

**HR Analytics
Spring 2019
38:533:616:01**

Instructor:	Professor Michael Sturman, Ph.D., SPHR
Class Time:	Wednesday, 4:30-7:10 (Levin 219)
Office Hours	<ul style="list-style-type: none">• Tuesday/Wednesday 2:00-4:00• You can also make an appointment to meet with me. Please contact me by emails, preferably with 2 or 3 possible times (in order of preference, if any).
E-mail:	michael.sturman@rutgers.edu
Teaching Assistant	Hanbo Shim (Doctoral student, Levin 218I; hs612@rutgers.edu)
Textbook: (Required)	<i>Investing in People: Financial Impact of Human Resource Initiatives</i> Wayne Casio and John Boudreau Pearson Education, Inc. 2 nd Edition (2011) ISBN-10: 0134431812 ISBN-13: 978-0134431819 (I'd recommend purchasing the paperback)
Readings:	Readings should be accessible through the library system as well as the Canvas course webpage (https://tlt.rutgers.edu/canvas).

COURSE DESCRIPTION

This course is designed to introduce students to the fundamental logic, metrics, and methods necessary to conducting HR analytics. Organizations are increasingly relying on HR Analytics to improve decision-making in human resources, and ultimately contribute more effectively to organizational effectiveness. HR practitioners need to be skilled in understanding (1) the types of problems that can be addressed using HR analytics, (2) how to analyze and interpret human resource data, (3) how to evaluate the validity of those analyses, and (4) how to communicate analytical and statistical results in a way to influence decisions. The course is designed to teach basic HR analytics skills and critical thinking skills with respect to HR decision-making. The course will involve data analysis and statistics, but its emphasis is on application and real-world problem solving.

COURSE OBJECTIVES

Upon successfully completing this course, students should be capable of the following:

- Relating the importance of using data-based reasoning to support HR decision-making
- Engaging in critical thinking, translating how human resource issues and questions can be tested
- Performing basic data analyses to answer human resource questions
- Conducting summary statistics, correlation analysis, and regression analysis to answer human resource questions
- Communicate, in writing and orally, the meaning and implications of HR analytics

SMLR LEARNING OBJECTIVES

This course is designed to help students attain the following specific SMLR learning objectives:

I) Written & Oral Communication — Communicate effectively at a level and in modes appropriate to an entry level professional.

- Communicate complex ideas effectively, in standard written English
- Analyze and synthesize information and ideas from multiple sources to generate new insights
- Produce high quality executive summaries
- Make an argument using contemporary and/or historical evidence
- Present ideas and arguments in a logical and effective way

II) Quantitative, Qualitative, and Analytical Skills — Apply appropriate quantitative and qualitative methods for research 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)
- Apply qualitative methods appropriately, alone and in combination with quantitative methods

III) Research Skills — Demonstrate an ability to collect, analyze and synthesize information to make logical and informed decisions impacting the workplace. Use evidence to evaluate hypotheses, theories and approaches to workplace issues.

- Analyze and synthesize information and ideas from multiple sources to generate new insights
- Assess and critique relevant evidence and research findings
- Use evidence-based analysis to appraise the validity of various hypotheses, theories, and approaches to workplace issues

V) Understanding Context — Evaluate the context of workplace issues, public policies, and management decisions

- Analyze issues related to business strategies, organizational structures, and work systems

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 legal, regulatory and ethical issues related to their field
- 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

