SOC 221: Statistical Concepts and Methods for the Social Sciences
Summer 2018 (June 18 – August 17)
WF 9:40-11:50
LOW 217

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COURSE DESCRIPTION:

This course is designed to provide students with an introduction to statistical concepts and methods. As social beings, we are continuously exposed to a variety of information that can be more effectively consumed using statistical tools. Knowledge of statistics improves our ability to critically engage the claims we read and hear regarding social topics like political opinions, gender-based wage inequalities, racial differences in educational attainment, expected lifespans by country, the expected risk of contracting a disease, and many others.

To meet the goals of the course, there are several course objectives, which students will be expected to achieve by the end of the term:

- Define key statistical concepts and how they fit together in order to articulate how questions about the world around us can be explored in statistical terms
- Solve statistical problems through data analysis
- Explain statistical findings and their implications for how we understand the world

EXPECTATIONS FOR BEHAVIOR:

The Department of Sociology at the University of Washington has a long-standing commitment to the promotion of diversity in its scholarship and community. It strongly affirms that the coming-together of communities of intersecting identities leads to a diversity of experiences.

In agreement and accordance with this, I seek to provide an open and supportive classroom for all students. Any who feel uncomfortable in this environment are *strongly encouraged* to let me know, including anonymously. You can send me an anonymous email using this link: https://catalyst.uw.edu/webq/survey/shlarimo/357121. Please note that this is not an appropriate means for contacting me if you would like a personal response.

As an important component of an open classroom, I am happy to work with students with one or more temporary/permanent conditions that necessitate academic accommodations. **Disability Resources for Students** (011 Mary Gates, (206) 543-8924) can provide official institutional approval and support for accommodations. Applying for accommodations can be time-consuming—in many cases, this should take place prior to the start of the course—so

potentially impacted students should plan accordingly. Please feel free to see me after class or during office hours to further discuss this.

Student-members of the classroom community are expected to treat others with respect. This includes not only engaging with others in a sensitive manner, but also refraining from distracting behavior (e.g., using technological devices for purposes unrelated to the course, eating pungent or loud food, holding side conversations). Additionally, I will not tolerate any derogatory language towards members of social groups. This includes but is certainly not limited to any racist, anti-immigrant, sexism, anti-LGBTQIA+, or otherwise offensive language. Failing to abide by these classroom rules may result in your removal from the classroom.

E-MAIL POLICY:

Please only email with questions that can be answered in 3 sentences or less. Questions that require a more detailed response (e.g., explaining a confidence interval and how to calculate one) should be addressed during class or office hours. Please direct electronic correspondence to me via email (shlarimo@uw.edu). Please allow up to 48 hours for a response. Please also be sure to do the following in all messages: a) begin the email with a greeting (e.g., "Dear Savannah,"), b) provide context for the email (e.g., "I am a student in SOC 221 and I have a brief question about a concept discussed in class today."), and c) close your email with a signature (e.g., "Best regards, Alex"). Also, I will not respond to any e-mails regarding material that can be found in this syllabus.

COURSE MATERIALS:

You will need two external resources to succeed in this course:

1. Textbook: Illowsky, B., & Dean, S. (2017). Introductory Statistics. Openstax: Rice University. This is a **FREE** textbook. You may download it online at:
   https://openstax.org/details/introductory-statistics
   You have several download options:
   - PDF—to open on your computer or smart device
   - Kindle
   - iBook

   If you prefer reading hard copies, you may also order a copy from amazon. Hardcovers start at $27.64 on Amazon and paperbacks start at $24.00. Although the textbook is free, Openstax gives you an opportunity to donate to their organization to support the free textbook movement. Please consider donating at least a few dollars.
2. Calculator: A calculator that can add, subtract, multiply, divide, and take square roots is required. During tests & quizzes, this will need to be a device that is not connected to the internet (e.g., smartphone, laptop)

I will not always cover everything from the text and readings in lecture, and everything I cover in lecture will not always be found in the readings. To be successful in this course, it is important that you do the readings *and* attend lecture. It is also important for you to think about how the readings and lecture content are related. Additionally, your textbook includes examples with and calculation instructions for graphing calculators. I do not want you to learn how to calculate these statistics on a graphing calculator. You may skip over these examples. We will be learning how to calculate these statistics in other ways during class.

