

**Sociology 312 – Introduction to Statistics in Sociology (01:920:312:01 & 02)
Fall 2024**

Lecture meetings: Lucy Stone Hall B269
Mondays and Thursdays, 10:20- 11:40am

Recitation meetings: Tillett Hall Computer Lab
Mondays 4:05 pm – 5:00 pm (Section 1)
OR
Mondays 2:15 pm – 3:10 pm (Section 2)

Course web page is available on <http://canvas.rutgers.edu>

PROFESSOR: Lei Lei
Office hours: Thursdays 1:30 – 2:30 am in person or via Zoom
And right after class.
Office location: 047 Davison Hall, Douglass Campus
E-mail: llei@sociology.rutgers.edu
Zoom link:

TEACHING ASSISTANT: Youngjin(YJ) Chae
Office hours: TBD
Office location: 136 Davison Hall, Douglass Campus
E-mail: yj.chae@rutgers.edu
Zoom link:

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

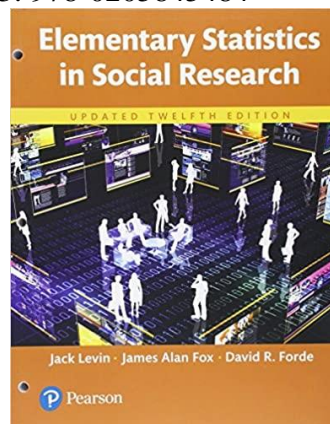
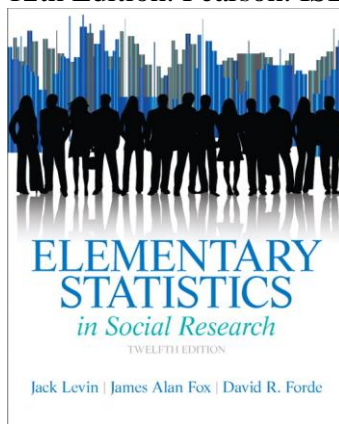
point during the semester, you are recommended to seek immediate help from the instructor or the TA.

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

<https://www.pearson.com/en-us/subject-catalog/p/elementary-statistics-in-social-research-updated-edition/P200000002945/9780134414324>

You can also purchase a loose-leaf version of the book online.

Requirements

1. Attendance in lecture is essential for successfully learning the material in this course. Indeed, some topics covered in lecture are not covered in the textbook. In-class exercises will be completed throughout the semester to reinforce the material from lecture. These exercises and attendance together are **worth 6% of your course grade**.
2. Attendance in recitation is required and is **worth 4% of your course grade**.
3. Six 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)**.

- Two exams will be given during the semester as scheduled on the course outline below. The two exams are **worth 54% of your course grade (27% each)**.

Note

No make-up exams or late assignments will be permitted unless you contact the instructor prior to the exam or the due dates.

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>

Technology

Please visit the Rutgers Student Tech Guide page for 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/>.

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 08901 www.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.

<u>Date</u>	<u>Topic and Reading</u>
Thursday, September 5	Course Overview (Recitation begins)
Monday, September 9	Introduction Reading: Chapter 1, Introduction – Summary
Thursday, September 12	Frequency Distributions Reading: Chapter 2, Introduction – 2.11, and 2.13 – Summary
Monday, September 16	Measures of Central Tendency and Dispersion Reading: Chapters 3 and 4, Introduction – Summary in both chapters
Thursday, September 19	Measures of Central Tendency and Dispersion (<i>continued</i>)
Monday, September 23	Measures of Central Tendency and Dispersion (<i>continued</i>) Assignment 1 due
Thursday, September 26	Probability and the Normal Distribution Reading: Chapter 5, Introduction – Summary
Monday, September 30	Probability and the Normal Distribution (<i>continued</i>)
Thursday, October 3	Confidence Intervals Reading: Chapter 6, Introduction – 6.7, and Summary Assignment 2 due
Monday, October 7	Confidence Intervals (<i>continued</i>)
Thursday, October 10	Confidence Intervals (<i>continued</i>)
Monday, October 14	Review
Thursday, October 17	Midterm Exam
Monday, October 21	Hypothesis Testing No reading
Thursday, October 24	T-tests and Difference of Means Reading: Chapter 7, Introduction – 7.9, 7.12, 7.14, and Summary

Monday, October 28	T-tests and Difference of Means (<i>continued</i>)
Thursday, October 31	T-tests and Difference of Means (<i>continued</i>)
Monday, November 4	Analysis of Variance Reading: Chapter 8, Introduction – 8.4, and 8.7 – Summary Assignment 3 due
Thursday, November 7	Analysis of Variance (<i>continued</i>)
Monday, November 11	Crosstabulation and Chi-square Reading: Chapter 2, 2.12, and Chapter 9, Introduction and 9.2
Thursday, November 14	Crosstabulation and Chi-square (<i>continued</i>) Assignment 4 due
Monday, November 18	Crosstabulation and Chi-square (<i>continued</i>)
Thursday, November 21	Correlation and Regression Reading: Chapter 10, Introduction – 10.5, and Chapter 11, Introduction – 11.4 Assignment 5 due
Monday, November 25	Correlation and Regression (<i>continued</i>)
Tuesday, November 26	No class
Monday, December 2	Correlation and Regression (<i>continued</i>)
Thursday, December 5	Association and Causality Assignment 6 due
Monday, December 9	Review
Final Exam	December 23 9:00 –11:00 am