GRADING

Material	Weight
Homework Assignments: For most days, there will be a homework assignment, typically including a reading and an analysis.	50%
Participation: Students are expected to come to class prepared, including having completed all the readings assigned for the day and corresponding homework assignments. As a high-level elective, your participation will be critical to the success of the class.	10%
Analytics Project: Each student will be expected to conduct an analytics project, using data provided on a hypothetical company. Information about the company and the data will be provided in class. You will need to come up with your own question, engage in the appropriate analyses, discuss key findings of your study, and write a final report.	40% (total)
HR Analytics Question Proposal (5%; Due February 27): Provide a one-page description of your research question, why it is important, and how you plan to answer it. Identify which date (based on the topic area of your question and the list of topics in the syllabus) you plan to discuss your findings.	
In-class discussion (10%; Between March 27 and April 24): Students should be prepared to discuss their key findings during the class most relevant to their topic [see syllabus for dates on the following topics: EEO and Diversity (March 27); Staffing (April 10); Training and Development (April 17); Compensation (April 24)]. Your presentation should be relatively brief (5-10 minutes) and informal (but you should have some slides or handouts to help convey information on analyses you conducted). However you present, it should convey what you examined, how you examined it, what you found, and why it is important. You will also need to answer questions from both me and the class about what you examined and found.	
Written report (25%; Due May 8): At the end of the semester, you need to provide a formal report of your analytical project. The report should be between 5-10 pages (double-spaced; 12-point font; Times New Roman; 1-inch margins) of writing, with unlimited additional tables and appendices as needed. The report should be written as if it were being provided to the organizations; it is not intended to be a research report (although you may want to draw upon some research findings). The report should include (but is not limited to) the following: <ul style="list-style-type: none">• Executive summary of process and results (not part of 5-10 pages)• Description of question and its importance• Data used and analysis procedures• Interpretation of analyses• Discussion of key findings• Recommendations for practice• References Your grade will be determined by the quality of your question, how you addressed it, the quality of your analyses, how well you interpreted your analyses, the utility of your recommendations, and the clarity of your writing.	

GRADE SCORING

All assignments will be graded using letter grades (A+ to F) with the following numerical equivalents:

A+	100
A	95
A-	92
A-/B+	90
B+	87
B	85
B-	82
B-/C+	80
C+	77
C	75
C-	72
F	50
Incomplete	0

Final grades will be computed mathematically based on the aforementioned weighting and the scores on the various grade elements. Final grades for the class will be determined as follows:

90-100	A
85-89.9	B+
80-84.9	B
75-79.9	C+
70-74.9	C
< 70	F

COURSE INFORMATION, POLICIES, AND RESOURCES

Course Website:

The course Canvas website (<https://tlt.rutgers.edu/canvas>) will be the primary mechanism that I will use to communicate information to the entire class outside of lecture. Copies of important material, readings, assignments, lecture slides, and grades will all be available on the course website. The course website will also have copies of the PowerPoint slides that I will use in class. I will try to make these all available at least one day before the scheduled lecture. Assignments will also be available on the course website.

Computer Use:

This class will make extensive use of Excel and the Data Analysis Add-In. Please make sure you can use the Data Analysis tools. It would also be helpful to review your Excel skills, as you will be making heavy use of the tool throughout the class. Furthermore, computers will be required for class. That said, students are expected to only use the computers for class purposes.

Teaching Assistant “Help Hours” (by appointment): The Teaching Assistant for the course is Hanbo Shim, a doctoral student in SMLR. By appointment, Hanbo will hold *help hours* to address your questions about how to use Excel, although he cannot directly help your homework or term report. To make an appointment, please contact Hanbo by email (hs612@rutgers.edu) at least **24 hours** in prior during weekdays.

Assignment Policy:

Homework assignments are due at class time. Assignments handed in after class (or handed in to my office during class) may be marked down. Note, however, that even an “F” is much better than an “Incomplete.” So it is always better to at least hand an assignment in late than not hand it in at all. All assignments must be handed in by May 8.

Academic Integrity:

All students enrolled in this course are responsible for abiding by the guidelines outlined in the University’s Academic Integrity Policy. You can find the full policy at <http://academicintegrity.rutgers.edu/academic-integrity-policy/>. In particular, the principles of academic integrity require that a student do the following:

- *Properly acknowledge and cite all use of the ideas, results, or words of others.*
- *Properly acknowledge all contributors to a given piece of work.*
- *Make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.*
- *Obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.*
- *Treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.*
- *Uphold the canons of the ethical or professional code of the profession for which he or she is preparing.*

Attendance Policy:

I do not take attendance, although I strongly suggest you attend all classes to receive a good grade, and more importantly, to understand all aspects of the course's content. If you miss class, for whatever reason, it is your responsibility to obtain the missed material and hand in the homework.

If you miss class, please understand that it is your decision to do so. *It is not necessary to inform me that you have missed or will miss a class and informing me of such does not change any of the above policies.* I am happy to answer questions about the material in office hours; however, I will not reiterate entire lectures to those who missed class.

