



Statistics for HRM (Spring, 2026)

37:533:440:90

Instructor: Professor Ralph A. Rodriguez, Ph.D., SPHR

Office Hours (All times EST):

- **WEDNESDAYS 3:00-4:00 PM and 8:00-9:00 PM EST; also, quite happily, by Appointment (in my PUBLIC WebEx Room: see Link on our Canvas Front Page)**
- **Request Appointments via Canvas portal**

Email: **ONLY via Canvas portal; ALL correspondence in the course should be via Canvas, NOT through direct university email addresses**

Statistics for HRM 37:533:440:90	ONLINE (Asynchronous)	For Personal Support, see “Office Hours” above.
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ACTIVE ENGAGEMENT: This is a fully online, asynchronous course. This type of delivery has distinct advantages which I attempt to enhance and some natural disadvantages which I seek to neutralize. In order to make this work, you **MUST** stay current with the Modules. You must diligently and **ACTIVELY** view the training videos in preparation to submit **ALL** assignments, including quizzes, on time. If you know that you are going to experience challenges in this area, please alert me well ahead of time. Note that even “excused” delays will impact your ability to stay current because of the linearity of logic and math based material. Expect an impact on both your understanding and your grade.

RESOURCES REQUIRED FOR STUDENT PREPARATION:

- **REQUIRED** Text: **MAKE SURE YOU GET THE 2nd EDITION of this text.** Privitera, Gregory J. (2019). *Essential statistics for the behavioral sciences (2nd Edition)*. Thousand Oaks, CA: SAGE Publications. ISBN-13: 978-1506386300 (Paperback).
 - Kindle eBook available for @ \$85 on [Amazon \(<-click here, this is a purchase and not a rental\)](#). Print purchases are also available on Amazon for @ \$50 and up (see the same link). If you purchase the text elsewhere, make sure you purchase the actual text (2nd edition) and NOT the student study guide.
 - **Note: On January 8th, I also found a searchable PDF available at the following site for under \$20: [Essential Statistics For The Behavioral Sciences 2Nd Edition – GIFTSQUALITY LTD.](#)**
- “Helps” **FOR APPREHENSIVE STUDENTS/Supplemental Support Site:** As you work through the Modules, especially where you could use additional support, you should access the wealth of **FREE** online materials at <https://edge.sagepub.com/privitera2e> (click on “Student Resources” at the top right of the page). For every assigned chapter, it will benefit you to complete (read, review, or do) the Action Plan, Learning Objectives, Quiz, eFlashcards, Video and Multimedia, Web Resources (this section is recommended but optional), and any SPSS in Focus Screencasts that apply to the chapter.

- **REQUIRED SPSS Software:**
 - This course makes use of **SPSS** for calculations for homework and exams. FREE access is available and may be found at [RU Software Portal - SPSS Statistics Premium Edition 29 w/Amos \(rutgers.edu\)](http://RU Software Portal - SPSS Statistics Premium Edition 29 w/Amos (rutgers.edu)). I downloaded the software on my personal laptop on August 11. The licensing directions are a bit tricky, so please allow for extra time, just in case you need to contact IT Services for help. **You MUST have this software package loaded and ready to use BEFORE the 2nd week of the course!**
- **ADDITIONAL SPSS Resources:** I have sprinkled some excellent SPSS tutorials at appropriate points in the course Canvas site. When you are looking for specific functions or to complete specific Homework/Assignments, you will find an overwhelming wealth of additional resources on Youtube. These are, of course, free... but of uneven quality (although most are really pretty good). The SPSS package, itself, has a VERY GOOD “Help” function right on its primary menu (top, right).
- **STRONGLY Recommended Text (for those who want to MASTER this material):** [Using IBM SPSS Statistics \(2nd Edition\), James O. Aldrich and James B. Cunningham. Sage, 2016. ISBN: 978-1-4833-8357-6. As of this writing on January 8th, available at Amazon in USED PAPERBACK for under \\$10 at \[Amazon.com\]\(http://Amazon.com\): \[Using IBM® SPSS® Statistics: An Interactive Hands-On Approach: 9781483383576: Aldrich, James O., Cunningham, James B.: Books\]\(http://Using IBM® SPSS® Statistics: An Interactive Hands-On Approach: 9781483383576: Aldrich, James O., Cunningham, James B.: Books\)](http://Using IBM SPSS Statistics (2nd Edition), James O. Aldrich and James B. Cunningham. Sage, 2016. ISBN: 978-1-4833-8357-6. As of this writing on January 8th, available at Amazon in USED PAPERBACK for under $10 at Amazon.com: Using IBM® SPSS® Statistics: An Interactive Hands-On Approach: 9781483383576: Aldrich, James O., Cunningham, James B.: Books). You might want to read this in parallel with the Privitera text. It is a “light read” but is VERY helpful with SPSS and illustrates everything with tons of screenshots.

