

COURSE SYLLABUS

Rutgers University, School of Management and Labor Relations
Statistics for Human Resource Management
Rutgers University – Spring 2026
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Instructor:	Rania Elanwer, Ph.D.
Email:	re308@connect.rutgers.edu
Course Meeting:	Asynchronous
Student Hours:	I will hold student hours each week in my personal ZOOM room: - Day and Time: Wednesdays from 10:30am-11:30am https://rutgers.zoom.us/my/re308 *If the available time does not work for you, no worries. Send me an email to set up an alternative time.
Course Website:	Canvas.rutgers.edu (please regularly check Canvas for syllabus, course info, and other announcements)
Required Course Materials:	The course materials include the interactive text , <i>Informed Decisions Using Data, Seventh Edition</i> , by Michael Sullivan III, along with the accompanying MyLab for Statistics platform , an interactive learning, homework, and assessment tool. Please note: This is an online e-book so no hard copy of a text will be required. Instructions on how to register for the e-textbook and the associated platform are posted on Canvas under Module 0.

Required Software:	<p>You are required to use Microsoft Office (specifically Word and Excel) for projects and data analysis. Students can access these tools for free through the University Software Portal: https://software.rutgers.edu/info/login/</p> <p>Once you have Microsoft Excel, please enable the Data Analysis ToolPak. The process is straightforward, and you can find guidance here: https://support.microsoft.com/en-us/office/load-the-analysis-toolpak-in-excel-6a63e598-cd6d-42e3-9317-6b40ba1a66b4</p>
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COURSE DESCRIPTION: This course is designed to introduce statistical concepts and analyses that are critical to Human Resource professionals. 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 than 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. Understand the role of statistics and quantitative methods in organizational research and decision-making.
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.

SMLR Learning Objectives: Statistics for HRM is designed to specifically address the following SMLR learning goals:

II. Quantitative Skills:

Apply appropriate quantitative and qualitative methods for research workplace issues.

- Formulate, evaluate, and communicate conclusions and inferences from quantitative information
- Apply quantitative methods to analyze data for HR decision making including cost-benefit analyses, ROI, etc.

- Apply qualitative methods appropriately, alone and in combination with quantitative methods

III. Research Skills:

Demonstrate an ability to collect, analyze and synthesize information to make logical and informed decisions impacting the workplace. Use evidence to evaluate hypotheses, theories and approaches to workplace issues.

- Employ current technologies to access information, to conduct research, and to communicate findings
- Analyze and synthesize information and ideas from multiple sources to generate new insights
- Assess and critique relevant evidence and research findings
- Access high-quality historical, qualitative, and quantitative evidence or research
- Use evidence-based analysis to appraise the validity of various hypotheses, theories, and approaches to workplace issues

VI. Applications:

Demonstrate an understanding of how to apply knowledge necessary for effective work performance.

- Apply concepts and substantive institutional knowledge, to understanding contemporary developments related to work
- Understand the legal, regulatory and ethical issues related to their field
- Develop human resource management functional capabilities used to select, motivate, and develop workers
- Understand the internal and external alignment and measurement of human resource practices

COURSE POLICIES: 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.

COURSE PORTAL: The Canvas learning management system will be the primary home for this course, 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.

Spring 2026 Course Structure

I will have class materials posted online weekly. Each week, I expect you to complete the assigned readings, viewings, and/or assignments.

EVALUATION CRITERIA AND POLICY:

1. *Exams* (50%).
2. *Quizzes* (25%).
3. *Group Project and Presentation* (25%).

Quizzes (25%)

Throughout the semester, students will complete approximately five quizzes designed to assess their understanding of key skills, research methods, and analytics covered in the course. All quizzes must be completed on time, as make-up quizzes will not be permitted. To accommodate unforeseen circumstances, the lowest two quiz scores will be dropped when calculating the final grade.

Exams (50%)

There are two exams during the semester. The first exam, after Week 6, will cover all material from the start of the semester through Week 6. The second exam will cover material after the week 6. While earlier content will not be directly tested on the final, this is a cumulative course, so reviewing previous material is recommended to fully prepare.

Final Group Project and Presentation (25%)

This group-based assignment allows students to apply statistical and analytical concepts learned throughout the semester in a collaborative setting. Students will analyze employee data, explore relationships between variables, develop predictive models, extract insights, and draw conclusions to provide actionable recommendations for HR professionals. The assignment is designed to evaluate students' ability to apply statistical methods to real-world HR data, interpret results, and support data-driven organizational decision-making.

Final Report: A concise report summarizing the group's analytics process, key findings, and insights. The report should include visualizations, regression outputs, and clear interpretations of the results.

Oral Presentation: A group presentation highlighting the analytics process, key findings, and HR recommendations based on the data analysis. The presentation should communicate insights effectively to an audience of peers and stakeholders.

Active participation to all group assignments is required. Please Note: Group project will include a peer assessment component. Students who do not

contribute equally to the project, as compared to their group members, may receive a reduced grade or no points for the project.

Extra Credit Opportunity (2%)

After each week, an optional practice assignment will be posted on Canvas to help reinforce and apply the week's material. Completing these assignments can help students strengthen their understanding and boost their overall course grade. Students can earn up to **2%** extra credit by completing at least **50%** of the optional assignments with a score of **80% or higher**, provided they are **submitted by 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/>

The use of AI tools for assignments, or any graded course work is strictly prohibited in this course. All submitted work must be the student's own original effort.

Grading System: Grades will be assigned using the following scale.

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>.”

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.

RUTGERS DIVERSITY STATEMENT

The Division of Student Affairs works to create an environment of inclusion which respects and affirms the inherent dignity, value, and uniqueness of all individuals, communities, and perspectives. Our practices reflect awareness and understanding of the complexity of identity and the increasing interconnectedness of our world. It is our responsibility to promote and maintain a community of compassion, embracing the rich dimensions of diversity, and facilitating opportunities for understanding and the expression of both individual and shared truths.

Class Schedule

Subject to modification at professor's discretion.

Week	Date	Topic	Reading	Assignments Due
1	01/20	Introduction to Statistics and Statistical Thinking	Chapter 1	
2	01/26	Data Collection	Chapter 1	Quiz 1
3	02/02	Organizing and Summarizing Data	Chapter 2	
4	02/09	Data Visualizations Graphical Misrepresentation of Data	Chapter 2	Quiz 2
5	02/16	Numerically Summarizing Data Measures of Central Tendency	Chapter 3	

6	02/23	Numerically Summarizing Data Measures of Position and Outliers	Chapter 3	Quiz 3
7	03/02	Exam 1		
8	03/09	Describing the Relation Between Two Variables	Chapter 4	
	03/16	Spring Break		
9	03/23	Describing the Relation Between Two Variables	Chapter 4	Quiz 4
10	03/30	The Process of Implementing Statistical Analysis Project		
11	04/06	Probability	Chapters 5	
12	04/13	Hypothesis Tests Regarding a Parameter	Chapter 10	Quiz 5
13	04/20	Troubleshoot Group Project: Bring your questions		Continue to work on the project
14	04/27	Exam 2		
15	05/04	Final Group Project		