

SOC 3120  
SOCIAL STATISTICS I

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<b>Term:</b> Spring 2017	<b>Instructor:</b> Sun Y. Jeon
<b>CRN:</b> 12755	<b>Office:</b> Old Main 216D
<b>Time:</b> MWF 10:30 - 11:20 am	<b>Email:</b> s.jeon@aggiemail.usu.edu
<b>Room:</b> 278 Biology/Natural Resources	<b>Place:</b> MW 12:00-1:00 pm

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**Description and Objectives:**

This course will provide you an introduction to quantitative methods of reasoning in sociology and other social sciences. Through this course you will learn that statistics are an indispensable set of tools that can help you answer questions about the social world. In addition, training in statistics is also highly pragmatic, as it provides you with a skill set that is valued by many graduate programs and employers in academia, government, and the private sector.

In this course, you will learn some basic formulas and perform various calculations by hand to solidify your foundation of knowledge in statistics. You will also receive an introduction to computer technologies that ease the calculation of statistics by completing exercises with the Statistical Package for the Social Science (SPSS). A basic understanding of statistics coupled with the ability to use software like SPSS can be a formidable combination in a competitive job market.

**Required Text and Equipment:**

- Healey, Joseph F. 2014. *Statistics: A Tool for Social Research*, 10th edition, ISBN-10: 1285458850
- A calculator capable of addition, subtraction, multiplication, division, and calculating square roots
- Access to the IBM data analysis program, SPSS

**Student Evaluation**

Your course grade will be based upon thirteen assignments and two exams. Each homework assignment is worth 10 points. Every assignment will be a combination of conceptual questions, hand calculations, SPSS programming, and statistical output analysis. The mid-term and final exams are worth 120 and 150 points, respectively. The final exam will be comprehensive.

<b>(1) Assignments 1-13</b>	130 pts	(10 pts each)
<b>(2) Mid-term Exam</b>	120 pts	
<b>(3) Final Exam</b>	150 pts	
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<b>Total points</b>	400 pts	

**Grading Scale**

Your grade will be determined via the following scale:

<b>A</b>	370 pts and above	<b>A-</b>	360-369	
<b>B+</b>	348-359	<b>B</b>	328-347	<b>B-</b> 320-327
<b>C+</b>	308-319	<b>C</b>	288-307	<b>C-</b> 280-287
<b>D+</b>	268-279	<b>D</b>	240-267	<b>F</b> 0-239

## Course Policies

1. You are expected to attend every class. I also expect you to come to class on time and to stay for the duration of class. Regular class attendance is vital to your success in this course. If you fail to grasp concepts early on in this course due to poor attendance, you will likely to struggle with the more complicated concepts that come later in the course
2. Please extend courtesy and respect to your fellow students in any discussion and avoid any overtly hostile or demeaning language when reacting to another student's ideas. Repeated disrespectful and rude behavior may be grounds for dismissal from this class.
3. Assignments submitted electronically via CANVAS by 9 pm MST on the due date. Hand-written solutions should be scanned and submitted electronically. While students can discuss the homework with each other, homework handed in must be the student's own work.
4. It is critical to work every problem and develop a comprehensive written solution for each one in your assignments. You must show work for full credit and explain your methodology or logic when necessary.
5. Late assignment will not be accepted unless you notify me 24 hours *before* the assignment is due and provide me with an acceptable reason why the assignment will be late. I may request a written documentation for the excuse if deemed necessary. If you do not follow this procedure, you will receive a zero on the assignment.
6. You must complete exams on time. If an illness or other unforeseen event causes you to miss an exam, you must contact me immediately to request a make-up exam. In the case of illness, a note from your physical may be required.
7. Plagiarism and cheating will not be tolerated. Plagiarism includes knowingly representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgement. the penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, and denial or revocation of degrees.
8. Cell phones, handheld game systems, iPods, tablets, laptop computers, etc., are not permitted in this course. If you have special needs that require the use of a personal technology device, please see me.
9. Extra credit is not available in this course. If you have concerns about your grade, please contact me.
10. In line with university policy, students with disabilities who are in need of academic accommodations must register with and provide documentation to the Disability Research Center (DRC) and bring a memorandum from the DRC to the instructor indicating the need for accommodation and what type. This should be accomplished within the first two weeks of the semester. Additional information can be accessed at [www.usu.edu/drc/](http://www.usu.edu/drc/)
11. If you have a problem, please do not hesitate to contact me. It is easiest to reach me via email, although I do request that you include your first name and last name in all correspondence. I check my email account daily, so if you need to contact me, you can expect a response within 24 hours, but you should not wait until the last minute before deadlines to write to me with questions.

