



HR Decision-Making: Data-Based Decisions (Spring 2023) 38:533:542:01

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	Data-Based Decisions 38:533:542	JLB 103	Mondays	7:20-10:00 PM
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 Instructor:
 Ralph A. Rodriguez, Ph.D., SPHR
 Office:
 215D, Contact via our Canvas portal

 Class Location/Time:
 JLB 103 Wednesdays 7:20 PM- 10:00 PM
 Office Hours:
 Office Hours:

• Mondays in JLB-215D from 1:00-2:00 PM; Wednesdays in the Online WebEx Room (see Canvas link) from 8:00-9:00 PM; also, by Appointment (make requests via Canvas portal E-Mail)

Email: via Canvas portal

<u>Telephone</u>: (973) 500-8789 (Google line; leave message)

TA: Mitali Shah: Office Hours by Appointment (email via Canvas portal)

RESOURCES REQUIRED FOR STUDENT PREPARATION:

- Required Text: Privitera, Gregory J. (2019). *Essential statistics for the behavioral sciences* (2nd Edition). Thousand Oaks, CA: SAGE Publications. ISBN-13: 978-1506386300 (Paperback). <u>MAKE SURE YOU GET THE 2nd EDITION.</u>
 - **Kindle** eBook available for semester rental for @\$50 on <u>Amazon (<-click here, make sure you get rental through May</u> <u>10th</u>). Note that the Kindle version is also available for PURCHASE for about \$70 (same site).
- "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/priviteraess2e (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.
- <u>REQUIRED</u> SPSS Software:
 - This course makes use of SPSS for calculations for homework and exams. FREE access is available and arranged through IT Support Services at SMLR. To arrange access, you must FIRST contact the <u>SMLR</u> IT Support staff at 848.445.5650 (Monday-Thursday 9am-9pm and Friday 9am-5pm).

To guarantee access to the program from your own local machine, I HIGHLY RECOMMEND that students purchase SPSS licenses for their own computers. If you choose to, you may purchase a student license for SPSS which is good for a limited period of time for a reasonable fee. NOTE: A limited term STUDENT license that will allow you to download the full package of the Grad Pack Base is available at Student Discounts.com for approximately \$35 for a 6month license or ~\$55 for a 12-month version. ANY version from 24.0 to 28.0 is fine. ← STRONGLY **RECOMMENDED! NOTE: The license is good for TWO computers.**



- **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 10, 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.
- **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.

COURSE OVERVIEW:

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 0
- 0
- 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 testing significant differences.
- 4. Be able to calculate and use statistics measuring relationships and causality.
- 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.

ASSIGNMENT EXPECTATIONS

The format of this course will be lecture and discussion, with a prominent "workshop" element. It will be highly interactive. This means that your assigned reading MUST be done BEFORE class. Much of the communication will take place electronically on the course Sakai site. You are expected to have completed your reading assignments **prior** to class, and should come prepared to discuss the material. Students will be responsible for all the assigned material. YOU are responsible for securing all notes from missed classes. University, College and Departmental policies will be observed in this course.

Assignments are due as indicated. I will try to adhere to the enclosed time-line. You must <u>type</u> all written work (ONLY MS Word, please!). Check for grammar & spelling errors. Errors will be penalized. Always keep a backup copy. **No INDIVIDUAL extra credit** assignments will be given.

Attendance: Attendance will be taken at the BEGINNING of every class and is **required.** Lateness and absences will seriously impact your ability to stay on track and will, therefore, be recorded and impact your grade. Absences for illness, religious holidays and other events recognized by Rutgers University will be excused, provided that the student provides appropriate documentation. If you know you are going to miss a class because of a religious holiday, I would appreciate an email prior to the holiday. Note that even "excused" absences will impact your ability to stay current because of the critical nature of in-class exercises on both your understanding and your grade. Even excused absences are not valid reasons for work not to be done. If you are absent, it is YOUR responsibility to secure notes from a classmate or "catch up" during office hours.

