones off completely during class. The use of computers (except for work we are doing for our class for that day), cell phones, iPods, etc. will result in dismissal from that lecture. After three lecture dismissals you will be asked to drop the class.

***As the course progresses, it may be necessary to make some adjustments to the schedule of readings, topics, assignments, and due dates printed in this syllabus.*** You should check the course website on a regular basis for updates and changes. You should also check your USC email account regularly for announcements, as I will often use email instead of Blackboard. If you miss a class, it is your responsibility to find out what you missed. Notes and lectures are not posted online. If you miss a class, you will need to get these materials from another student in the class.

**Please do not leave and re-enter the classroom during class unless you are ill. Such behavior interrupts the lecture and is inconsiderate to me and to your fellow students.**

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## COURSE SCHEDULE

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DATE	TOPIC	READING
Jan 11 M	Overview of course	
Jan 13 W	Introduction to Statistics; Definitions	Chapter 1
<b>Jan 18 M</b>	<b>MLK Day: NO CLASS</b>	
Jan 20 W	Frequency distributions; Graphs ( <u>SPSS intro; assignment #1 demo</u> )	Chapter 2
<b>Jan 25 M</b>	Central tendency ( <b>Homework #1 due</b> )	Chapter 3
Jan 27 W	Standard deviation and variance (dispersion)	Chapter 4
Feb 1 M	Z scores; The normal curve ( <u>SPSS assignment #2 demo</u> )	Chapter 5
Feb 3 W	The normal curve; Homework #2 questions	Chapter 5
<b>Feb 8 M</b>	Sampling methods and Sampling Distributions ( <b>Homework #2 due</b> )	Chapter 6
Feb 10 W	Sampling distributions and Confidence Intervals	Chapter 6 & 7
Feb 15 M	Confidence intervals ( <u>SPSS assignment #3 demo</u> )	Chapter 7
<b>Feb 17 W</b>	Confidence intervals questions ( <b>Homework #3 due</b> )	Chapter 7
Feb 22 M	Review for Midterm Exam (NO STUDY GUIDE GIVEN; COME WITH QUESTIONS)	
<b>Feb 24 W</b>	<b>Midterm Examination *** <u>NO MAKE-UP EXAMS WILL BE GIVEN</u>***</b>	

DATE	TOPIC	READING
Feb 29 M	Hypothesis testing with one sample	Chapter 8
Mar 2 W	One-sample t-test	Chapter 8
Mar 7 M	Hypothesis testing with two samples	Chapter 9
Mar 9 W	Two sample t-test	Chapter 9

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**MARCH 14-20: SPRING BREAK: NO CLASS**

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Mar 21 M	Review Hypothesis Testing (one & two samples); Intro HW#4A	Chapter 8,9
Mar 23 W	Hypothesis Testing and Crosstabulation	Chapter 11
Mar 28 M	Crosstabulation and Chi-Square Test; in-class exercise; Intro HW#4B	Chapter 11
Mar 30 W	<u>SPSS assignment #4B demo</u> ; questions on Homework #4 A&B	Chapter 11
<b>Apr 4 M</b>	Correlation (Bivariate Association) <b>(Homework #4 A&amp;B due)</b>	Chapter 12
Apr 6 W	Correlation continued ( <u>SPSS correlation demo assignment #5</u> )	Chapter 12
Apr 11 M	Bivariate Regression	Chapter 13
Apr 13 W	Regression continued	Chapter 13
Apr 18 M	Intro to Multiple Regression (SPSS #5 demo continued)	Chapter 14,15
Apr 20 W	Multiple Regression continued; questions on Homework #5	Chapter 14,15
<b>Apr 25 M</b>	Regression and Intro to Beyond OLS Regression <b>(Homework #5 due)</b>	Chapter 15
Apr 27 W	Review for Final Exam (NO STUDY GUIDE GIVEN; COME WITH QUESTIONS)	

**Final Exam: Monday, May 9<sup>th</sup> 8 - 10 AM \*\*\* NO MAKE-UP EXAMS GIVEN. \*\*\***

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### Statement on Academic Conduct and Support Systems

#### Academic Conduct

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men*

<http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage [sarc@usc.edu](mailto:sarc@usc.edu) describes reporting options and other resources.

## **Support Systems**

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* [http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html) provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.