

**C. T. Bauer College of Business
University of Houston**

MARK 7397 (MARK 7338): Introduction to Marketing Analytics
Asynchronous Online
(Tentative. Subject to change)

This course requires a lot of work. It demands weekly attention and studies.

Instructor	Dr. Ye Hu, Office: 385G Melcher Hall Office Hours: TBD
Email	yehu.mark7338@gmail.com To receive timely response, do not send your emails to any other address.
Course Materials	No required textbook. Course materials will be posted on Canvas throughout the semester. Weekly lecture videos will be on this YouTube channel , with links posted on Canvas.
Required Hardware	You need to have access to a computer with Excel to complete this course, preferably a Windows PC. If you can, use the same computer throughout the semester. Especially do not use an unfamiliar computer with different settings for an exam.
Required Software	Microsoft Office 365 Excel (check your version). In Excel, go to “File” -> Account -> About Excel, to check your Excel version. You MUST upgrade your Excel to the 365 version (2021 or later). Earlier versions of Excel lack certain functions and have different operations on some functions. You need to install the Excel app on your computer. Do <u>not</u> use browser-based Excel because some functions are not available. Do not rely on Excel’s “AutoSave.” Instead, save the file manually and frequently when you operate an Excel file. Do not use Microsoft OneDrive. Instead, use a more reliable cloud drive such as Dropbox, or save the file locally on your hard drive. A Windows computer is strongly preferred. All the Excel demo videos were recorded under a Windows system. Excel 365 is functionally identical under MacOS. However, shortcut keys usually differ. Pivot charts appear differently. If a student chooses to use a Mac, the student has to be prepared to adapt on a Mac. Fortunately, all the Excel functions required in this course are available on a Mac.

Make sure your @cougarnet.uh.edu email works and sends push notifications, as this is the only email the instructor has direct access to. Students are responsible for all reminder emails, changes to the schedule, update of the syllabus, etc. that are posted on Canvas or sent to your @cougarnet.uh.edu email.

COMMON PROBLEMS AND SOLUTIONS

1. Submitting the wrong file.

Always save your Excel file and close it before submission. Know where you are saving your files. Even better, use a dedicated file folder on your computer for this course. When uploading your submission, make sure to select the correct file. Again, save and close the file before submitting it. You will be able to update your submission on Canvas before the deadline. No updates after the deadline will be accepted.

2. XXX is not working on my computer.

The most likely causes are:

- a. You are using a browser-based Excel (Solution: switch to the Excel app installed on your computer)
- b. Because you have an older version of Excel (Solution: upgrade your Excel to the latest Excel 365 version)
- c. There is a mistake in a formula or operation (Solution: double check your work. Arrange office hours).

3. Neighborhood Blackout. Curriculum-related Traveling.

This course is asynchronous online, and each quiz/assignment has wide time window (7 days) for completion; therefore, blackouts or traveling are not legit reasons for exempting a quiz/assignment. Learn to manage your time better and do not wait until the last night to complete assignments.

4. Family emergency.

Given the length of the deadline for each assignment/quiz, no excuse will be accepted unless a student is unfit for coursework during the entire 7-day time window of the quiz/assignment (with the proof of a doctor's note). In addition, since the course grading allows the lowest quiz/assignment grade to be dropped, the student can take this opportunity to drop the grade of a missing quiz/assignment.

OBJECTIVES

In the digital age, data is ubiquitous. Even traditional marketing jobs now require new hires to be able to clean up data and extract meaningful information from it. Basic knowledge on marketing analytics and hands-on experience with data and analytics are must-have skills for today's marketers.

The primary objective of this course is to help business students – marketing majors in particular – gain essential skills in marketing analytics. In completing the course, we hope our students will be able to comfortably make sense of data with simple and practical analytics. This course covers analytics in various aspects of marketing functions such customers, distribution, promotions, pricing, and product designs. With this course, we hope the students can achieve three goals:

1. Good at Excel
2. Can make sense of data

3. Can tackle marketing issues analytically

ASSESSMENT AND GRADES

All course materials, video links, quizzes, and assignments will be posted on Canvas. The videos/materials/quizzes/assignments usually carry a deadline of one week. All quizzes/assignments must be submitted before the deadline. No late submissions will be accepted. Students must visit UH Canvas **at least twice a week**, appropriately spaced, to ensure all materials, videos, quizzes, and assignments are completed.