Exercises & Quizzes (20%): Almost EVERY class will include a graded quiz or exercise. When they are quizzes, they will be short (10-minute), objective quizzes, based on that day's reading(s). Any in-class exercises will also be based on the day's readings. Occasionally, "homework" (out-of-class exercises) will also be assigned. All of these Quizzes and Exercises are worth the same number of points, with the total average composing 15% of your overall grade. **No make-ups for either Quizzes or Exercises will be permitted** but the TWO lowest (or MISSING) grades will be dropped.

Examinations (50%): There will be two examinations as noted on the course schedule. They will include material from the text, classroom discussions, the readings, and any Canvas Discussion Board assignments. Each examination will be worth 25% of the course grade. The questions will include both fact-based "objective" questions and application-based short answer ("problems") and essay questions.

Make-up policy: An examination grade of "0" will be assigned to any student who is absent without a legitimate excuse on the date of a regularly scheduled test. Legitimate excuses include illness (verified by a note from a doctor), inclement weather (only when the Rutgers Information Service (848-932- INFO) indicates that Rutgers is closed), scheduled religious holidays, business trips or events where attendance is required by an employer, when the instructor emails the class announcing class is suspended, or other dire circumstances such as a death in the family. Only absences supported by VALID, conclusive evidence will be forgiven.

Students with learning disabilities or other reasons for taking the examination outside the regular examination time 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.

A makeup exam will be held at a time convenient to the instructor when all students needing to take the makeup can reasonably be expected to be present. Any examination cancelled by the instructor will be held at the next regularly scheduled class period.

2-Page Reading Reviews (2x5% each): Eight to ten "Readings" are assigned in this course. All students MUST read all the readings and come to class ready to actively contribute to a discussion led by another class member. Each class member will sign up to facilitate two of these discussions in class. Along with facilitating the discussions, students will prepare and submit a two-page (double-spaced) summary of the learning content that they will use to guide their presentation. At the conclusion of your discussion and after you summarize the learnings from the reading, you will administer a 5 question quiz to the class on the reading. (Your analysis and presentation/facilitation will be graded on the basis of material that we have covered up until and including that date.) A sign-up sheet will be made available to students early in the course where you will officially commit to YOUR readings. These written part of these assignments must be submitted in the Canvas "Assignment" bin BEFORE that week's class begins. NO LATE SUBMISSIONS will be accepted... nor will you be permitted to replace the "0" with another selection.

GROUP PROJECT (20%): Students will be assigned to project teams. These teams will exist for the entire semester and will have two primary responsibilities, a research paper and a presentation based on data obtainable through the GSS website. More information on the content will be forthcoming approximately 1/3 into the semester.

RESEARCH PAPER AND PRESENTATION: Each team will be responsible for preparing a paper and presentation on a BUSINESS/HRM-RELATED research topic to be decided and submitted for approval. Your project group will review the research literature on the measurement of some HR function and/or the state of the workforce. What does the literature claim? What are the variables that the research claims are important? How persuaded are you by the research? Why? What independent research have you, as a group, conducted using GSS data that would be of interest to organizations in general and HR specifically? What are you able to conclude? What are the implications for the practice of HRM?

Your submitted report will be an Executive Summary of your process and findings. In terms of paper length, please consider that Executives have very little time for meaningless adjectives and adverbs. Write enough to communicate the important details and support them with relevant appendices. No more. It is reasonable to suppose that the total report will be between 8-20 pages. This paper submission is due IN-CLASS (hard copy) on the date of our final class (May 1).

On that date, each group will deliver a formal presentation of their project to the full class. Your classroom presentation of the research project will be limited to 20 minutes. In that time, you will be expected to EFFICIENTLY present your topic, a summary literature review, the measurement model you developed, and considerations of the theoretical and/or practical importance/ implications/limitations of your findings. Groups are free to determine the most effective format for their presentations, remembering that it is difficult to communicate theoretical models and statistics without graphical representations.

