Sociology 312 – Introduction to Statistics in Sociology (01:920:312:03 & 04)
Spring 2023

Lecture meetings:	**Art History Hall, ARH-100, Douglass Campus**
	Tuesdays and Thursdays, 2:00 – 3:20 pm
Recitation meetings:	**Loree Hall (Computer Lab), Douglass Campus**
	Wednesdays 12:25 – 1:20 pm (Section 3)
	OR
	Thursdays 4:05 pm – 5:00 pm (Section 4)

Course web page is available on Canvas

PROFESSOR:	Lei Lei
Office hours:	Thursdays 11:00 am – 12:00 pm via zoom or in person
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E-mail:	llei@sociology.rutgers.edu

Zoom link: https://rutgers.zoom.us/j/91308957580?pwd=dkRoNFpUTHkxQ3JXbkxSTTVocWdGUT09

TEACHING ASSISTANT:	Yung-Ying Chang
Office hours:	Tuesdays 3:30 – 4:30 pm via Zoom
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E-mail:	yungying.chang@rutgers.edu

Zoom link: https://rutgers.zoom.us/my/yc1031?pwd=STBYQjNhS0w1QmMxbGxnTDZuL2RPdz09.

Course Overview
This course is designed to be a first course in statistical methods for undergraduates majoring in sociology and other social science disciplines. It provides a general introduction to descriptive and inferential statistics as used in social sciences. You will learn techniques for summarizing sample data, examining relationships between variables, generalizing from sample statistics to population parameters, and testing statistical hypotheses. By the end of the course, you will be familiar with a variety of basic statistical techniques that allow you to answer interesting questions. A significant portion of the class will be devoted to "pencil and paper" problem solving. Meanwhile, we will learn how to use a statistical software (called SPSS) to analyze data from the General Social Survey (GSS).

No prior preparation in statistics is required. If you can add, subtract, multiply, and divide, and follow simple rules of logical deduction, you have the tools necessary to succeed in this course. ***However, it is imperative that you keep up with the progress of the course at all times!*** Due to the extremely technical and cumulative nature of this course, ***once you fall behind, it will be very difficult to catch up***. Therefore, regular attendance, meticulous notes, and timely completion of assignments are essential. When you feel it is difficult to keep up with the class progress at any point during the semester, please seek immediate help from the instructor or the TA.
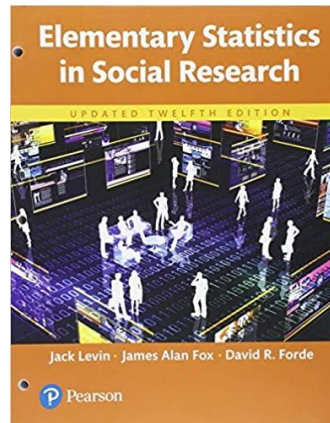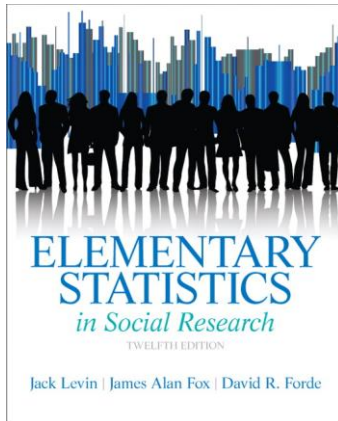
Learning Goals
1. Develop an understanding of fundamental statistical concepts and theories.
2. Be able to choose and apply appropriate statistical methods according to the type of data.

3. Know the procedures to calculate the chosen statistics and conduct statistical tests.
4. Know how to use a statistical software to summarize and analyze data.
4. Be able to interpret and write about the results from statistical analysis.

Required Text
Levin, Jack A. James Alan Fox, and David R. Forde. *Elementary Statistics in Social Research*, 12th Edition. Pearson. ISBN-13: 978-0205845484

Electronic version: Revel Elementary Statistics in Social Research, Updated Edition 12e

To purchase or subscribe the eTextbook
Please go to: https://www.pearson.com/en-us/subject-catalog/p/elementary-statistics-in-social-research-updated-edition/P200000002945/9780137533732

You can also purchase a loose-leaf version of the book on their website.

Requirements

1. Attendance in lecture is essential for successfully learning the material in this course. Indeed, some topics covered in lecture are not in the textbook, so you are responsible for taking notes. In-class exercises will be completed throughout the semester to reinforce the material from the lecture. These exercises and attendance together are **worth 4% of your course grade**.

2. Attendance in recitation is required and is **worth 2% of your course grade**. If you signed up for Section 3, your recitations are on Wednesdays. If you signed up for Section 4, yours are on Thursdays.

3. Six **individual assignments** are due throughout the semester. These include a combination of problem solving (hand and computer calculations) and interpretation of the results. Students should complete these assignments independently. All assignments are available on the course site. Students will put their solutions in one Word document and upload the document to the course site. Together these assignments are **worth 36% of your course grade (6% each)**.

4. You will be assigned into groups of three students and write a **group paper** together during the semester. In this paper, you will be able to apply the concepts and methods learned during the lectures to answer a few social research questions. You will propose research questions, choose

variables from the GSS data, describe the variables, and analyze the relationships among them using the software SPSS. Then, you draw conclusions based on the results you see. The paper should be about 4 pages long (double spaced with size 12 font) without the Tables. I will provide a skeleton of the paper with instructions of what you need to do in each section to help you structure the paper. You will need to turn in Section 1 of the group paper by the middle of the semester and the full paper by the end of the semester. **The group paper is worth 8% of your course grade.**

5. One in-class midterm examination will be given during the semester as scheduled on the course outline below. **This exam is worth 25% of your course grade**.