Accommodation:

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 on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Student-Wellness Services

Rutgers provides several resources to assist student who may be experiencing distress or mental health concerns. The following are some of the resources that are available to you if you need them.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ www.rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

The Office of Disability Services works with students with a documented disability to determine the eligibility of reasonable accommodations, facilitates and coordinates those accommodations when applicable, and lastly engages with the Rutgers community at large to provide and connect students to appropriate resources.

Scarlet Listeners: (732) 247-5555 / <http://www.scarletlisteners.com/>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

LECTURE TOPICS AND ASSIGNMENTS

- January 23: Topic #1: Introductions and Statistics Review
- January 30: Topic #2: HR Review (from an Analytics Perspective)
DUE:
Homework #1
Readings:
- Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 1.
 - Hammonds, K. H. (2005). Why we hate HR. *Fast Company*, August 2005, Issue 97, 41-47.
 - Milligan, S. (2018). HR 20205: Reach new heights by becoming a trusted advisor. *HR Magazine*, November/December, 30-38.
- February 6: Topic #3: The Scientific Method, Hypothesis Testing, and Evidence-Based Management
DUE:
Homework #2
Readings:
- Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 2.
 - Schwab, D. P. (2004). *Research Methods for Organizational Studies*. Lawrence Erlbaum Associates: Mahwah, NJ. (Chapter 1)
- February 13: Topic #4: Metrics and Measures
DUE:
Homework #3
Readings:
- Fink, A. A., & Sturman, M. C. (2017). "HR Metrics and Talent Analytics." In D. Collings, K. Mellahi, & W. F. Cascio (Eds.) *The Oxford Handbook of Talent Management*, pp. 375-395. Oxford University Press.
- February 20: Topic #5: The Value of Employee Performance
DUE:
Homework #4
Readings:
- Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 9.

- February 27: Topic #6: Estimating the value of human resource interventions
DUE:
Homework #5
HR Analytics Question Proposal
Readings:
 - Bontis, N., & Fitz-enz, J. (2002). Intellectual capital ROI: A causal map of human capital antecedents and consequents. *Journal of Intellectual Capital*, 3 (3), 223-247.
- March 6: Topic #7: Costing Turnover
DUE:
Homework #6
Readings:
 - Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 3.
 - Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 4.
- March 13: Topic #8: Engagement, Wellness, and Attitude Metrics
DUE:
Homework #7
Reading:
 - Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 6.
 - Vance, R. J. (2006). Employee engagement and commitment. *SHRM Foundation's Effective Practice Guidelines*.
- March 27: Topic #9: EEO and Diversity Analytics
DUE
Homework #8
Reading:
 - Chen, L., & Levine, B. (2016). Analytics to realize the value of gender diversity. *Workspan*, May, 12-14.
- April 3: Project Work Day
- April 10: Topic #10: Staffing Analytics
DUE:
Homework #9
Readings:
 - Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 8.
 - Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 10.
 - Grossman, R. J. (2006). Measuring hiring managers. *HRMagazine*, 51 (6), 93-97.

April 17: Topic #11: Training Evaluation and Quasi-Experiments

DUE:

Homework #10

Readings:

- Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 11.
- Russ-Eft, D., & Preskill, H. (2005). In search of the Holy Grail: Return on Investment in Human Resource Development. *Advances in Developing Human Resources*, 7, 71-85.

April 24: Topic #12: Compensation Analytics

DUE:

Homework #11

Readings:

- Montan, L., Palotas, Z., & Tinajero, A. (2014). How to incent performance using advanced analytics, *Workspan*, May, 39-43.
- Sturman, M. C., & McCabe, D. (2008). Choosing whether to lead, lag, or match the market: The case of Punk's Backyard Grill, a start-up restaurant. *Journal of Human Resources in Hospitality and Tourism*, 7, 85-97.

May 1: Topic #13: Future of HR and Wrap Up

- Cascio, W., & Boudreau, J. (2011). *Investing in People* (2nd edition). Pearson Education: Upper Saddle River, NJ. Chapter 12.
- Ulrich, D., & Dulebohn, J. H. (2015). Are we there yet? What's next for HR? *Human Resource Management Review*, 25, 188-204.

DUE:

Homework #12

May 8: DUE: Final Submission of Analysis Report