

RUTGERS UNIVERSITY
Department of Statistics

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Time: MW 7:30-8:50PM
Room: Canvas online
PH 115 Busch
Office Hours: W 12-1PM
(By appointment only)

01:960:211:03 (10106) – STATISTICS I

Spring 2022

Learning Goals: The emphasis in this course will be on describing, organizing, and making conclusions and inferences from quantitative information using both data-analytic and graphical techniques. Students will be able to formulate, evaluate, and communicate conclusions and inferences from quantitative information. They will be able to apply statistics based mathematical formulas to reason and reach conclusions.

Course Web Site: <https://canvas.rutgers.edu> (verify your NetID and email address). You must have access to Canvas to attend remote class sessions and to upload PDFs (not images or Word) all in one file when required.

Textbook: N. A. Weiss. *Introductory Statistics (10th ed.)*. Pearson Addison-Wesley. ISBN 9780321989178. Student Solutions Manual is strongly recommended. Other optional textbook materials are not required.

Grading: (standard Rutgers grading scale will be used)	Exams (75%) 2 Midterms: 20% each Final: 35%	Homework & Quizzes (25%) Homework: 15% Popup questions (videos): 10%	Extra Credit (5%) Details to be provided near the end of the semester
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- Midterms and Final are closed book exams. This may change if the class becomes a remote class. The Final will be cumulative. You may have with you the Statistical Formula and Tables in the textbook any two pages of notes (8-1/2 by 11, both sides) to assist you during the exams. Exams will cover materials from lectures, readings, homework, etc. Some questions will be straight forward while others will require you to integrate what you've learned. A simple calculator is required. You must show your work to receive full credit on exams.
- Lectures will focus on the core material of the course. Simpler topics may be left to the readings without comments. Some of the optional sections in the textbook may not be covered. Use homework assignments as a guide.
- Reading assignments should be completed prior to each lecture. Bring a calculator to every class and required copies of statistical tables later in the semester. Students are responsible for all the assigned readings, whether these are covered explicitly in the lectures or not. It's your responsibility to keep up with the lectures and homework assignments which will help you prepare for exams. Homework will not be graded per se but checked for completeness.
- Attendance at examinations is mandatory. If you miss an exam, you will receive zero (0) points unless there was a medical emergency. In such a case, you must provide a letter from your doctor indicating the duration of your illness in a timely manner. You may still be required to take the exam and your score (partial credit) will be taken into consideration when computing the final grade.
- There will be no exception for missing due dates.** You must turn in your assignments (e.g., exams, homework, quizzes) on-time. Late submissions will NOT be accepted. Corrections to exams MUST be requested within one week after they have been returned.
- Please follow basic rules of politeness: be on time, be quiet, pay attention, do not leave early except in emergency.
- Rutgers **Honor Pledge** and **Academic Integrity** is always in effect: Don't cheat. Don't plagiarize.
(<http://nbacademicintegrity.rutgers.edu/home/academic-integrity-policy/>)

CLASS SCHEDULE (Subject to change)

Reading	Topics	Reading	Topics
Ch. 1	The Nature of Statistics	Ch. 8	Confidence Intervals for One Population Mean
Ch. 2	Organizing Data	Ch. 9	Hypothesis Tests for One Population Mean
Ch. 3	Descriptive Measure	Ch. 10	Inferences for Two Population Means
Ch. 14	Descriptive Methods in Regression & Correlation	Ch. 12	Inferences for Population Proportions
MIDTERM I & HW Chs. 1-3, 14 Due February 16		FINAL & HW Chs. 8-10, 12 Due May 9	
Ch. 4	Probabilities Concepts	Final Exam is cumulative	
Ch. 5	Discrete Random Variables		
Ch. 6	The Normal Distribution		
Ch. 7	The Sampling Distribution of the Sample Mean		
MIDTERM II & HW Chs. 4-7 Due March 23			

Spring Recess: March 12-20
Reading Days: May 3-4

HOMEWORK (Subject to Change)

Homework (HW) problems will be collected, and it will be graded for **completeness and not accuracy**. Given the applications nature of this course, the more you practice solving problems, the better you will become at it. It is essential that you complete all the HW assignments to succeed in the course. For additional review and questions, you should see **Chapter in Review** and tryout **Review Problems** at the end of each chapter.