GUIDELINES: A "good" quality paper is expected to have at least 10 references to valid, peer-reviewed journal articles that support the development of their measurement model.

NOTE #2: In lieu of the above assignment, groups that perform REAL research <u>for REAL organizations</u> will be eligible for extra credit, based on the quality of the research and recommendations. Ideally, you can use this opportunity to network your way into a profit-making or non-profit organization by providing research assistance that helps them solve a REAL current business problem. These may include issues of employee satisfaction, engagement, department or organizational effectiveness, etc. Your project will require your conclusions to be based upon a survey instrument that YOU have created. You will have to volunteer your services to organizations, campus organizations, small or large businesses, support (landscaping, maintenance, etc.) or educational (Management, Economics, etc.) departments within Rutgers University, etc. Most of these organizations will want to be assured that your project is being done under the supervision of a faculty member. You may give them my name and contact information. You might be able to get some other research ideas by consulting with the friendly people at "Community Service at Rutgers" (from their website: "Community Service at Rutgers is part of the Office of Student Involvement & Community Service within the department of Student Life. In our office, you will find advisors dedicated to community service programs, the Student Volunteer Council headquarters, and many resources for your volunteer needs."). They are the university's link to community (mostly non-profit) opportunities.

Class Contribution (the top 10% of students will earn up to 3 additional points applied to your <u>course</u> average!): This is a course citizenship grade and will reward you for <u>preparing</u> for, <u>participating</u> in, and <u>enriching</u> the learning experience. It will be based on both frequency and quality of class participation, with quality weighted more heavily than frequency. Valued behaviors include: initiating discussions, voicing original ideas, challenging others, defending your own views, raising important and <u>relevant</u> points, attempting to answer unpopular questions, and generally demonstrating a command of assigned reading materials. Behaviors to avoid

include: reiterating obvious points, making irrelevant remarks, distracting the class, and failing to participate when asked.

Grading: Grades will consist of the following components and weighted as indicated:

	PERCENTAGE	Cou	rse Grade	CUM. %
Quizzes, HW, & Exercises	20%		Α	90% +
Exam #1	25%		B +	85-89.9%
Exam #2	25%		В	80-84.9%
2-Page Reading Reviews (and facilitated	10%		C+	75-79.9%
discussions)				
Group Project	20%		С	70-74.9%
			D	60-69.9%
TOTAL GRADE	100%		F	<60%

Academic Integrity: The rights of students will be protected to ensure that test scores are related to competence in the subject matter. Therefore, all examinations will be carefully proctored. If cheating is detected, it will be prosecuted to the limit allowed by University policies. An academic integrity contract will be distributed in class. Students must submit a signed copy of the contract before the second class they attend. ASSIGNMENTS AND EXAMS TURNED IN BEFORE THE ACADEMIC INTEGRITY CONTRACT IS HANDED IN WILL RECEIVE A GRADE OF "0."

In addition, electronic comparison will be used to detect plagiarism, which will result in AUTOMATIC FAILURE and reported to the Dean. 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.

Lecture Notes: The PowerPoint slides for the lectures will be posted on the course's Canvas website. Do NOT expect class to merely repeat the text, section-by-section! You can't "get" this material unless you actually DO IT. You should expect class to be a WORKSHOP, where the most important parts of the textbook material are highlighted and elaborated 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 arrive to class, 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 for classroom discussion.

In current teaching/training parlance, this is a "flipped" course where you are expected to do the preparation that you can best do independently outside-of-class in order that class time can be used more efficiently to work on problems with the assistance of the professor and TA. NEARLY EVERY CLASS WILL INCLUDE A QUIZ TO MONITOR YOUR PREPARATION (readings, assignments, etc.) and engagement.

MISCELLANEOUS COURSE POLICIES: The following class rules will be strictly enforced. Do not ask for exceptions.

