

COURSE SYLLABUS

Rutgers University, School of Management and Labor Relations

Statistics for Human Resource Management

Rutgers University – Spring 2024

37:533:440:02

Thursdays, 10:20 AM- 1:20 PM

Professor: Lawrence Houston III	Classroom: LSH-A121
Office: 94 Rockafeller Road, JLB-212	Email: via CANVAS
Office Hours: By appointment	Phone: (848) 445-1051

TEXT: Salkind, N. J. (2021). *Statistics for People Who (Think They) Hate Statistics: Using Microsoft Excel* (5th ed.). Thousand Oaks, CA: Sage. ISBN-13: 978-1071803882

A free and open companion website for this textbook is available to help you study. This site, at <https://study.sagepub.com/salkind5e>, includes the data sets for the exercises in the book, as well as practice quizzes, flashcards, videos, and journal articles.

COURSE DESCRIPTION: This course is designed to introduce statistical concepts and analyses that are critical to Human Resource Managers. Emphasis will be placed on the basic concepts of quantitative analysis including models used to explore causality, an introduction to multivariate analysis, and the use of Microsoft Excel, a computer program used for statistics. Importantly, the course will focus on understanding, applying, and interpreting statistical techniques, rather on the derivations of methods or performance of calculations. Students are expected to take the material/concepts presented in class and apply them through a series of in-class activities, homework assignments, and quizzes. The overall goal of the course is not only to help students understand the mathematical/statistical concepts presented but also to assist in the application of these procedures.

COURSE OBJECTIVES: The major objectives of this course are:

1. To develop an understanding of the role played by statistics in the overall process of organizational research.
2. To learn an array of descriptive procedures for displaying statistical information in graphic and narrative form.
3. To learn a variety of tests and procedures that can be useful in data analysis, subsequent hypothesis testing and decision-making activities.
4. To demonstrate a critical understanding of how these tests can be used, their major weaknesses and strengths, and the critical assumptions underlying their legitimate application.
5. To provide a foundation of statistical knowledge for pursuing more advanced statistical methods in future courses.
6. To learn to apply statistical concepts, scientific reasoning, and logic to organizational problems, such as adverse impact or discriminatory hiring decisions.

COURSE POLICIES: To be ready for class discussion and to help you understand the course material, you must complete the assigned readings *before* class to get the most out of our class

sessions. Attendance and active participation are *critical* to your success in this class, so *you are strongly urged to prepare for and participate in every class*. I expect you to prepare for and be engaged in *all* course activities and discussions. Preparation and active engagement greatly enhance your learning as well as those of your classmates.

If you do miss a class, it is *your responsibility* to contact another class member to get any material missed, including schedule changes. If you are absent from class, do not contact the professor for a complete review of the lecture that you have missed. Instead, contact another class member for the material, and then contact the teaching aide or the professor if you have difficulty with the material after you have reviewed the notes obtained from another student. **If your absence is due to the observation of a major religious holiday, please provide notice of the date to the professor via email by the Thursday of the second week of classes, January 25, 2024.**

OVERVIEW OF COURSE FORMAT: Our course will be conducted during our scheduled class time on Thursdays from 10:20-1:20 PM in the Lucy Stone Hall, Room A121.

We will start by discussing any questions you have about the reading, practice problems, or quiz. Then, I will provide a review of the day's topic. Please note that I assume that you have completed the readings and quiz prior to class. We will often use class time to work with actual datasets in Microsoft Excel. As this time goes fast - it is imperative that you read the assigned materials before class. Please also note that class will start and end promptly, be sure to show up to LSH-A121 a few minutes early.

COURSE PORTAL: The Canvas learning management system will be the primary home for this course (<https://rutgers.instructure.com/courses/275142>), so you must be familiar with this mode of interaction as it will house the syllabus, PowerPoint slides for the lecture notes, assignments, and contact information. To access Canvas, you must use your net ID and password. All course announcements are posted to Canvas and sent to your Rutgers email address. You are responsible for regularly checking your Rutgers email address or forwarding your Rutgers email to an address that you do check on a regular basis.

TOP HAT: We will be using Top Hat Pro (www.tophat.com) for class participation. You will be able to review lecture videos and submit answers to questions using Apple or Android smartphones and tablets, laptops, or through text message. For instructions on how to create a Top Hat account and enroll in our Top Hat Pro course, please refer to the invitation sent to your school email address or consult Top Hat's Getting Started Guide (<https://bit.ly/31TGMIw>).

If you already have a Top Hat account, go to [app.tophat.com/e/266354] to be taken directly to our course. If you are new to Top Hat, go to Canvas and follow the link to Top Hat (lefthand column). **DO NOT** join the course using the join code, you must register via Canvas.

If you have already purchased Top Hat for a separate course, you will not be prompted to pay again. The cost of your subscription will be \$20 for the entirety of the semester. If you know one of your courses will be using Top Hat in the Spring, you can opt into purchasing one year of access for \$30.