The final grade in the course will depend on the total points earned (out of 200 points). There is no grading curve. The total points are based on the following assessment method:

A. Weekly Quizzes	40
B. Weekly Assignments	80
C. Two Exams	40 each

All quizzes and assignments must be submitted electronically through Canvas before the deadline. To be able to complete assignments, a student must go through posted class videos on a weekly basis and progress with the materials.

Quiz answers will be posted on Canvas upon the deadline. There is no redo of the quizzes. No late submissions will be accepted. There will be 12 quizzes. Each student may drop two lowest grades of the quizzes. The remainder of the 10 quizzes will count towards the total quiz grade (40 points).

There will be 11 assignments. Each student may drop the lowest grade of the assignments. The remainder of the 10 assignments will count towards the total assignment grade (80 points).

Given the wide time window of 7 days for completion, **no extension will be granted on the quizzes or assignments**. Weddings, funerals, deaths, births, intermittent sick day, accidents, blackouts, etc. are **not** acceptable excuses. The only acceptable exempt for a quiz or assignment is a doctor's note that the student is unfit for coursework throughout the whole 7-day window.

Double check your assignment before uploading it. **Save the file. Close it. Then start the upload process**. If we cannot read your work, we cannot give you points. When uploading documents to Canvas (assignments, etc.), it is the student's responsibility to stay on the webpage until Canvas confirms successful submission. If a student incurs a technical issue during the submission, the student must inform the teaching assistant immediately and before the deadline. No excuse after the deadline will be accepted.

There will be 2 exams (see course schedule for the exam time and dates). Working, meeting, etc. during the predetermined exam time, are not legit excuses for rescheduling. Do not register for the class if you cannot take the exams on the scheduled dates.

The exams are individual. No outside help is allowed. **The exams will require screen sharing + web camera supervision through the UH CASA Monitor.**

If a student misses either exam due to medical reasons (a doctor's note is required) or emergency (a police report is required), a makeup exam will be given at the end of the semester. The makeup exam will be comprehensive, including everything covered in the course.

The points-to-grade conversion for the course will be as follows:

Points	Grade
$188 \leq \text{Score}$	A
$180 \leq \text{Score} < 188$	A-
$170 \leq \text{Score} < 180$	B+
$160 \leq \text{Score} < 170$	B
$150 \leq \text{Score} < 160$	B-
$140 \leq \text{Score} < 150$	C+
$130 \leq \text{Score} < 140$	C
$120 \leq \text{Score} < 130$	D
$\text{Score} < 120$	F

LEARNING GOALS

Goal	Achieved through
Working Knowledge of Ethics and Legal Compliance	Legal and ethics interpretation of data
Disciplinary Competence	Cutting edge practical marketing analytics
Communication Skills	Assignments, discussions
Critical Thinking	Class discussions, assignments, exams

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.

REASONABLE ACADEMIC ADJUSTMENTS/AUXILIARY AIDS

The University of Houston complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for disabled students. In accordance with Section 504 and ADA guidelines, UH strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a disability requiring an academic adjustments/auxiliary aid, please contact [the Justin Dart Jr. Student Accessibility Center](#) (formerly the Justin Dart, Jr. Center for Students with DisABILITIES).

EXCUSED ABSENCE POLICY

Regular class attendance, participation, and engagement in coursework are important contributors to student 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.

SYLLABUS CHANGES

Due to the changing nature of the COVID-19 pandemic, please note that the instructor may need to make modifications to the course syllabus and may do so at any time. Notice of such changes will be announced as quickly as possible through Canvas.

RESOURCES FOR ONLINE LEARNING

The University of Houston is committed to student success, and provides information to optimize the online learning experience through our [Power-On](#) website. Please visit this website for a comprehensive set of resources, tools, and tips including: obtaining access to the internet, AccessUH, and Canvas; requesting a laptop through the Laptop Loaner Program; using your smartphone as a webcam; and downloading Microsoft Office 365 at no cost. For questions or assistance contact UHOnline@uh.edu.