**Course Syllabus**

You are expected to complete all readings by the adjacent date. All listed readings are from the 10th edition of *Statistics: A Tool for Social Research* (Healey 2014).

<b>Week</b>	<b>Date</b>	<b>Reading</b>	<b>Topic</b>	<b>Assignment</b>
1	Jan 9	None	Course/Syllabus Introduction	
	Jan 11	Ch. 1	Levels of Measurement	
	Jan 13	Ch. 2	Introduction to Descriptive Statistics	
2	Jan 16		<b>Martin Luther King, Jr. Day (no class)</b>	
	Jan 18	Ch. 2	Percentages, Ratios, and Rates (1)	
	Jan 20	Ch. 2	Percentages, Ratios, and Rates (2)	
3	Jan 23	Ch. 2	Frequency Distribution	HW 1 due
	Jan 25	Ch. 3	Measurement of Central Tendency	
	Jan 27	Ch. 4	Measurement of Dispersion/Variability	
4	Jan 30	Ch. 5	The Normal Curve	
	Feb 1	Ch. 5	Translating Z-scores (1)	
	Feb 3	Ch. 5	Translating Z-scores (2)	HW 2 due
5	Feb 6	Ch. 5	Z-scores and Probability	
	Feb 8	Ch. 6	Introduction to Inferential Statistics	
	Feb 10	Ch. 6	Sampling Distribution of the Mean (1)	HW 3 due
6	Feb 13	Ch. 6	Sampling Distribution of the Mean (2)	
	Feb 15	Ch. 8	Sampling and Confidence Interval	
	Feb 17	Ch. 8	Hypothesis Testing	HW 4 due
7	Feb 20		<b>Presidents' Day (no class)</b>	
	<b>Feb 21</b>	Ch. 8	Hypothesis Testing w/ z-scores	
	Feb 22	Ch. 8	One Sample t-test (1)	
	Feb 24	Ch. 8	One-Sample t-test (2)	HW 5 due
8	Feb 27	Ch. 8	Hypothesis testing w/ proportions	
	Mar 1	Ch. 8	Review for Exam	
	Mar 3		<b>Mid-term Exam</b>	HW 6 due
	Mar 6-10		<b>Spring Break (no class)</b>	
9	Mar 13	Ch. 9	Two-sample Hypothesis testing (1)	
	Mar 15	Ch. 9	Two-sample Hypothesis testing (2)	
	Mar 17	Ch. 9	Dependent-Samples t-tests, effect size	HW 7 due
10	Mar 20	Ch. 10	Analysis of Variance	
	Mar 22	Ch. 10	More about ANOVA (1)	
	Mar 24	Ch. 10	More about ANOVA (2)	HW 8 due
11	Mar 27	Ch. 11	Chi-square Test (1)	
	Mar 29	Ch. 11	Chi-square Test (2)	
	Mar 31	Ch. 11	Two-Sample Chi-Square Test	HW 9 due

<b>Week</b>	<b>Date</b>	<b>Reading</b>	<b>Topic</b>	<b>Assignment</b>
12	Apr 3	Ch. 12	Hypothesis of Association	
	Apr 5	Ch. 12	Nominal Variable and Association	
	Apr 7	Ch. 12	Ordinal Variables and Association	HW 10 due
13	Apr 10	Ch. 14	Interval-Ratio Variable and Association	
	Apr 12	Ch. 14	Bivariate Correlation	
	Apr 14	Ch. 15	Introduction to Regression	HW 11 due
14	Apr 17	Ch. 15	More about regression	
	Apr 19	Ch. 15	Adding More Variables	
	Apr 21	Ch. 15	Partial Correlation	HW 12 due
15	Apr 24	Ch. 16	Multiple Correlation and Regression (2)	
	Apr 26	Ch. 16	Multiple Correlation and Regression (2)	
	Apr 28		Review for Exam	HW 13 due
16	May 3		<b>Final Exam (11:30 am-1:20 pm)</b>	

\* Homework should be submitted via **CANVAS** by **9pm MST**.