Should you require assistance with Top Hat at any time, please contact their Support Team directly by way of email (support@tophat.com), the in-app support button, or by calling 1-888-663-5491.

Your responses to the quizzes will be graded, and your responses to the attendance poll questions do influence your overall participation grade. In order for your responses to be recorded and for you to receive credit, you will need to register with Top Hat at least 24 hours prior to our second class. Therefore, you must register by 10:20 AM on Thursday, January 25th.

EVALUATION CRITERIA AND POLICY:

1. *Midterm Exam* (25%).
2. *Final Exam* (25%).
3. *Quizzes* (20%).
4. *Homework* (25%).
5. *Participation* (5%).
6. *Extra Credit* (+ 5%).

Assignments and exams used to enhance your learning experience in this course include:

1. **Readings:** You are responsible for the material covered in the book *prior to attending class*. Please note that the week's readings are specified in the class schedule on the following pages. In addition to these readings, the professor may assign supplemental readings throughout the semester. These supplemental readings do not appear on the schedule as these readings will be assigned at the professor's discretion.
2. **Exams (50pts):** One mid-term exam and one final exam will be given on the material covered in the class and the assigned readings. Exams will be based on the readings, material discussed in class, quizzes, and homework assignments.
3. **Quizzes (20pts):** Eight in-class quizzes will be given throughout the semester and will require that you understand the different terms and definitions discussed in the textbook. Quizzes will be administered during our Thursday classes using Top Hat.
4. **Homework (25pts):** Students will be responsible for the completion of five homework assignments. The purpose of the assignment is to assist students in applying their understanding of the statistical procedures discussed in class as well as to provide an opportunity for students to respond to the readings.

Due Dates: Homework problems assigned throughout the semester are due on Thursday by 8 AM. The midterm will be administered during our regular class hours, and the final will be administered during Finals Week.

Lateness: It is expected that students will turn in all homework assignments and exams on or before the due dates. **NO late homework or exam will be accepted** unless you receive prior approval by the professor AND have an official document that excuses you from meeting the deadline (e.g., a note from the ODOS or a doctor treating your illness/injury). In rare

circumstances where an alternative arrangement for a missing homework assignment or exam is necessary, it needs to be discussed with the professor prior to the due date.

Academic Integrity: Each student's homework and examinations must be done independently. You are allowed to discuss with each other orally about the assignments and its relation to materials covered in class, but you are to complete your own work. Looking at or copying other's work is strictly forbidden, and if found, all students involved will receive a 0 on that assignment. **All incidents of academic dishonesty are reported to the HRM Program, the SMLR Academic Integrity Facilitator, as well as the Rutgers University Office of Student Conduct.** All academic integrity violations are retained in a student's records for 10 years and will be disclosed to any employer or graduate school that requests that information. Consult the official Rutgers University document entitled "Academic Integrity at Rutgers University" regarding your responsibilities for maintaining academic integrity:
<http://academicintegrity.rutgers.edu/>.

5. **Participation (5pts):** The classroom environment we cultivate is important for the success of this course, and it is a function of each of our contributions. Attendance will be taken using Top Hat. However, active participation and engagement are more than showing up to class and talking, it includes actively contributing to a professional environment. If you are disruptive in class, engaged in counterproductive activities (e.g., social media, unrelated web browsing, side conversations), and so on, you will not earn participation points.

Many class activities will involve your personal laptop. You are not to use class time to browse websites, spend time on Facebook, Twitter, or other social media, or email. Additionally, you should not send/receive text messages or engage in any other phone/computer activities that are unrelated to class.

6. **Extra Credit (5pts):** Students will have the opportunity to earn up to five extra credit points by participating in a survey study. Following the procedures outlined in the textbook, the purpose of the survey study is to better understand how employees' choice of relationship-building strategies influences their well-being, performance, and willingness to voice new ideas for improving the overall functioning of their organization or express concerns about harmful work practices. You must use this [link](#) to sign up for the study by February 8, 2024.
 - a. **Employed:** If employed, you will be asked to complete two surveys as a participant in this study. The first survey will be sent on February 12th and must be completed by February 18th. You will be asked to complete a second survey the week of February 26th and must be completed by March 3rd. After completing the first survey, you will also be asked to email your supervisor a brief online survey that is estimated to take about 10 minutes to complete. **Both employee surveys and the supervisor survey must be completed by March 3rd.** All individual responses will be confidential and only shared with the researcher (Dr. Lawrence Houston III).
 - i. *Monetary Compensation (Student).* By participating in the study, employees will be compensated \$5 after completing each survey (i.e., a total of \$10 for completing two surveys). Your supervisor will also receive \$5 upon completing the survey. Once all three surveys are completed (two employee surveys and one supervisor survey), employees will receive an additional \$5.