Classroom Conduct: Otherwise polite students sometimes behave in an uncivil manner when taking courses.

The following are NOT permitted in class:

(a) cell phones, pagers, and text messaging devices. These should be turned off and put away OUT OF SIGHT.

(b) laptop computers except when used for taking notes or working in SPSS. Web surfing or reading emails or other non-courserelated computer or other electronic device use will result in the student being made to leave the class; repeated offenses will result in suspension from the class.

(c) napping

- (d) chit-chatting with your seat neighbors
- (e) reading the newspaper (includes working puzzles contained therein)
- (f) studying or doing homework for other courses
- (g) arriving at class late on a consistent basis
- (h) leaving class early on a consistent basis
- (i) wandering in and out of class

When you are doing any of these things it is hard to argue you are participating in the class, and points will be deducted from your Participation score.

TIMELINESS AND FORMATTING OF ASSIGNMENTS: Assignments are <u>due by the beginning of class on their due</u> <u>dates</u>.

This syllabus in subject to change based on my on-going assessment of student needs and progress.

NOTE: You do NOT earn points for mere attendance, activity, and/or good behavior in this course. HOWEVER, failure to meet expectations in these three areas will be penalized. This is because while participation requires your presence, mere presence is not necessarily accompanied by worthwhile participation. You are permitted **TWO** absences before a ONE-LETTER GRADE PER ABSENCE PENALTY WILL BE IMPOSED. Any unexcused lateness of more than 15 minutes will count as ¹/₂ absence.

I believe that "Data-Based Decisions" 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 surely has the highest personal ROI for you. In T&D language, mastering the content in this course will significantly raise your HRcareer upside.

Therefore, please do not offer any excuses or ask for any special dispensations regarding 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 2023 Class Schedule (Mondays)

Date	Торіс	Reading Assignment	
Workshop #1	Introduction to the Course: Your Problem: The Case for	Appendix A (pages 493-512);	
Monday, Jan. 23	Quantitative Decision-Making	Pages xxxv-xli	
Workshop #2	Introduction to Statistics	Chapter 1*;	
Monday, Jan. 30	Summarizing Data: Frequency; Distributions;	Chapter 2	
Workshop #3	Summarizing Data: Central Tendency;	Chapter 3*;	
Monday, Feb. 6	Summarizing Data: Variability	Chapter 4*	
Workshop #4	Probability, Normal Distributions, and z Scores	Chapter 5*;	
Monday, Feb.13		Research Reading #1(example	
		facilitated by Prof. Rodriguez)	
Workshop #5	Characteristics of the Sample Mean	Chapter 6;	
Monday, Feb. 20		Research Reading #3;	
-		Research Reading #5	
Workshop #6	Hypothesis testing – significance, effect size and power	Chapter 7*	
Monday, Feb. 27	EXAM REVIEW	-	
Workshop #7	Part #1: MIDTERM 1 (Chapters 1-7)		
Monday, March 6	Part #2: Survey Design and Predictive Models*		
Workshop #8	One sample and two independent sample t-tests with confidence	Chapter 8;	
Monday, March 20	intervals	Chapter 9*	
Workshop #9	Project Team assignment and organization.	Research Reading #7	
Monday, March 27		Research Reading #9	
Workshop #10	Related-samples t-test;	Chapter 10;	
Monday, Apr. 3	Analysis of Variance;	Chapter 11*;	
Workshop #11	Two-Way ANOVA	Chapter 12;	
Monday, Apr. 10		Research Reading #11	
		Research Reading #17	
Workshop #12	Correlation	Chapter 13*;	
Monday, Apr. 17		Research Reading #15	
Workshop #13	Regression	Chapter 13*;	
Monday, Apr. 24		Research Reading #19	
Workshop #14	PROJECT PRESENTATIONS;		
Monday, May 1	May 1 Review for the Final Exam		

FINAL Exam: TBD, upon University Announcement

Legend: **Bold*** = Critical Content