RUTGERS
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HR Data Based Decision Making: HR DEC MAK: DBD 38:533:542:02
School of Management and Labor Relations
Spring 2022

Professor:	Professor Nichelle Carpenter, Ph.D.
Email:	nichelle.carpenter@rutgers.edu
Course Meeting:	**Time:** Mondays 4:30pm – 7:10pm ET

Location: In-person and Zoom*
  In-Person Classroom: Janice Levin Building Room #103
  Zoom Classes: see Zoom tab in Canvas to join Zoom classes

*Given ongoing pandemic, location of classes is subject to change.

Student Hours: **I will hold office hours each week in my personal ZOOM room**:

https://rutgers.zoom.us/my/nc742?pwd=dEtITkFSOFo5NGhKM2F6RlRqc2FpZz09

- **Days and Times**: Tuesday from 2:30-3:30pm, Thursday from 3:00-4:00pm ET.
- **How to reserve a time?** Click my Calendly link https://calendly.com/prof-carpenter/15min to reserve a time.

*If the available times described above do not work for you, no worries. Send me an email to set up an alternative time. There also may be weeks where I have a meeting that conflicts with these times – I will update you on the new times.

Course Website: Canvas.rutgers.edu

I will provide all course-related information through our course canvas website. Please get into the habit of checking canvas on a consistent basis.

Required Textbook: Salkind, N. J. (2017). *Statistics for People Who (Think They) Hate Statistics.* Sage Publications, Inc. Print ISBN: 9781483374086, E-book ISBN: 9781483374093

Required Materials **You must use Microsoft Office (at least Word and Excel) for projects and data analysis**. Students can obtain free access through the University Software Portal: https://software.rutgers.edu/info/login/

Once you have Microsoft Excel, enable the Data Analysis ToolPak. It's easy to do, and here is a source that can help: https://support.microsoft.com/en-us/office/load-the-analysis-toolpak-in-excel-6a63e598-cd6d-42e3-9317-6b40ba1a66b4

Course Description and Objectives

In this course, students will learn important statistical concepts and analyses that are critical to Human Resource Managers. Several methods and analyses are necessary for HR professionals to evaluate important HRM questions and issues; students in this course will learn statistics that are often used to interpret and evaluate organizational situations and phenomena. At the end of this course, students will be able to (a) develop and test research questions relevant for the organizational context; (b) critically evaluate quantitative information and illustrations you encounter; (c) communicate your understanding of statistics to others; and (d) perform common statistical analyses in Microsoft Excel.

Specifically, at the end of this course, students are expected to do the following:
1. Navigate simple and complex datasets
2. Propose relevant research questions and hypotheses
3. Identify appropriate data and statistical tests for many HR problems and decisions
4. Analyze data with Excel
5. Interpret the meaning of statistical tests
6. Create professional illustrations (e.g., tables, figures) of statistical results
7. Communicate (in writing) the findings of your analyses to others
8. Critically evaluate and interpret quantitative information

Spring 2022 Course Structure

Each week consists of <u>synchronous class meetings</u> – these class meetings will occur in-person and remotely via Zoom. This means that we will meet live from 4:30pm-7:10pm. Prior to each meeting, I expect you to complete the assigned readings, viewings, and/or assignments. I will provide brief lectures throughout our class time. However, we will use the bulk of time to complete activities that put the readings into practice and troubleshoot/discuss issues or observations that emerge.

In-Person Class Protocols: During in-person classes, my expectations are that we will:
- **Practice social distancing by sitting at least 6 feet away from any person in the room**
- **Wear at least one face mask – covering mouth AND nose – during the entire time in the classroom.**
- **Minimize eating and drinking in the classroom**
- **Practice patience with each other** – we may have to repeat ourselves and/or restate questions/comments since it may [at times] be difficult to understand each other in person.
- **Demonstrate flexibility** – we may have to adjust expectations and plans as the semester progresses.

Please note that all remote sessions and office hours will be on Zoom. Please make sure that you have signed up for a Rutgers Zoom account during Week 1. (https://it.rutgers.edu/zoom/knowledgebase/how-to-create-your-rutgers-zoom- account/) If you need any help connecting to Zoom, please contact the RU Help Desk (833-648-4357).