Chapters Covered	Problem Numbers (You try it!)
Ch. 1	1.9, 1.19, 1.21, 1.43, 1.49
Ch. 2	2.2, 2.27, 2.81, 2.85, 2.93, 2.99, 2.143
Ch. 3	3.27, 3.63, 3.141, 3.167, 3.179, 3.209
Ch. 4	4.13, 4.19, 4.27, 4.61, 4.95, 4.117, 4.143, 4.185, 4.219, 4.257
Ch. 5	5.35, 5.77, 5.101
Ch. 6	6.35, 6.59, 6.63, 6.81, 6.99, 6.105, 6.167
Ch. 7	7.11, 7.41, 7.67, 7.71
Ch. 8	8.17, 8.19, 8.77, 8.79, 8.81, 8.89, 8.129
Ch. 9	<u>Skip Sections 9.6-9.7</u> 9.15, 9.23, 9.35, 9.41, 9.63, 9.83, 9.84, 9.101, 9.113, 9.114
Ch. 10	<u>Skip Sections 10.4, 10.6</u> 10.13, 10.23, 10.45, 10.50, 10.51, 10.56, 10.79, 10.80, 10.86, 10.159, 10.165
Ch. 12	12.9, 12.51, 12.59, 12.85, 12.97, 12.107, 12.113
Ch. 14	14.23, 14.27, 14.43, 14.55, 14.59, 14.95, 14.99, 14.145

General Advice to Students: Attend, Read, Study

Attend Every Lecture

Attendance is required in this class, as in all college classes, whether attendance is recorded or not. Never plan anything to conflict with the class hours. If you miss a class, you are still responsible for assignments, announcements, and the material covered during your absence. It is a good idea to make friends with a few people who can give you notes, in case sudden illness or injury forces you to miss a class.

Listen Actively

Don't let your mind wander in class, but pay close attention and try to learn as much in class as you can.

Take Careful Notes

It is a good idea to write down as much of each lecture as you can. Lectures may contain information that is not in the book and also let you know what to emphasize in your study of the texts. Do not expect to understand everything immediately. In many cases you will need to study your notes to understand difficult concepts.

Read the Assigned Texts

Read assignments carefully. It is a good idea to glance through a chapter before reading it to get an overview; then read it carefully. Use the Key Terms at the end of each chapter, and use a dictionary when needed.

Study Ideas and Tips

The rule of thumb for college classes is: "For every hour of lecture, you should allow three hours for study." Set aside time to study in a quiet environment. Different people like different methods of study, but here are some tips:

1. At the end of each week, recopy your class notes neatly, concentrating on the flow of ideas. Things will fit together better, and you will discover the important themes that reoccur. Keep a list of questions to ask in class.
2. Study sections of the text (that means re-read and re-think until you understand). Pay special attention to sections that are mentioned in class as important.
3. Make flash cards of key definitions and ideas. Use the Chapter in Review, Key Terms, and Review Problems at the end of each chapter in the book. Materials from the CD that accompany the book are also recommended.
4. Form study groups with other students in the class. Get together and review notes, discuss readings, and pose questions to one another.
5. Use campus resources. Contact one of the Rutgers Learning Centers for help with tutoring: <http://rlc.rutgers.edu/tutoring.shtml>.
6. Don't wait until the last minute to read or to study for exam.

Student-Wellness Services:

Just In Case Web App

<http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ www.rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional 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.

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.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Scarlet Listeners

(732) 247-5555 / <http://www.scarletlisteners.com/>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.