



38:533:705:90 Workforce Analytics and HRM Data-Based Decisions

Professor Helen Liu
xiangmin.liu@rutgers.edu
School of Management and Labor Relations
Rutgers University

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.

This course is listed as "**Asynchronous**". That is, this course will have a regular schedule of work and assignments due throughout each week, but it will not require you to be online at a particular time. Rather, I will provide materials—readings, videos, assignments, and exams—and you can access these materials and satisfy the course requirements within specified time frames.

One of the key advantages of remote, asynchronous courses is **inclusion and flexibility**. Students can learn and complete assignments anytime and anywhere they want, including in any time zone. In addition, asynchronous courses can help increase cognitive engagement, because students will have more time to engage with and explore the course materials. For those who are interested in the benefits and challenges of taking asynchronous courses, here is a nice summary: <https://rlc.rutgers.edu/node/442>.

Course Materials

All course readings will be available via the Canvas course website. Readings will draw from academic articles, popular press articles, book excerpts, and business cases. Please check Canvas **at least twice a week**.

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 Responsibilities

Completing synchronous courses requires a high level of discipline, dedication, and time management skills. While remote, asynchronous learning offers you flexibility and convenience to learn, you are still expected to:

- Have access to a reliable computer, and access to the Internet
- Check for any announcements, syllabus updates, assignments, and/or discussions and respond accordingly
- Actively participate in the Discussion Forum
- Complete the assigned readings and multimedia, exercises and quizzes
- Adhere to all due dates

Make sure you have **an alternative plan of access to your Canvas course** in case your computer crashes (it happens). 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 Unit, 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
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Weekly Quiz	20%
Weekly Discussion Forum Participation	40%
Individual Research Paper Draft and Peer Review	20%
Individual Research Paper Final	20%
Total	100%

Respect for Diversity and Inclusion

I am committed to fostering an inclusive, accessible learning environment where every student can thrive. It is my goal that students from all backgrounds and perspectives feel supported both in and outside the classroom, and that the diversity you bring is recognized as a resource, strength, and benefit.

To accommodate different learning needs and preferences, I use Ally, **which automatically offers course materials in multiple formats—PDF, HTML, audio, and translated versions.** For instance, if you experience eye strain or learn best by listening, you can access an audio version of most of the readings.

If you have suggestions for making the course more effective for you or for other students, please let me know. Students who have approved accommodations through Student Accessibility Services are encouraged to share them with me as early as possible so we can make appropriate arrangements.

Rutgers Academic Integrity

Students in this class and in all courses at Rutgers University are expected to uphold the highest standards of academic integrity. Cheating, plagiarism in written work, receiving and providing unauthorized assistance, and sabotaging the work of others are among the behaviors that constitute violations of the Academic Integrity Policy. You are expected to be familiar with this policy. If you have questions about specific assignments, be sure to check with the instructor. The Academic Integrity Policy defines all forms of cheating and the procedures for dealing with violations. You should be familiar with this policy. The trust between the instructor and the class depends on your acceptance of this essential principle of behavior in the University. Do your own work and do not provide unauthorized assistance to others and you will find this course more rewarding.

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

Course Schedule

Time	Topic
Unit 1	Introduction to Data-Based Decision Discussion - What's Behind the Surge of Interest in People Analytics
Unit 2	Summarizing Data: Descriptive Statistics Discussion - Why Humans Distrust Algorithms
Unit 3	Probability and the Foundations of Inferential Statistics Discussion – AI and Virtual-Reality Simulations in Hiring Decisions
Unit 4	Hypothesis Testing Discussion - The Fight to Mine Your Data and Sell It to Your Boss
Unit 5	Testing Means: T-tests Discussion - Behind the Scenes of Google's People Analytics Team
Unit 6	Analysis of Variance Discussion - Talent Acquisition and HR Analytics
Unit 7	Correlation/Regression Discussion - Analytical Performance Management
Unit 8	Measurement and Workforce Analytics Discussion - Building a Data Democracy at Gap Inc
Unit 9	Causal Modeling in HR Analytics: Practical Considerations <i>Initial paper due</i>
Unit 10	Discovering Data & Improving Data Quality Discussion – Improve Diversity with Data at Eaton Corp.
Unit 11	Data Visualization Discussion – Telling Stories with Data
Unit 12	The Dark Side of People Analytics? Discussion – Digital Surveillance in the Workplace
Unit 13	General Data Protection Regulation (GDPR) and Other Legal Concerns Discussion – Employee Use of Social Media
Unit 14	The Future of People Analytics <i>Final paper due</i>