Basis of Evaluation
  1. Individual Projects (average of 3 projects) = 250 points   **50%**
  2. Quizzes (10 quizzes [includes one bonus]) = 150 points   **30%**
  3. Attendance and Participation = 100 points   **20%**
  Total: 500 points   **100%**

Grades will be assigned according to the traditional cut-offs used at Rutgers:
      90-100% = A
      85-89.9% = B+
      80-84.9% = B
      75-79.9% = C+
      70-74.9% = C
        < 70% = F

Individual Projects (3) – 250 points total (50%)

Throughout the semester, you will complete three individual projects. Each project will require you to conduct analyses, answer questions, create tables/figures, and provide a written deliverable. I will provide you with a real-world dataset that will be used to complete each of the projects. Although I will provide coaching as you complete your project, you should plan to spend time outside of class working on each project. Each project is worth 250 points – Final project grade is the average of the three projects (**Total project grade is 250 points**)

Scope of Projects:

- Project #1: Descriptive Statistics. You will analyze descriptive statistics (e.g., mean, standard deviation, frequencies) for variables, create appropriate tables and figures (e.g., histograms), and provide a 1-page (single-spaced) write-up (MAXIMUM) of your findings and interpretations.

- Project #2: Inferential Statistics. You will use the data to evaluate reliability information (e.g., alpha), and conduct inferential tests (e.g., t-test, ANOVA). You will also create appropriate tables and figures to illustrate the findings. Finally, you'll provide a 1-page (single-spaced) write-up (MAXIMUM) of your findings and interpretations.

- Project #3: Correlation and Regression. You will use the data to conduct correlation and regression analyses to answer questions about validity, reliability, and other research questions. You will also create appropriate tables and figures to illustrate the findings. Finally, you will provide a 1-page (single-spaced) write-up (MAXIMUM) of your findings and interpretations

Importantly, these are individual projects. While I expect you to ask your peers questions about the projects and even work together to figure out how to approach the assignments, THE WORK YOU SUBMIT MUST BE YOUR OWN. This includes analyses, writing, and tables/figures.

You must submit your project through Canvas. All submitted assignments will be evaluated via Turnitin. Please see policies regarding integrity breaches for more information about consequences of cheating and plagiarism.

APA style:
You are required to use APA style for your written deliverables and presentations This is most relevant for formatting, in-text citations, reference lists, tables, and figures. It is imperative that you familiarize yourself with the requirements throughout the semester (i.e., don't wait until the first assignment is due to figure this out). **See resources on Canvas so that you can ensure that you prepare your paper in the appropriate format.**

Briefly, all projects (including executive summary and illustrations) must be:
- **Typed**
- **Contain 1-inch margins all around the document**
- **Use 12pt. Times New Roman font.**

Peer Review:
During Week 2, students will be assigned a partner for the Project Peer-Review Assignment. You will have the same partner for the entire semester. The week before each project is due, each student will submit their project to their partner for review. **Students must opt-in to participate in the peer-review (to ensure everyone has a participating peer-review partner).**

How to complete peer-review? **In addition to preparing a draft of their project (executive summary and appendix), students will prepare a brief peer-review memo (on the first page) that describes** (a) current progress of the project (e.g., "this is what I consider a final draft", "this is a ROUGH draft"), (b) areas of your project that you're currently unhappy with, and (c) specific questions you have for your partner (e.g., "did the third paragraph of my summary make sense to you?", "I think my writing is really wordy – does it seem that way to you?". Students will also be provided a rubric to provide additional feedback. Each student will read and review the project, provide feedback based on the rubric, readability, and clarity.

Please see the course schedule (last 2 pages) for the specific deadlines/timelines for each peer review.

The peer-review will not be expressly graded but it will be factored into participation grades. The purpose of the peer-review is to provide important feedback prior to submitting the final draft project for a grade – as a result, I encourage you to submit a high-quality draft to ensure you can receive the most useful feedback as possible.

Quizzes – 150 points (30%)
You will complete a quiz most weeks in this course. There will be nine quizzes administered on our canvas website. I also include a "free" quiz in the final quiz grade calculation (e.g., all students receive 100% on Quiz #10). Each week's quiz must be completed prior to the start of class (i.e., 4:30pm ET). These quizzes help you keep up with the readings and convey the key topics of each topic. These quizzes are to be completed individually, and you can use your notes or textbook to help you answer the questions.

Attendance and Participation – 100 points (20%)
I will take attendance in each class meeting (whether in-person or online). I also expect that you will review all class materials, lectures, and required media resources each week prior to attending class. This is important to ensure that we can make our in-class time active. To participate, actively participate and engage with the course materials – this means ask questions and respond to other students' questions. Be present and attentive during class sessions. Be proactive and persistent – you may need to watch or read materials a couple of times. Attend office hours! This also means working on projects early, not at the last minute.

Nine Class Guidelines for Professionalism
1. Actively participate and engage [zoom sessions, coursework, classroom participation]
2. Treat each other and professors with respect
3. Respect time (e.g., arrive on time, remain present until the end)
4. Focus on present people, responsibilities, and activities (be present physically and mentally)
5. Be Persistent – mastery of analytics requires deliberate practice, directed feedback, and honest self-reflection.
6. Demonstrate proactivity in problem solving, asking questions, and project scoping
7. Take ownership of projects and assignments
8. Communicate with others in a timely and appropriate fashion
9. Be Agile – be comfortable with uncertainty, be able to rapidly adjust to change, and be resilient.

