

COURSE SYLLABUS
University of Houston
C. T. Bauer College of Business
MANA 7380: People Analytics

Professor: Lawrence Houston III	Class Time: Asynchronous - CANVAS
Office: Melcher Hall 310 G	Email: lhouston@bauer.uh.edu
Office Hours: Mondays from 12-1 PM	Phone: (713) 743-4650

COURSE DESCRIPTION: This course introduces techniques for linking people-oriented metrics to business strategy and organizational performance through applied research. Organizations increasingly rely on people analytics for human capital decisions. To effectively make use of analytics, human resource (HR) practitioners need to be skilled in understanding (1) the types of problems that can be addressed using analytics; (2) when findings are likely to be valid and reproducible, and (3) how to evaluate and present statistical results. In short, HR practitioners need critical-thinking skills with respect to analytics. This course is designed to teach critical thinking skills about analytics by applying basic statistical principles to HR-related data, and by discussing examples and problems from a variety of HR contexts. The course will focus on interpreting raw data, the measurement of HR concepts, strengths and weaknesses of different study designs, ways to use statistics to augment decision-making, and ways to clearly and accurately write about statistical findings. Although not a traditional “research methods” class, this course attempts to merge scientifically rigorous methods with the human capital decisions that must be made inside organizations. Doing so is necessary for today’s competitive environment in managing human and intellectual capital.

COURSE LEARNING OBJECTIVES: By the end of this course, you should be able to:

- Effectively utilize data to add evidence-based value to your organization’s human capital decisions.
- Detail the process by which metrics of human capital can be causally linked to organizational performance.
- Demonstrate applied skills in using statistical techniques to inform human capital decisions.
- Develop skills in scientific inquiry in terms of hypothesis formation and research design for people-related questions.
- Understand the research process and its application through the lens of people analytics.

BAUER LEARNING OBJECTIVES: This course is designed to help you attain the following Bauer learning objectives:

- **Communication** — Demonstrate effective written and oral communication skills, at a level and in modes appropriate to an entry level professional.
- **Analytical Problem-Solving Skills** — Articulate logical solutions to complex or unstructured business analytics problems.
- **Research Skills** — Demonstrate an ability to analyze and interpret data and leverage relevant research, metrics and analytics to advance evidence-based HR practice.

- **Critical Thinking** — Demonstrate the ability to define, structure, and analyze complex and unstructured HR leadership problems.
- **Leadership** — Demonstrate an understanding of the components of leadership effectiveness and how to develop them. This includes demonstrating an ability to interact with and influence others in a professional manner, and to effectively present ideas and recommendations.

COURSE FORMAT: This course is taught asynchronously, which means there is no designated day or time assigned to the course. Asynchronous instruction involves accessing content, such as recorded video lectures, readings, assignments, and assessments during a flexible time frame, with due dates as specified on the last page of this syllabus.

The Canvas learning management system will be the primary home for this course. No attendance is taken. The course will be run in a fully asynchronous format. However, there are weekly “in-class” assignments assessed through “quizzes” on the Canvas site. You are required to complete these quizzes each week. Assignments will be organized by the week of the semester, and it is expected that you complete each week of assignments by Sunday (11:59pm CST) of that week.

REQUIRED MATERIALS: You will need to purchase the following textbook: Wayne F. Casio, John W. Boudreau, & Alexis A. Fink. (2019). Investing in People: Financial Impact of Human Resource Initiatives (3rd Edition). Pearson Education, Inc. ISBN-13: 978-1586446123. Here are links to purchase the book from [Amazon](#) (\$33.49) or [VitalSource](#) (\$12.25 to \$34.99).

Other required readings will be made available via Canvas.

TECHNICAL REQUIREMENTS: In order to facilitate communication and encourage collaboration in this virtual class, we will use Canvas, Microsoft Teams, and Email.

For individual problems with your computer or if you need help learning how to use Canvas, click on the Help menu tab on the Canvas app.

Students must be aware that computer downtime will occur on a scheduled basis as well as the possibility of unscheduled downtime. Also, not all devices fully support the features of the tools we will use – I strongly advise ensuring access to a laptop/computer (as opposed to a tablet or a smart phone). If any issues arise during completion of your assignments, make sure to take a screen shot of the error so that you can better communicate that issue with me and/or Canvas support. Do not wait until the last minute to submit your assignments, make sure to plan ahead!

Note that this class will make extensive use of Excel and the Data Analysis Add-In. Please make sure you can use the Data Analysis tools.

