

HRM Data-Based Decisions and Workforce Analytics

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Course Description

This course addresses the growing need for data-driven, analytical approaches to managing human resources. Students will learn statistical methods necessary to deal with business problems, increase knowledge and skills in planning and managing HR analytics projects, and develop an understanding of major legal and ethical considerations related to HR analytics projects.

Required Text

- Privitera, Gregory J. (2018) Essential Statistics for the Behavioral Sciences. Thousand Oaks, CA: Sage Publications Inc (ISBN: 978-1506386300).
- Additional readings and resources are posted on Canvas.

SMLR Learning Goals

This course is designed to meet three 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)

VII) Professional Development – Demonstrate an ability to interact with and influence others in a professional manner, and to effectively present ideas and recommendations

- Develop effective presentation skills appropriate for different settings and audiences
- Work productively in teams, in social networks, and on an individual basis

Student Accountabilities

Online learning requires a high level of discipline, dedication, and time management skills. While online learning offers you flexibility and convenience to learn from anyplace, anytime, *you are still expected to adhere to the all due dates.*

You are expected to:

- Have access to a reliable computer, and access to the Internet
- Log in to Canvas for your course ***on a daily basis***
- Check for any announcements, update to the syllabus, assignments, and/or discussions and respond accordingly
- Actively participate in the Discussion Forum
- Complete the assigned readings and/or media
- Complete the assigned exercises and projects
- Adhere to all due dates
- Refer to [Study Guides and Strategies \(Links to an external site.\)](#)
[Links to an external site.](#) for effective learning practices.

In case of computer failure

Make sure you have an alternative plan of access to your Canvas course in case your computer crashes (it happens). An extra computer at home, your employer's computer, or computer at your local library can be some alternatives. Additionally, be sure to backup your important documents and assignments on a flash drive or other external device.

Evaluation of Student Performance

- **Quizzes.** Students are required to take an online quiz for every module. These are open-book, open-note quizzes. Students should start the quizzes only after they finish the required readings and videos. There are no makeup quizzes without documented excuses. The total is worth 20% of the course grade.
- **Participation.** On a typical week, you are expected to (1) discuss a business case related to the course materials and (2) actively interact with peers in Discussion Forums. Participation is worth 40% of the course grade.
- **Individual research paper.** Select an organization or industry you are interested in and/or familiar with, and write a paper addressing how that organization or organizations in that industry use HRM-related analytics and metrics to drive performance. The paper is expected to be 8-10 pages, 12 font size, double spaced.

Grading Components	% of Final Course Grade
Weekly Quiz	20%
Weekly Discussion Forum Participation	40%
Individual Research Paper Draft	20%

Individual Research Paper Final	20%
Total	100%

Academic Integrity

As an academic community dedicated to the creation, dissemination, and application of knowledge, Rutgers University is committed to fostering an intellectual and ethical environment based on the principles of academic integrity. Academic integrity is essential to the success of the University's educational and research missions, and violations of academic integrity constitute serious offenses against the entire academic community.

Dishonesty of any kind will not be tolerated in this course. Dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. For more comprehensive information on academic integrity, please refer to the academic integrity website at <http://academicintegrity.rutgers.edu>.

Academic Support Services

Your experience in this class is important to me. If you have already established accommodations with Office of Disability Services (ODS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through ODS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact ODS at 848-445-6800 or dsoffice@echo.rutgers.edu.