ASSIGNMENTS & GRADING:

Students will have multiple opportunities each week to earn points toward successful completion of the course. Thoughtful and thorough attention to the following assignments will be imperative for this:

1. **In-class exercises & participation (60 points; 20% of final grade):** In-class work (worth 4 points each day) will take place during most class meetings other than on test days. This may be a written answer to a prompt at the beginning of class, in-class group work, a combination of these, or something else entirely.
2. **Homework (140 points; 46.67% of final grade):** Seven 20-point homework assignments will be assigned throughout the term. All assignments will be posted and must be submitted via Canvas. *Homework will only be accepted and graded if it is submitted in **ONE** PDF or Word document, with work shown below the corresponding question (i.e., do not attach your work for all problems at the end).* You do not have to show your work, but you encouraged to do so, as you can receive partial credit for incorrect answers if your work follows an appropriate logic. All late assignments will be docked three points for each day they are late; they will not be accepted at all if they are more than two days late. If all seven homework assignments are completed, the lowest homework grade will be dropped and the highest grade will count double.
3. **Exams (100 points; 33.33% of final grade):** Two exams, each worth 50 points, will take place this term. One will take place around the middle of the quarter and the second will take place on the last day of class. All students can refer to ONE 8.5" x 11" cheat sheet (of their own design) during exams. Calculators are strongly recommended and can only be used if they are on a device that cannot connect to the web.
4. **Community Note-Taking Rotation (possible 10 *extra* points for entire class):** Many students find it difficult to take notes and pay attention to lecture at the same time. To help alleviate this strain, this course will implement a community note-taking schedule. On the first day of class, interested students will sign up for up to two class sessions during which they will take lecture notes for use by the entire class. Students should forward those notes to me (shlarimo@uw.edu) for posting online. Students who prefer not to participate in this activity should notify me to discuss an alternative contribution to community learning. If, at the end of the quarter, there are **two** sets of notes for each day, the entire class will receive 10 extra points.

COURSE SCHEDULE & ASSIGNMENT DEADLINES:

DATE	TOPIC	READING	DUE DATES & NOTES
6/20	Introduction; Key Terms; Populations and Samples	1.1, 1.2	
6/22	Levels of Measurement; Frequency Tables	1.3, 1.4	Homework 1 Due on **Sunday 6/24** at 11:59pm
6/27	Measures of Central Tendency and Variability; Displaying Data	All of Chapter 2	
6/29	Probability; Probability Distributions	3.1-3.3, 4.1, 5.1	Homework 2 Due, 11:59pm
7/4	No Class, University Holiday		
7/6	The Normal Distribution	6.1	
7/11	Sampling Distributions; The Central Limit Theorem; Logic of Inference	7.1, 7.3	Homework 3 Due, 11:59pm
7/13	Confidence Intervals for Means	8.1-8.2	
7/18	Confidence Intervals and Proportions and Midterm Review	8.3	Homework 4 Due, 11:59pm
7/20	Midterm: Don't forget your calculator!		*Savannah will be out of town*
7/25	Hypothesis Test for One Sample	9.1-9.6	
7/27	Hypothesis Test for Two Samples	10.1-10.5	Homework 5 Due, 11:59pm
8/1	Two-Way Tables and Chi-Square	11.1-11.5	
8/3	Scatterplots and Correlation	12.1-12.4	Homework 6 Due, 11:59pm
8/8	Bivariate Regression and Inference for Regression	12.5-12.6	
8/10	Multivariate Regression	TBD	Homework 7 Due, 11:59pm
8/15	Final Exam Review		
8/17	Final Exam: Don't forget your calculator!		