Course Description: This course is an applied course, designed to provide students with an introduction to statistical techniques used to make HRM and other data-based decisions. The context is human resource management, but the applications are also relevant to other business, management and even personal decisions. An emphasis is on fostering (a) a conceptual understanding of different statistical techniques so the student will know which statistical analysis is appropriate for answering which particular applied question (e.g., which training program led to higher productivity?) and (b) a practical set of skills so the student can carry out the analysis and make the correct decision.

The emphasis in this course is on developing a basic understanding of statistics commonly used in human resource management, knowing how to calculate various statistics (whether by calculator or using SPSS), and most importantly, how to interpret results.

SMLR Learning Goals: Statistics for HR is designed to meet sections of two SMLR Learning Goals:

II) Quantitative Skills – Apply appropriate quantitative and qualitative methods for research on 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. (HRM)

VI) Application – 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 internal and external alignment and measurement of human resource practices (HRM)

Course-Specific Learning Goals: Upon completion of this course students will:

1. Understand the fundamentals of sampling and probability and the role they play in inferential statistics.
2. Be able to calculate and use descriptive statistics.
3. Be able to calculate and use statistics for testing significant differences.
4. Be able to calculate and use statistics measuring relationships and prediction.
5. Be able to calculate and interpret statistics commonly used by human resource professionals.
6. Be equipped to make empirically defensible human resource decisions using statistics.

7. Be able to explain analytical outputs both orally and in writing.

In addition, the student will be familiar with SPSS in:

1. Creating a dataset.
2. Defining variables
3. Transforming variables and creating new variables.
4. Performing all statistical analyses covered in the course using SPSS.
5. Interpreting SPSS output.

Readings: Assigned readings from the text are noted in the syllabus. Other related readings will be assigned and posted in the appropriate Modules in Canvas.

Grading: Grades will consist of the following components:

	Weight
Midterm	20%
Final Exam	25%
Student Engagement Survey	10%
Quizzes, Assignments, and Exercises	25%
Teaching Demonstrations	20%

ASSIGNMENT EXPECTATIONS:

Examinations (45%):

There will be two examinations as noted on the course schedule. Each examination will have two parts. Part 1 will consist of objective questions and Part 2 of the test will consist of a number of problems. The “Final Exam” will be partially cumulative with approximately 15% of questions from the first Exam content, a fuller section on 2nd half questions, and an SPSS section. This SPSS section will require you to submit SPSS data and output files (**pics, copies, and files of other software will NOT be accepted**).

Students with learning disabilities or other reasons for taking the examination outside the regular examination parameters should present a statement to that effect with appropriate documentation as early in the semester as possible, but certainly prior to the first midterm examination.

Student Engagement Survey (10%):

At approximately the middle of the course, one Module will focus on the principles that guide survey creation and the characteristics of good surveys that are useful in acquiring reliable and valid data. A very important Assignment is included where you will design your own survey, beginning with the conceptualization of a “MODEL” and ending with an actual finished survey.

Quizzes and Homework (25%):

- Generally, there is one quiz per chapter (2 for Chapter 13). Additionally, there are likely to be several additional quizzes/exercises that will count as quizzes.
- SPSS Assignments are sprinkled throughout the course. They are posted in the Canvas Modules as “Assignments” and will be completed online. In most cases, you will respond with SPSS data and output files. “Pics” of your completed SPSS work will NOT be accepted. Neither will PDFs. You will only receive credit for SPSS files that specifically and directly answer SPSS questions. These “Assignments” will count as “Quizzes”.
- Other Assignments and Exercises may be assigned. They will be graded and count as quizzes.
- Generally, you should expect both a quiz grade and an assignment/exercise in most of our Modules. That will result in approximately 18-24 grades in this category. While no allowances will be made for missing quizzes, assignments, and exercises, your lowest TWO grades will not count towards your course grade.

Two Teaching Demonstrations (20%):

Online meetings will be arranged, where you will teach me (the Professor) how to calculate DESCRIPTIVE statistics and interpret them, using a small data sample that will be supplied to you. Prior to your teaching session with me, you will rate and review three Youtube videos that “teach”/demonstrate the same type of content.