Course Schedule

Time	Topic
Week 1	<p>Introduction to Data-Based Decisions</p> <p>-Readings: <i>Privitera, Gregory J. (2018) Essential Statistics for the Behavioral Sciences.</i> Chapter 1.</p> <p>-Discussion: How Google Sold its Engineers on Management. By David A. Garvin (2013)</p>
Week 2	<p>Summarizing Data: Descriptive Statistics</p> <p>-Readings: <i>Privitera, Gregory J. (2018) Essential Statistics for the Behavioral Sciences.</i> Chapters 2, 3 and 4.</p> <p>- Discussion: Behind the Surge of Interest in People Analytics?</p>
Week 3	<p>Probability and the Foundations of Inferential Statistics</p> <p>-Reading: <i>Privitera, Gregory J. (2018) Essential Statistics for the Behavioral Sciences.</i> Chapters 5 and 6.</p> <p>- Discussion - Why Humans Distrust Algorithms</p>
Week 4	<p>Hypothesis Testing</p> <p>-Reading: <i>Privitera, Gregory J. (2018) Essential Statistics for the Behavioral Sciences.</i> Chapters 7 and 8.</p> <p>- Discussions: The Robots Are Now Hiring</p>
Week 5	<p>Testing Means: T-tests</p> <p>-Reading: <i>Privitera, Gregory J. (2018) Essential Statistics for the Behavioral Sciences.</i> Chapters 9 and 10.</p> <p>- Discussion: hiQ Labs, Inc. v. LinkedIn: The Brutal Fight to Mine Your Data and Sell It to Your Boss</p>

Week 6	<p>Analysis of Variance</p> <p>-Reading: <i>Privitera, Gregory J. (2018) Essential Statistics for the Behavioral Sciences</i>. Chapter 11.</p> <p>- Discussion: Behind the Scenes of Google's People Analytics Team</p>
Week 7	<p>Correlation/Regression</p> <p>-Reading: <i>Privitera, Gregory J. (2018) Essential Statistics for the Behavioral Sciences</i>. Chapter 13.</p> <p>- Discussion: Talent Acquisition and HR Analytics</p>
Week 8	<p>Measurement and Workforce Analytics</p> <p>-Readings: 1. <i>Wayne, F.C. & Boudreau, J. W. (2008). Investing in People: Financial Impact of Human Resource Initiatives</i>. Chapter 1. Making HR Measurement Strategic. 2. Boudreau, J.W. & Lawler, E. (2017). How to Measure HR Effectiveness. 3. Mayhew, H., Saleh, T., & Williams, S. (2016). Making data analytics work for you—instead of the other way around. <i>McKinsey Quarterly</i>, 4, 1-8.</p> <p>- Discussion: How Uber Uses Psychological Tricks to Push Its Drivers' Buttons.</p>
Week 9	Rutgers Spring Recess.
Week 10	<p>Causal Modeling in HR Analytics: Practical Considerations</p> <p>-Readings: 1. <i>Pease, et al. (2012) Human Capital Analytics</i>. Chapter 6. 2. David Ritter. When to Act on a Correlation, and When Not To. <i>Harvard Business Review</i> 2014.</p> <p>- Discussion: Why the Google Flu Trends Project Failed</p> <p>- Individual research paper: Initial draft due</p>
Week 11	<p>Garbage In, Garbage Out: Discovering Data & Quality Control</p> <p>-Reading: 1. <i>Marr, B. (2015) Big Data : Using SMART Big Data, Analytics and Metrics to Make Better Decisions and Improve Performance</i>. Chapter 3. M=Measure, Metrics, and Data 2. <i>Pease et al. Human Capital Analytics</i>. Chapter 4. It is all about the data!</p> <p>- Discussion: Workforce Analytics at Gap Inc. (Part 1)</p>

Week 12	<p>Data Visualization</p> <p>-Reading: Berinato, S. (2016). Visualizations that really work. Harvard Business Review.</p> <p>- Discussion: Workforce Analytics at Gap Inc. (Part 2)</p>
Week 13	<p>Legal and Ethical Concerns</p> <p>-Reading: 1. Society of Human Resource Management. The Promise and Peril of Big Data. 2017 2. Society of Human Resource Management. 8 Aspects of GDPR Compliance.</p> <p>- Discussion: The Risks and Rewards of Using Data Analytics</p>
Week 14	<p>The Future of People Analytics</p> <p>- Individual research paper: Final version due</p>
Week 15	<p>Course Reflection</p>

* The instructor reserves the right to change this syllabus and course schedule during the semester as needed.