

**HR Data Based Decision Making: HR DEC MAK: DBD 38:533:542:02**  
**School of Management and Labor Relations**  
**Spring 2021**

**Professor:** Professor Nichelle Carpenter, Ph.D.  
**Email:** nichelle.carpenter@rutgers.edu  
**Course** Asynchronous course  
**Meeting:**  
**Student Hours:** **I will hold office hours each week in my personal ZOOM room:**

<https://rutgers.zoom.us/my/nc742?pwd=dEtITkFSOFo5NGhKM2F6RIRqc2FpZz09>

- **Days and Times:** Thursdays and Fridays from 2-4pm 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 (everything in this course will happen on Canvas, with the exception of office hours)  
**Required Textbook:** Salkind, N. J. (2017). *Statistics for People Who (Think They) Hate Statistics*. Sage Publications, Inc. Print ISBN: 9781483374086, E-book ISBN: 9781483374093

### **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

### Asynchronous Online Course Structure

**Our entire course is asynchronous. There are no scheduled class sessions where we will meet together. I will provide all readings, presentations, and other materials at the beginning of each week, and weekly requirements must be completed by the end of each week.**

**Specifically, each week's materials will be available on Mondays and all assignments for that week must be completed by 11:59 pm on the following Sunday. I will provide everything on our Canvas website.**

**Office hours will be held over 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	<b>50%</b>
2. Quizzes (10 quizzes (includes one bonus) = 150 points	<b>30%</b>
3. "Attendance" and Participation (discussion questions, polls, completion of modules, peer-review) = 100 points	<b>20%</b>
<b>Total: 500 points</b>	<b>100%</b>

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.

**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.**

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.

**Peer Review.** During Week 2, students will be assigned a partner for the Project Peer-Review Assignment. The week before each project is due, each student will submit their project to their partner for review.

**\*\*\*IMPORTANT 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. I also include a “free” quiz in the final quiz grade calculation (e.g., all students receive 100% on Quiz #10). You are responsible for completing the assigned reading and quizzes before the end of each week. **In addition, lectures can only be viewed after the reading quiz is completed.** These quizzes help you keep up with the readings and convey the key topics of each topic. These quizzes are to be completed individually, but you can use your notes or textbook to help you answer the questions.

### **“Attendance” and Participation – 100 points (20%)**

This class is asynchronous, so I will not explicitly take attendance. However, I expect that you will review all class materials, lectures, and required media resources each week. To participate, actively participate and engage with the course materials – this means, ask questions and respond to other students’ questions. Be present and attentive when you are watching course materials. Be proactive and persistent – you may need to watch lectures a couple of times. Attend office hours! This also means working on projects early, not at the last minute.

**Discussion questions:** Each week, I will post a discussion question (“DQ” in course schedule) – these are ice breaker questions that will help us get to know each other throughout the semester. Please respond to the questions and comment on other student’s responses, too.

### **Nine Class Rules for Professionalism (admittedly, some of these do not apply to asynchronous courses):**

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 discussion questions/responses and submit projects on time. In general, late projects and quizzes are subject to a 5% reduction in grade after each day late (up to 5 days). I will grant one FREEBIE, no questions asked (things happen). **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**

### **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.

**Academic Integrity**

The University's policy on cheating and use of copyrighted materials is enforced in this class. Students are expected to pursue knowledge with integrity. Please refer to the Academic Integrity Policy for more detail regarding these policies: <http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers> All students registered for this course are asked to sign an Academic Integrity Contract (refer to the last two pages of this syllabus). Students must return a signed copy to me. This contract includes detailed explanations of behavior that constitutes plagiarism and cheating. Examples of a breach of this contract with regard to this specific course include, but are not limited to: sharing your answers or copying another student's answers on examinations; sending a fellow student who did not attend class the answers to a poll to falsely indicate their presence; copying material that is not your own without providing proper documentation. In the event that this contract is breached, the punishment can range from receiving a failing grade on the assignment, to being placed on disciplinary probation or permanent expulsion from Rutgers.

### **Students with disabilities**

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/>.