6. A non-cumulative final examination will be given during the regularly scheduled final examination time. **The final examination is worth 25% of your course grade**.

Important Note
No make-up exams or late assignments will be permitted unless you contact the instructor **prior to the exam or the due date**. I will leave the assignments open for a few extra days after the due date. We accept late assignments only if you provided legitimate reasons ahead of time. But 10% will be deducted from the assignment score for the lateness.

Technology Access
We will use the software called SPSS to do some basic statistical analysis during this course. You can access SPSS on the computers in Rutgers libraries and computer labs. To access the program when you are **off campus**, you will need to use Rutgers **Virtual Computer Lab** here https://it.rutgers.edu/virtual-computer-labs/. You will log in using your NETID and password like you would for any other Rutgers services.

Please visit the Rutgers Student Tech Guide page for other resources available to all students.
If you do not have the appropriate technology for financial reasons, please email Dean of Students deanofstudents@echo.rutgers.edu for assistance. If you are facing other financial hardships, please visit the Office of Financial Aid at https://financialaid.rutgers.edu/.

Learning resources
Learning Centers: https://rlc.rutgers.edu/
Academic Advising for SAS students: https://sasundergrad.rutgers.edu/advising/advising
Online Learning Tools from Rutgers University Libraries including Rutgers RIOT, Searchpath and RefWorks http://www.libraries.rutgers.edu/tutorials

Academic Misconduct
You should familiarize yourself with the Rutgers University policies and procedures on academic honesty, available at https://slwordpress.rutgers.edu/academicintegrity/wp-content/uploads/sites/41/2014/11/AI_Policy_2013.pdf.   All violations of academic integrity, such as cheating on exams or plagiarizing others' work for written assignments, will be referred to the appropriate authorities and sanctioned accordingly.

Students with Disabilities
In accordance with university policy, if you have a documented disability and require accommodations to obtain equal access in this course, please contact me at the beginning of the

semester. Students with disabilities must be registered with the Office of Student Disability Services and must provide verification of their eligibility for such accommodations.

Counseling, ADAP & Psychiatric Services (CAPS): (848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901 http://health.rutgers.edu/medical-counselingservices/counseling/ CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professionals within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community, and consultation and collaboration with campus partners. Crisis Intervention: http://health.rutgers.edu/medical-counselingservices/counseling/crisis-intervention/ Report a Concern: http://health.rutgers.edu/do-something-to-help/

Violence Prevention & Victim Assistance (VPVA): (848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901www.vpva.rutgers.edu/ The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Attendance and Absence
You are required to attend all class meetings and recitations for your section. **One unexcused absence** is allowed for each student throughout the semester without any punishment. If you have to be absent for an extended period, please email the instructor as soon as possible to make arrangements for assignments and other course tasks.

COURSE OUTLINE

The dates indicated are tentative and may change based upon how this class proceeds. Some topics may take a bit more time and some may take less time than indicated below. Any changes in dates, including assignment due dates, will be announced in class. You are responsible for finding out about any announcements made in class.

Date	Topic and Reading
Tuesday, January 17	Course Overview (Recitation begins on Wednesday)
Thursday, January 19	Introduction Reading: Chapter 1, Introduction – Summary
Tuesday, January 24	Frequency Distributions Reading: Chapter 2, Introduction – 2.11, and 2.13 – Summary
Thursday, January 26	Measures of Central Tendency and Dispersion Reading: Chapters 3 and 4, Introduction – Summary in both chapters
Tuesday, January 31	Measures of Central Tendency and Dispersion (*continued*)
Thursday, February 2	Measures of Central Tendency and Dispersion (*continued*) *Assignment 1 due*
Tuesday, February 7	Probability and the Normal Distribution Reading: Chapter 5, Introduction – Summary
Thursday, February 9	Probability and the Normal Distribution (*continued*)
Tuesday, February 14	Confidence Intervals Reading: Chapter 6, Introduction – 6.7, and Summary *Assignment 2 due*
Thursday, February 16	Confidence Intervals (*continued*)
Tuesday, February 21	Confidence Intervals (*continued*)
Thursday, February 23	Review *Section 1 of group paper due*
Tuesday, February 28	**Midterm Exam**
Thursday, March 2	Hypothesis Testing No reading
Tuesday, March 7	T-tests and Difference of Means

Reading: Chapter 7, Introduction – 7.9, 7.12, 7.14, and Summary

Thursday, March 9   T-tests and Difference of Means (*continued*)

Tuesday, March 21   T-tests and Difference of Means (*continued*)

Thursday, March 23   Analysis of Variance
Reading: Chapter 8, Introduction – 8.4, and 8.7 – Summary
Assignment 3 due

Tuesday, March 28   Analysis of Variance (*continued*)

Thursday, March 30   Crosstabulation and Chi-square
Reading: Chapter 2, 2.12, and Chapter 9, Introduction and 9.2

Tuesday, April 4   Crosstabulation and Chi-square (*continued*)
Assignment 4 due

Thursday, April 6   Crosstabulation and Chi-square (*continued*)

Tuesday, April 11   Correlation and Regression
Reading: Chapter 10, Introduction – 10.5, and
Chapter 11, Introduction – 11.4
Assignment 5 due

Thursday, April 13   **No class**

Tuesday, April 18   Correlation and Regression (*continued*)

Thursday, April 20   Correlation and Regression (*continued*)

Tuesday, April 25   Association and Causality
Assignment 6 due

Thursday, April 27   Review
Completed group paper due

Final Exam   **May 5 (Friday) 9:00 – 11:00 am**