UH EMAIL

Please check and use your CougarNet email for communications related to this course. To access this email, [login](#) to your Microsoft 365 account with your CougarNet credentials.

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/>.

HELPFUL INFORMATION

Coogs Care: <https://uh.edu/dsa/coogscare/>

Student Health Center: <https://www.uh.edu/healthcenter/>

SCHEDULE OF CLASSES (Tentative, Subject to change, check Canvas for all updates)

Course materials, videos, quizzes, and assignments will be posted each week. Every posted quiz or assignment will be due the following week, allowing approximately 7 days for completion. Follow posted due date and time on Canvas.

Week	Topic	Due
Part 1: Marketing Metrics and Excel		
0	Orientation	
1	Course/Excel introduction	
2	Data, data, everywhere	Quizzes (2x) + Assign.
3	Does my advertising work?	Quiz + Assignment
Part 2: Customer Analytics		
4	Customer profiling	Quiz + Assignment
5	Targeting customers	Quiz + Assignment
6	Customer lifetime value	Quiz + Assignment
7	Review	Quiz + Assignment
8	Exam 1	
Part 3: Four P's Analytics		
9	Price optimization	
10	Place: distribution and salesforce optimization	Quiz + Assignment
11	Promotion: experiments	Quiz + Assignment
12	Predicting customer behavior: regression	Quiz + Assignment
13	Product: new product design / conjoint analysis	Quiz + Assignment
14	Review Happy Thanksgiving!	Quiz + Assignment
15	Exam 2	

Detailed Course Planning & Learning Points

Week	Marketing Topics	Analytics Topics	Data Sets	Excel Functions
1	Introduction Excel Basics	Profit margin Gross margin % growth Demographics	Restaurant Profit Margin Grades and Price Lookup Travel Salesperson	Spreadsheet basics FORMULATEXT SUM AVERAGE Conditional Formatting Copy formula Format Data Naming Cells DATA -> SORT FILTER VLOOKUP HLOOKUP Copy Formula MATCH INDEX
2	Data	Types of data	Load data into Excel from Web Music chart Sales rep records Grades Summary Product records test operations Google search heat map	Grabbing data online Histogram Heat map COUNT COUNTIF COUNTIFS COUNTA COUNTBLANK SUMIF SUMIFS AVERAGEIF AVERAGEIFS TRIM LEFT RIGHT MID VALUE CONCAT
3	Advertising	Chain Probability ROI AdStock	PPM Advertising ROI PPM Advertising Pricing AdStock Ad Media Leonardo DiCapro	IF SWITCH PASTE (special) Copy Sheet Goal Seek Column Chart Combo Chart (bonus)
4	Customer Profiling	Charts Contingency tables	MLB Players 1900- Drugstore Cash Reserve Automakers Bitcoin Trading History Groceries pivot Travel pivot Minivan pivot	Pivot table Charts <ul style="list-style-type: none"> • Column • Line • Scatter • Pie • Waterfall • Bubble • Combo Secondary Axis

Syllabus: Introduction to Marketing Analytics

				Label charts Change axis units Freeze panels
5	Targeting Customers	RFM framework Collaborative filtering	Mail Order RFM Collaborative Filtering	RANK SQRT SUMPRODUCT
6	Customer Value	Net present value Valuing customers Valuing firms	CLV Loyalty CLV Poaching	NPV What-if-analysis Data table Goal seek
7-8	Review & Exam 1		NFL Players Netflix challenge Banking customer CLV	
9	Price	Optimization	Creating demand curve Lemon stand profit Lemon stand solver Razors and blades	Data table Solver (GRG nonlinear)
10	Place: Distribution Sales	Maps Linear programming	Store locations Warehouse location choice Traveling salesperson Sales efforts allocation	Map Solver (Evolutionary)
11	Promotion	Experiments t-tests Uncertainty Stat significance	Rand Sample size Distribution of results Analyzing campaign data	RAND RANDBETWEEN Box and Whisker chart T.TEST
12	Prediction	Regression and inferences	Box office data	Multiple Regression
13	Product	Conjoint analysis	Design a conjoint analysis Interpret conjoint results	Conjointly
14-15	Review & Exam 2			