Likewise, for a second teaching session, you will rate and review (in writing) three Youtube videos that discuss either the ANOVA test OR the REGRESSION test. Then, you will design, create and present a session (8-12 minutes) to me where you will demonstrate that test:

- For ANOVA: make up 3 groups with at least 5 members in each group, assign each a value on some created variable (you can use my in-class and online examples as a template but do NOT use the same exact values), explain your hand computations; then, enter the same values in SPSS, perform an ANOVA, and demonstrate that the resulting ANOVA table is the same as the one you produced by hand. **OR...**
- For Regression: Explain the general principles underlying a regression, sketch them out by hand (generally but NOT actual computations of numbers, just explaining the principles that lead to producing a formula); create two scale variables in SPSS for 10 different subjects/observations; perform a linear regression using one variable to predict the other; comment on the R-Square, ANOVA table as a test of the significance of the model, and the formula itself. Make sure you specify 1) how much of the variance in Y is predicted, 2) whether the formula is significant, and 3) what formula results from the analysis.

IN THE LESSONS THAT YOU PRESENT, THE MODEL YOU FOLLOW SHOULD PARALLEL/MODEL MY PRESENTATIONS OF THOSE TESTS IN THE TEACHING VIDEOS AND THE YOUTUBE VIDEOS YOU REVIEWED for the Assignment.

Lecture Notes: The PowerPoint slides for the lectures will be posted on the course’s Canvas website. Do NOT expect the teaching videos to merely repeat the text, section-by-section! You can’t “get” this material unless you actually DO IT. Therefore, you should expect the videos to be WORKSHOPS, where the most important parts of the textbook material are highlighted and elaborated on within the general context of the text, current practice, and the kind of skill development that will enhance your career development. **You are expected to actively ENGAGE with the video content, having already read and worked through the text and SAGE PUBLISHING’S Student Support Site. If you are vague on any area of the assigned readings, you are expected to have your questions reasonably formulated and bring them to me during “Office Hours”.**

Academic Integrity: The rights of students will be protected to ensure that test scores are related to competence in the subject matter. Therefore, electronic comparison will be used to detect plagiarism and the use of ANY INTELLIGENCE that is not your own. If cheating is detected, it will be prosecuted to the limit allowed by University policies. **YOU ARE RESPONSIBLE FOR KNOWING THE BOUNDARIES OF “PLAGIARISM.”** Generally, it includes submitting any work which does not originate from your own effort, without attributing proper credit.

THIS IS NOT A PASSIVE-LEARNING COURSE WHERE YOU LEARN BY READING AND REFLECTING. IN ADVANCE, BE ADVISED THAT THIS COURSE REQUIRES WORK, WHERE YOU WILL HAVE TO ACTUALLY “DO SOMETHING”.

Frequently Asked Questions:

Are the Teaching Videos in this course pure summaries of the textbook? In a word, “NO!” The textbook contains a fairly comprehensive presentation of the material from a fairly “academic” perspective. While it is a VERY fine text (why else would I use it?), its perspective is somewhat flat. That is, every page seems to be as important as every other. While ALL of the Privitera text is important, some sections are HUGELY important to the HR professional. Therefore, please look at the text as foundational and the Teaching Videos as specific to your professional development.

Since this is an online class, will I have the opportunity to “meet” and engage with my other classmates? Of course! Opportunities are sprinkled through the entire course for some social but mostly course-related interaction with your colleagues.

How much “work” will this course require? This obviously depends on your prior experience with logic, mathematics, and HR decision-making (with LOGIC being much more important than memorizing formulas). The reading(s) will take you somewhere on the order of 40-60 minutes, the videos will take you between 60 to about 120 minutes, the quiz will take 15-25 minutes, and the homework/assignment will take anywhere between 30-90 minutes. You should be prepared to allocate 3-6 hours per week. Most importantly, be sure to NOT fall behind. Falling behind by even ONE Module will severely require super-human discipline and effort to catch up.

How are the Modules formatted? That is, what should I do to complete them and in what order? Each Module includes a PPT file that you should use to follow along with the Teaching Video(s), AFTER first reading the text. As appropriate to your needs, make use of the FREE publisher support materials at SAGE PUBLISHING’S Student Support Site. If you are vague on any area of the assigned readings, you are expected to have your questions reasonably formulated for time during “Office Hours” AND/OR posting them in the Chat Room. Then, do whatever assignments are included and, finally, complete the quiz(zes). **As indicated above, please allocate yourself 3-6 hours to complete this work. (For some students, even more time will be required in the earlier Modules.)** **NOTE: SOME STUDENTS PREFER TO WATCH THE VIDEOS FIRST AND, THEN, READ THE TEXT.**

What is the course lateness policy? This is simple. Work submitted late without an unavoidable, **DOCUMENTED** reason **VALIDATED BY THE OFFICE OF THE DEAN OF STUDENTS** will, completely at the discretion of the Professor, be heavily penalized. Continued tardiness will likely have a devastating impact on your final course grade. Therefore, be seriously engaged and do your work! If you need help, PLEASE visit me during “Office Hours”. I know that employer and family demands sometimes require even the most conscientious student to unavoidably fall behind. However, business trips and office/family functions are NOT valid reasons for not turning exercises in on time. Even “excused” absences are not valid reasons for work to be completed and submitted as scheduled. If there is a concern for a date several weeks out, aim to get the related assignment submitted EARLY.