### **APA style**

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 (including executive summary and illustrations) 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:

- <https://owl.english.purdue.edu/owl/resource/560/01/>
- <http://www.apastyle.org/>
- <http://www.citationmachine.net/>

## COURSE SCHEDULE

Week	Date	Class Topic	What is due?
1	1/19 – 1/24	WELCOME AND COURSE INTRODUCTION Review syllabus and important terminology	Read: Ch. 1  Make sure Data Analysis Tool for Excel is installed  Discussion Questions (“DQ”) #1
2	1/25 – 1/31	CENTRAL TENDENCY AND VARIABILITY <i>(peer review partner assigned)</i> <b>Excel:</b> Run and Illustrate Descriptive Stats! Discuss Project #1 and dataset	Quiz #1: Ch. 2 and Ch. 3 Read: Ch. 2 and Ch. 3 DQ #2
3	2/1 – 2/7	ILLUSTRATING AND WRITING ABOUT DATA <b>Excel:</b> Examples and Practice with Data!	Quiz #2: Ch. 4 Read: Ch. 4 DQ #3
4	2/8 – 2/14	Project #1 Coaching (sign up for meeting to discuss project questions/troubleshooting)  Project #1 Peer Review and Feedback <i>(peer-review rubric and instructions provided)</i>	Peer-Review completed by 2/12 at 11:59pm (remember to include memo)  Final Project #1 due 2/14 by 11:59pm (do not include memo in final draft)
5	2/15 – 2/21	CORRELATION  <b>Excel:</b> Correlation Matrices and Interpretation	Quiz #3: Ch. 5 Read: Ch. 5 DQ #4
6	2/22 – 2/28	RELIABILITY AND VALIDITY  Review Project #1 grading and feedback	Quiz #4: Ch. 6 Read: Ch. 6 DQ #5
7	3/1 – 3/7	HYPOTHESIS TESTING	Quiz #5: Ch. 7 Read: Ch. 7 DQ #6
8	3/8 – 3/14	PROBABILITY, NORMAL CURVE, Z-SCORES; INFERENCE STATISTICS Type I/II Errors Confidence Intervals  <b>Excel:</b> Z-scores and Interpretation; Create and interpret Confidence Intervals	Quiz #6: Ch. 8 and 9 Read: Ch. 8 and 9 DQ #7
9	3/15 – 3/21	<b>Spring Break: No class this week</b> [e.g., please do what you need to rest and recharge 😊]	
10	3/22 – 3/28	T-TEST [both Independent & Dependent Samples t-test] <b>Excel:</b> T-tests and interpretations  Discuss Project #2 instructions	Quiz #7: Ch. 11 and 12 Read: Ch. 11 and 12 DQ #8
11	3/29 – 4/4	ANOVA Excel: ANOVA and interpretations	Quiz #8: Ch. 13 Read: Ch. 13 DQ #9

12	4/5 – 4/11	<p>Project #2 Coaching (sign up for meeting to discuss project questions/troubleshooting)</p> <p>Project #2 Peer Review and Feedback (<i>peer-review rubric provided</i>)</p>	<p>Peer-Review completed by 4/9 at 11:59pm (remember to include memo)</p> <p>Final Project #1 due 4/11 by 11:59pm</p>
13	4/12 – 4/18	<p>REGRESSION [and revisit Correlation]</p> <p>Discuss Project #3 instructions</p>	<p>Quiz #9: Ch. 15 and 16 Read: Ch. 15 and 16 DQ #10</p>
14	4/19 – 4/25	<p>REGRESSION (continue)</p> <p>Review Project #2 grading and feedback</p>	<p>Read: Ch. 15 and 16 DQ #11</p>
15	4/26 – 5/2	<p>REGRESSION AND WRAP UP</p> <p>Project #3 Coaching (sign up for meeting to discuss project questions/troubleshooting)</p> <p>Project #3 Peer Review and Feedback (<i>peer-review rubric provided</i>)</p>	<p>Peer-Review completed by 5/2 at 11:59pm (remember to include memo) DQ #12</p>