- ii. *Extra Credit (Student)*. To receive extra credit, all three surveys must be completed—that is, employees must complete both surveys and have their supervisor complete a brief survey. If employed, you will earn 2.5 extra credit points toward your grade.
- b. **Not Employed:** If you are not employed, you could have another person currently employed (e.g., coworker, friend, or family) participate in the study on your behalf. This person would be asked to complete two surveys as a participant in this study. The first survey will be sent on February 12th and must be completed by February 18th. You will be asked to complete a second survey the week of February 26th and must be completed by March 3rd. After completing the first survey, you will also be asked to email your supervisor a brief online survey that is estimated to take about 10 minutes to complete. **Both employee surveys and the supervisor survey must be completed by March 3rd.** All individual responses will be confidential and only shared with the researcher (Dr. Lawrence Houston III).
 - i. *Monetary Compensation (Employee)*. By participating in the study, employees will be compensated \$5 after completing each survey (i.e., a total of \$10 for completing two surveys). The supervisor will also receive \$5 upon completing the survey. Once all three surveys are completed (two employee surveys and one supervisor survey), employees will receive an additional \$5.
 - ii. *Extra Credit (Student)*. To receive the 2.5 extra credit points toward your grade, all three surveys must be completed—that is, employees must complete both surveys and have their supervisor complete a brief survey.
- c. **Additional Points:** You may earn an additional 2.5 extra credit points by having a second person currently employed (e.g., coworker, friend, or family) participate in the study. This person would have to complete both employee surveys and have their supervisor complete a survey to receive extra credit. In doing so, if your final grade is B+ (85pts), for example, receiving the full 5 extra credit points would boost your grade to an A (90pts).

Grading System: Grades will be assigned using the following scale. No curve or score adjustments will be given.

Letter Grade	Percentage of Points	Letter Grade	Percentage of Points
A	100 to 90	C+	75 to 79.9
B+	85 to 89.9	C	70 to 74.9
B	80 to 84.9	F	< 70

ACCOMMODATIONS: I am committed to providing a welcoming and accessible classroom for all students. Students who need accommodations due to a disability should provide me with the appropriate documentation from the Office of Disability Services for Students as early in the semester as possible, and definitely before the first exam.

University Statement on Accommodations: “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 professor and discuss the accommodations with him as early in your courses as possible. To begin this process, please complete the Registration form on the ODS website at: <https://ods.rutgers.edu/students/registration-form>.”

COURSE QUESTIONS: Should you have any administrative questions about homework, exams, due dates, etc., please take the following steps: (1) first, check the syllabus; (2) next, you can check the CanvasChat to see whether others may have had the same question. (3) If your question has not been asked or answered, then you can pose your question in the CanvasChat. (4) If you do not receive a response to your question within 24 hours, then you should email the professor.

ONLINE COURSE ASSESSMENT: Your constructive assessment of this course plays an indispensable role in shaping education at Rutgers. Upon completing the course, please take the time to fill out the online course evaluation.

INTELLECTUAL PROPERTY OF COURSE MATERIAL: All materials generated for this class, including but not limited to the syllabus, in-class materials, and exercises, may not be copied, sold or made available to third parties (including note-taking services), published, broadcasted, reprinted, included in your blog, posted on any websites or sent via text messaging from your phone without the explicit written permission of the professor. Any material that is distributed without such consent will be seen as a direct violation of academic integrity.

Class Schedule

Subject to modification at professor's discretion. You will be notified of any changes.

Week	Date	Topic	Reading	Assignments Due
1	1/18	Statistics or Sadistics? It's Up to You Getting Started in Excel	Chapter 1 Chapter 2	
2	1/25	Computing and Understanding Averages Understanding Variability	Chapter 3 Chapter 4	Quiz #1
3	2/1	Creating Graphs: A Picture Really is Worth a Thousand Words	Chapter 5	Homework #1
4	2/8	Computing Correlation Coefficients	Chapter 6	Quiz #2
5	2/15	Understanding Reliability and Validity: Just the Truth	Chapters 7	Quiz #3 Homework #2
6	2/22	Testing Your Questions Probability and Why It Counts	Chapter 8 Chapter 9	Quiz #4
7	2/29	Significantly Significant: What It Means for You and Me	Chapter 10	
8	3/7			MIDTERM Chapters 1-10
SPRING BREAK				
9	3/21	Only the Lonely: The One-Sample Z Test	Chapter 11	Quiz #5 Homework #3
10	3/28	Tests Between the Means of Different Groups Tests Between the Means of Related Groups	Chapter 12 Chapter 13	Quiz #6
11	4/4	Two Groups Too Many? Try Analysis of Variance	Chapter 14	Quiz #7 Homework #4
12	4/11	Factorial Analysis of Variance	Chapter 15	Quiz #8
13	4/18	Testing Relationships Using Correlation Coefficient Testing Relationships Using Linear Regression	Chapter 16 Chapter 17	Homework #5
14	4/25	Chi-Square Test (and Adverse Impact)	Chapter 18	
Final	5/2			FINAL EXAM Chapters 11-18