For Windows: <https://support.office.com/en-us/article/load-the-analysis-toolpak-in-excel-6a63e598-cd6d-42e3-9317-6b40ba1a66b4%23OfficeVersion=Windows>
For Mac: <https://support.office.com/en-us/article/load-the-analysis-toolpak-in-excel-6a63e598-cd6d-42e3-9317-6b40ba1a66b4#OfficeVersion=MacOS>

EVALUATION CRITERIA AND POLICY:

1. Quizzes (5%)
2. Homework Assignments (15%)
3. Analytical Workbook (75%)

Quizzes: For most weeks, there will be one or more short quizzes designed to reinforce key concepts and provide practice with analytical thinking related to that week's material. Although the class is asynchronous and virtual, these quizzes simulate the kind of in-class exercises we might do in a live setting. Quizzes are graded, and you must complete them to receive full credit. However, you may **retake each quiz as many times as you like before the due date**, and only your highest score will count. This structure is intended to support learning, not penalize mistakes.

Quizzes typically take about 15–20 minutes per week. If you find yourself spending significantly more time, you're probably overthinking them—though you are welcome to spend more time if you wish. The goal is to engage seriously but efficiently with the material to help solidify your understanding.

Homework Assignments: Most weeks will include a reading and a corresponding homework assignment. Both the reading and the assignment will be provided in the module for the week they are due (for example, the reading and assignment for Week 2 will appear in the Week 2 module). All homework assignments should be formatted as follows: **double-spaced, 12-point Times New Roman font, with 1-inch margins**.

Analytical Workbook: Throughout the semester, you will complete a series of workbook modules based on data from a hypothetical company, *Mr. Macky's Cajun Cuisine*. All background information and data will be provided via Canvas. There are **five workbook modules** in total: four are due at various points during the semester, and the fifth is due during the finals period. Each module includes a set of exercises that progressively move from basic to more advanced analyses, covering different areas of HR analytics. All statistical work can be completed using Excel's Analysis ToolPak add-in. However, if you are comfortable with other statistical software, you are welcome to import the data and perform the analyses using the tool of your choice.

Revise and Resubmit For Modules 1-4, after each part submitted, I will try to provide you with grades within one week. The grading will indicate which questions were answered incorrectly. You can then revise and resubmit your responses. The grade for resubmission will replace your initial grade of each module only if it is higher than the initial grade (which it should be, because you shouldn't change any correct answers). Although the resubmission is optional and you may choose not to resubmit your response, I encourage you to review your response for learning purposes. The last day to hand in resubmissions is May 8.

Module 1: Summary Information

Due: February 15

Weight: 10% of final grade

In this module, you will conduct foundational analytics to develop a general understanding of *Mr. Macky's Cajun Cuisine*. Your analysis will focus on summary information related to:

- Current employees
- Former employees from the past several years
- The various restaurant units within the chain

The insights you generate in this module will establish a baseline for more complex analyses in future modules.

Module 2: Performance & Turnover

Due: March 29

Weight: 15% of final grade

This module focuses on examining how managerial performance and employee turnover rates are associated with unit performance. You will analyze how job performance influences outcomes across the organization and assess the impact of employee turnover. A key component involves developing predictive models to estimate the likelihood that employees will leave *Mr. Macky's Cajun Cuisine*. Through this work, you will deepen your understanding of both the antecedents and consequences of performance and turnover, insights that are essential for making evidence-based HR decisions.

Module 3: Engagement, Diversity & Selection

Due: April 19

Weight: 15% of final grade

In this module, you will explore issues associated with engagement, diversity, and selection. Your analysis will focus on:

- Assessing the quality and effectiveness of Mr. Macky's employee engagement metrics
- Evaluating how successful Mr. Macky's has been in its selection efforts, both in terms of the performance ratings of those hired and the diversity of its recruitment and compensation practices
- Reviewing options for designing a new selection system and explore ways to improve the quality of Mr. Macky's managerial hires
- Analyzing the relative effectiveness of different selection tools

The analyses required for this module are important because they enable a direct link between people-related decisions (engagement, diversity, selection) and Mr. Macky's key performance indicators.

Module 4: Employee Development & Compensation

Due: May 3

Weight: 15% of final grade

This module focuses on the relationship between employee development, organizational experience, and compensation practices at Mr. Macky's. You will examine:

- How employees develop over time, despite limited formal training
- The value of accumulated experience to organizational performance
- The company's compensation structure. You will focus specifically on how well it rewards performance, incentivizes future contributions, and supports the retention of high-performing employees

Your analysis will offer insights into how Mr. Macky's can strengthen its approach to employee growth and reward systems.