Late Submissions
I expect students to complete all assignments and quizzes on time. However, I will grant one FREEBIE - no questions asked (things happen). This means that you can submit ONE graded assignment up to 3 days late, with no penalty (i.e., you can use this on a project or quiz). **If you have an excused reason for submitting late, I encourage you to contact with me in advance of the due date to discuss a possible accommodation and possible adjustment to the late penalty.**

A Note about Practice Problems
There are practice problems at the end of each book chapter – I suggest that you complete them as they may be helpful for quizzes.

Requests for Reconsidering a Grade
If you have questions about the evaluation or grade that your work earned, you may ask in writing to have it reviewed again and the grade reconsidered. You have seven days from the time you receive the grade to make the request. No reconsideration of grades or scoring will occur after seven days has elapsed. To do this, prepare a written statement (one or two paragraphs) explaining what you believe to be erroneous about the grade. **Please recognize that a new grade could be lower or higher than the original grade**.

Other Important, Miscellaneous Things

<u>Students with disabilities</u>
Students requesting accommodations for disabilities should contact the Office of Disability Services to determine his/her Coordinator. The Coordinator will then provide documentation to the student. Upon review and approval, the student must then provide this documentation to the instructor. Please refer to the Office of Disability Services for Students for more detail regarding this policy: https://ods.rutgers.edu/ .

<u>*APA style – this is necessary for all written work in this course!***</u>**
You are required to use APA style for your written deliverables and presentations (where applicable). This is most relevant for formatting, in-text citations, reference lists, tables, and figures. It is imperative that you familiarize yourself with the requirements throughout the semester (i.e., don't wait until the first assignment is due to figure this out).

Briefly, all projects must be:
- **Typed**
- **Contain 1-inch margins all around the document**
- **Use 12pt. Times New Roman font**

Here are some websites that you should consult for further assistance (more materials are located on our Canvas website):
- https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html
- https://owl.purdue.edu/owl/research_and_citation/conducting_research/evaluating_sources_of_information/where_to_begin.html
- https://apastyle.apa.org/

<u>Academic Integrity</u>
Rutgers University takes academic dishonesty very seriously. By enrolling in this course, you assume responsibility for familiarizing yourself with the Academic Integrity Policy and the possible penalties (including suspension and expulsion) for violating the policy. As per the policy, all suspected violations will be reported to the Office of Student Conduct.

Academic dishonesty includes (but is not limited to):
- cheating
- plagiarism
- aiding others in committing a violation or allowing others to use your work
- failure to cite sources correctly
- fabrication
- using another person's ideas or words without attribution
- re-using a previous assignment
- unauthorized collaboration
- sabotaging another student's work

If in doubt, please consult the instructor. Please review the Academic Integrity Policy at: https://nbacademicintegrity.rutgers.edu/.

Media Policy
The recording and transmission of classroom lectures and discussions by students is prohibited without written permission from the class instructor and all students in the class as well as guest speakers have been informed that audio/video recording may occur. Recording of lectures or class presentations is solely authorized for the purposes of individual or group study with other students enrolled in the same class. Permission to allow the recording is not a transfer of any copyrights in the recording.

The recording may not be reproduced or uploaded to publicly accessible web environments. You cannot share any part of any recording without express written permission by all parties potentially affected by the recording.

Recordings, course materials, and lecture notes may not be exchanged or distributed for commercial purposes, for compensation, or for any other purpose other than study by students enrolled in the class. Public distribution of such materials may constitute copyright infringement in violation of federal or state law, or University policy. Violation of this policy may subject a student to disciplinary action under the University's Standards of Conduct.

*Exception:
It is not a violation of this policy for a student determined by the Learning Needs and Evaluation Center ("LNEC") to be entitled to educational accommodations, to exercise any rights protected under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, including needed recording or adaptations of classroom lectures or materials for personal research and study. Such recordings of lectures or class presentations is solely authorized for the purposes of individual or group study with other students enrolled in the same class. Permission to allow the recording is not a transfer of any copyrights in the recording. The restrictions on third party web and commercial distribution apply in such cases.

Destruction of Approved Recordings:
Students must destroy recordings at the end of the semester in which they are enrolled in the class unless they receive the instructor's written permission to retain them or are entitled to retain them as an LNEC-authorized accommodation.