Can I work with another classmate to complete homework and assignments? Yes, PLEASE DO!!! **HOWEVER... YOUR** work must be independently completed and submitted. That is, you may collaborate with each other but your final product must be completely independent of what your “partner” submits. **Any duplicative SPSS files will result in “0” grades for both parties.**

Do you have any final advice on how to do well in this course? Sure! From my perspective, it is really simple. Follow the track indicated in the modules. Read the text and watch the teaching videos. Do the homework, as assigned. Get help during office hours. I am ALWAYS happy to give you all the help you can stand! AND FINALLY... persevere! Don’t give up!

I believe that this course is THE course that will make the difference between you either being a DECISION-MAKER or directions-follower in your career. While it will surely require significant work for most students, it also has the highest personal ROI for you. In T&D language, mastering the content in this course will significantly raise your HR-career upside.

Good luck in the course. I am committed to helping you establish a logical foundation that will equip you to solve sticky HR-related organizational problems using reliable and valid data.

THINGS YOU NEED TO KNOW ABOUT: RUTGERS UNIVERSITY-RELATED RESOURCES FOR YOU

Student resources – this link directs students to the appropriate resources if they are in need of help in the areas of (a) mental health, (b) academic coaching, and (c) financial assistance: <https://smlr.rutgers.edu/about-smlr/fall-2022-information-smlr-students>.

Scholarships – to ensure that all students are aware of SMLR's scholarship offerings, here is a link to our scholarships: <https://smlr.rutgers.edu/academic-programs/scholarships>.

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 (<https://webapps.rutgers.edu/student-ods/forms/registration>).

PLEASE DO NOT OFFER ANY EXCUSES OR ASK FOR ANY SPECIAL CONSIDERATIONS FOR THE REQUIREMENTS AND EXPECTATIONS SPECIFIED IN THIS SYLLABUS. THEY WILL NOT BE GRANTED. IF YOU ARE NOT PREPARED TO MEET THE INCLUDED EXPECTATIONS FOR THIS COURSE, YOU WOULD BE BETTER SERVED BY DELAYING IT UNTIL A TIME THAT YOU ARE SO ABLE.

Spring, 2026 Class Schedule (Statistics for HRM)

Date	Topic	Primary Module Tasks
Module #1 Jan. 20-25	Introductions, Your Problem, and Our Agenda	<input type="checkbox"/> Study Syllabus (Expect Quiz) <input type="checkbox"/> Appendix A (pp. 457-476) <input type="checkbox"/> Pages xxxv-x
Module #2 Jan. 26-Feb. 1	Introduction to Statistics	<input type="checkbox"/> Chapter 1*
Module #3 Feb. 2-8	Summarizing Data: Frequency; Distributions...;	<input type="checkbox"/> Chapter 2
Module #4 Feb. 9-15	Summarizing Data: Central Tendency Summarizing Data: Variability	<input type="checkbox"/> Chapter 3* <input type="checkbox"/> Chapter 4*
Module #5 Feb. 16-22	Probability, Normal Distributions, and z Scores	<input type="checkbox"/> Chapter 5* PRESENTATION #1
Module #6 Feb. 23-Mar. 1	Characteristics of the Sample Mean	<input type="checkbox"/> Chapter 6
Module #7 Mar. 2-8	Hypothesis testing – significance, effect size and power	<input type="checkbox"/> Chapter 7*
Module #8 Mar. 9-13 (extension to the 15 th)	Survey Design and Predictive Models*	MID-TERM EXAMINATION (Chapters 1-7, Teaching and Supplementary Videos, SPSS)
March 14-22	SPRING BREAK!!!	
Module #9 Mar. 23-29	One-Sample t-Test	<input type="checkbox"/> Chapter 8
Module #10 Mar. 30- Apr. 5	Testing Means: Two Independent Samples t-Test	<input type="checkbox"/> Chapter 9* Student Engagement Survey
Workshop #11 Apr. 6-12	One-Way Analysis of Variance	<input type="checkbox"/> Chapter 11*
Workshop #12 Apr. 13-19	Correlation	<input type="checkbox"/> Chapter 13*
Workshop #13 Apr. 20-26	Regression	<input type="checkbox"/> Chapter 13*
Workshop #14 Apr. 27-May 4	Study Helps and Course Review for the Final Exam	<input type="checkbox"/> PRESENTATION #2

FINAL Exam: To be completed within a 3-hour window between May 11th (8:00 AM) and 13th (Midnight).

Legend: * **(Bold)** = Critical Content in the Course for BOTH understanding and grade assessment