Module 5: Cross-Function and Big Picture

Due: May 12

Weight: 20% of final grade

This final module simulates the kind of integrative analysis you might perform in a real-world people analytics role. You will revisit concepts and analytics covered in earlier modules to answer complex questions that span multiple functional areas.

Additionally, you are asked to translate data into actionable insights by developing an interactive HR dashboard. These visualizations will enable you to present data in a clear and strategic manner and, in doing so, allow executives to make informed decisions that more effectively align HR strategies with organizational goals.

Grading System: Grades will be assigned using the following scale. No curve or score adjustments will be given.

Letter Grade	Total Points	Letter Grade	Total Points	Letter Grade	Total Points
A	100 to 93	B-	82 to 80	D+	69 to 68
A-	92 to 90	C+	79 to 78	D	67 to 60
B+	88 to 89	C	77 to 73	F	< 60
B	87 to 83	C-	72 to 70		

Mental Health and Wellness Resources: The University of Houston has a number of resources to support students' mental health and overall wellness, including [CoogsCARE](#) and the [UH Go App](#). UH [Counseling and Psychological Services \(CAPS\)](#) offers 24/7 mental health support for all students, addressing various concerns like stress, college adjustment and sadness. CAPS provides individual and couples counseling, group therapy, workshops and connections to other support services on and off-campus. For assistance visit uh.edu/caps, call 713-743-5454, or visit a [Let's Talk](#) location in-person or virtually. [Let's Talk](#) are daily, informal confidential consultations with CAPS therapists where no appointment or paperwork is needed.

Need Support Now?

If you or someone you know is struggling or in crisis, help is available. Call CAPS crisis support 24/7 at 713-743-5454, or the National Suicide and Crisis Lifeline: call or text [988](https://988lifeline.org), or chat 988lifeline.org.

Title IX/Sexual Misconduct: Per the UHS Sexual Misconduct Policy, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and state law and must report incidents of sexual misconduct (sexual harassment, non-consensual sexual contact, sexual assault, sexual exploitation, sexual intimidation, intimate partner violence, or stalking) about which they become aware to the Title IX office. Please know there are places on campus where you can make a report in confidence. You can find more information about resources on the Title IX website at <https://uh.edu/equal-opportunity/title-ix-sexual-misconduct/resources/>.

Reasonable Academic Adjustments/Auxiliary Aids: The University of Houston is committed to providing an academic environment and educational programs that are accessible for its students. Any student with a disability who is experiencing barriers to learning, assessment or participation is encouraged to contact the Justin Dart, Jr. Student Accessibility Center (Dart Center) to learn more about academic accommodations and support that may be available to them. Students seeking academic accommodations will need to register with the Dart Center as soon as possible to ensure timely implementation of approved accommodations. Please contact the Dart Center by visiting the website: <https://uh.edu/accessibility/> calling (713) 743-5400, or emailing jdcenter@Central.UH.EDU.

The [Student Health Center](#) offers a Psychiatry Clinic for enrolled UH students. Call 713-743-5149 during clinic hours, Monday through Friday 8 a.m. - 4:30 p.m. to schedule an appointment. The [A.D. Bruce Religion Center](#) offers spiritual support and a variety of programs centered on well-being.

The [Center for Student Advocacy and Community \(CSAC\)](#) is where you can go if you need help but don't know where to start. CSAC is a “home away from home” and serves as a [resource hub](#) to help you get the resources needed to support academic and personal success. Through our [Cougar Cupboard](#), all students can get up to 30 lbs of FREE groceries a week. Additionally, we provide 1:1 appointments to get you connected to on- and off-campus resources related to essential needs, safety and advocacy, and more. The [Cougar Closet](#) is a registered student organization advised by our office and offers free clothes to students so that all Coogs can feel good in their fit. We also host a series of cultural and community-based events that fosters social connection and helps the cougar community come closer together. Visit the CSAC homepage or follow us on Instagram: @uh_CSAC and @uhcupbrd. YOU belong here.

Women and Gender Resource Center: The mission of the [WGRC](#) is to advance the University of Houston and promote the success of all students, faculty, and staff through educating, empowering, and supporting the UH community. The WGRC suite is open to you. Stop by the office for a study space, to take a break, grab a snack, or check out one of the WGRC programs or resources. Stop by Student Center South room B12 from 9 am to 5 pm Monday through Friday.