Spring 2022 Course Schedule

Week	Date	Location*	Class Topic	What is due before class?
1	1/24	Zoom	**Welcome and Course Introduction** What's in the syllabus? What are important terms to know in this course?	Read: Ch. 1* Make sure Data Analysis Tool for Excel is installed
2	1/31	Zoom	**Central Tendency and Variability** How to describe data using statistics Excel Demo: Run and illustrate descriptive stats Note: Project #1 and dataset posted and discussed	Read: Ch. 1-3 **Quiz #1**: Ch. 2 & 3 Opt-in for Peer-Review
3	2/7	In-person*	**Illustrating and Writing about Data** How to describe data using illustrations and words Excel Demo: Practice examples with dataset Note: Peer-review partner assigned	Read: Ch. 4 **Quiz #2:** Ch. 4
4	2/14	Zoom	<mark>**Project #1 Coaching**</mark> Troubleshooting Project #1: bring your questions and concerns. This class is optional and will be recorded. Note: If you are participating in peer-review, you should submit your draft and memo to your partner by 7:30pm Mon 2/14 and complete/return your review no later than 4:30pm on Thurs 2/17. See canvas for rubric and instructions	Read: none Peer review draft due to partner 7:30pm on 2/14 and returned 4:30pm on 2/17
5	2/21	In-person	**Correlation** How to describe and analyze data using correlations Excel Demo: Practice creating/interpreting correlation matrices and scatterplots	**Final Project #1 due by 4:30pm 2/21** Read: Ch. 5 **Quiz #3**: Ch. 5

6	2/28	In-person	**Reliability and Validity** What is the difference between reliability and validity? How to provide evidence of reliability and validity Excel Demo: Practice examples with dataset Note: We will review Project #1 grading and feedback	Read: Ch. 6 **Quiz #4:** Ch. 6
7	3/7	In-person	**Hypothesis Testing** What are inferential statistics? What is the null versus research hypothesis? Excel Demo: There's not much to demo here, but bear with me ☺	Read: Ch. 7 **Quiz #5:** Ch. 7
8	3/14	--	**SPRING BREAK: No class this week** **[e.g., please do at least one thing to rest and recharge ☺]**	
9	3/21	Zoom	**Z-scores (probability, normal curve, z-scores); Type I/II errors** How probability relates to hypothesis testing Relevance of standard normal curve to probability and z-scores Excel Demo: standardize dataset; create/interpret confidence intervals Note: We will discuss Project #2 instructions	Read: Ch. 8 and Ch. 9 **Quiz #6:** Ch. 8 and 9
10	3/28	In-person	**T-test [both independent & dependent samples]** What are similarities/differences in the types of t-tests? What research questions are answered with t-tests? Excel Demo: Conduct/interpret t-tests	Read: Ch. 11 and 12 **Quiz #7**: Ch. 11 and 12
11	4/4	In-person	**ANOVA** What is the difference between ANOVA and t-tests? What research questions are answered with ANOVA? Excel Demo: Conduct/interpret ANOVA	Read: Ch. 13 **Quiz #8:** Ch. 13

12	4/11	Zoom	**Project #2 Coaching** (highlighted) Troubleshooting Project #2: bring your questions and concerns. This class is optional and will be recorded. Note: If you are participating in peer-review, you should submit your draft and memo to your partner by 7:30pm Mon 4/11 and complete/return your review no later than 4:30pm on Thurs 4/14. See canvas for rubric and instructions.	Read: none Peer review draft due to partner 7:30pm on 4/11 and returned by 4:30pm on 4/14
13	4/18	Zoom	**Regression [and revisit Correlation]** What is the difference between correlation and regression? What research questions are answered with simple regression? Excel Demo: Conduct/interpret/write up simple regression Note: We will discuss Project #3 instructions	**Final Project #2 due by 4:30pm on 4/18** Read: Ch. 15 and 16 (you may also review Ch. 5) **Quiz #9:** Ch. 15 and 16
14	4/25	In-Person	**Multiple Regression [continued]** What is the difference between simple and multiple regression? How to interpret slopes and intercepts of model Excel Demo: Conduct/interpret/write up multiple regression Note: We will review Project #2 grading and feedback	Read: Ch. 15 and 16 **No Quiz** (this week is freebie)
15	5/2	Zoom	**Project #3 Coaching** (highlighted) Troubleshooting Project #3: bring your questions and concerns. This class is optional and will be recorded. Note: If you are participating in peer-review, you should submit your draft and memo to your partner by 7:30pm Mon 5/2 and complete/return your review no later than 4:30pm on Thurs 5/5. See canvas for rubric and instructions.	Read: none Peer review draft due to partner 7:30pm on 5/2 and returned by 4:30pm on 5/5
	5/9		Exam Week – **Project 3 due by 4:30pm on 5/9** There is no class meeting this week – however, I will offer some extra office hours as you work to complete the Final Project #3.	**Project 3 due by 4:30pm on 5/9**

*Dates currently scheduled as "in-person" are subject to change. I will communicate any changes to schedule and location as quickly and as far in advance as possible. Please check email and Canvas page in advance of all classes.