Academic Honesty Policy: High ethical standards are critical to the integrity of any institution, and bear directly on the ultimate value of conferred degrees. All UH community members are expected

to contribute to an atmosphere of the highest possible ethical standards. Maintaining such an atmosphere requires that any instances of academic dishonesty be recognized and addressed. The [UH Academic Honesty Policy](#) is designed to handle those instances with fairness to all parties involved: the students, the instructors, and the University itself. All students and faculty of the University of Houston are responsible for being familiar with this policy.

Students are expected to adhere to the University's Academic Honesty Policy; violations may result in disciplinary action such as failure of the assignment in question or the receipt of a failing grade in the class for the semester. I also call your attention to the Bauer Policy on the use of AI in writing assignments: The C.T. Bauer College of Business (Bauer) prohibits the use of Artificial Intelligence-based tools such as ChatGPT for all coursework submitted for credit at Bauer. Such use will be treated as plagiarism, a violation of the University of Houston's academic honesty policy 3.02(a), unless the students' instructor has granted express permission to use AI-based tools for their coursework. Where the students' instructor has granted express permission, students shall use proper citations, including the identification of the AI-based tools used on all assignments submitted for credit.

Excused Absence Policy: Regular class attendance, participation, and engagement in coursework are important contributors to success. Absences may be excused as provided in the University of Houston [Undergraduate Excused Absence Policy](#) and [Graduate Excused Absence Policy](#) for reasons including: medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to [military service](#), [religious holy days](#), [pregnancy and related conditions](#), and [disability](#).

Recording of Class: Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the [Justin Dart, Jr. Student Accessibility Center](#). If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

ASSIGNMENT SCHEDULE

Subject to modification at professor's discretion. You will be notified of any changes.

Week	Dates	Topics	Readings	Assignments Due
1	1/20-1/25	Introduction and Statistics Review		Quiz #1 Discussion Board (Introductions)
2	1/26-2/1	Review of People Analytics	Cascio et al. (2019), Ch. 1 Hammonds (2005) Lytle (2022)	Reading Assignment #1 Quiz #2
3	2/2-2/8	Scientific Method, Hypothesis Testing, EBM	Cascio et al. (2019), Ch. 2 Schwab (2004), Ch. 1	Reading Assignment #2 Quiz #3
4	2/9-2/15	Metrics and Measures	Fink & Sturman (2017)	Reading Assignment #3 Quiz #4 Discussion Board (Workbook Module #1)
5	2/16-2/22	Value of Employee Performance	Cascio et al. (2019), Ch. 9	Reading Assignment #4 Workbook: Module 1
6	2/23-3/1	Estimating HR Intervention Value	DiClaudio (2019)	Reading Assignment #5 Quiz #5
7	3/2-3/8	Turnover and Absenteeism Costs	Cascio et al. (2019), Ch. 4 & 5	Reading Assignment #6 Quiz #6
8	3/9-3/15	Predicting Turnover	Harbert (2020) Ramamurthy et al. (2015)	Reading Assignment #7 Quiz #7 Discussion Board (Workbook Module #2)
9	3/23-3/29	Engagement, Wellness, Attitudes	Cascio et al. (2019), Ch. 6 & 7 McDade (2022)	Reading Assignment #8 Workbook: Module 2

10	3/30-4/5	EEO and Diversity Analytics	Cascio et al. (2019), Ch. 8 TRUSAIC (2021) Nagele-Piazza (2020)	Reading Assignment #9 Quiz #8
11	4/6-4/12	Staffing Analytics	Cascio et al. (2019), Ch. 10 Shet & Nair (2022) Zielinski (2020)	Reading Assignment #10 Quiz #9 Discussion Board (Workbook Module #3)
12	4/13-4/19	Training Evaluation & Quasi-Experiments	Cascio et al. (2019), Ch. 11 Tucker (2022)	Reading Assignment #11 Workbook: Module 3
13	4/20-4/26	Compensation Analytics	Mortensen & Edmondson (2023) Sturman & McCabe (2008)	Reading Assignment #12 Quiz #10 Discussion Board (Workbook Module #4)
14	4/27-5/3	Future of HR and Wrap-Up	Cascio et al. (2019), Ch. 12 World at Work (2021)	Workbook: Module 4 Discussion Board (Workbook Module #5)
15	5/6-5/12			Workbook: Modules 5