

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

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. Bowen Luo, Office: 385B Melcher Hall Zoom Office Hours: Thursdays 3:00-4:00 pm. Link
Teaching Assistant	Mr. Pranav Thorat Online Office Hours: Wednesdays 10:00 am -12:00 noon or by appointment. Click this Link to access Teams office hour.
Email	bluomark@central.uh.edu To receive timely response, do not send your emails to any other address. Both the instructor and the teaching assistant have access to this email. We strive to answer your emails promptly. However, if you email us within 12 hours of the deadline of a quiz/assignment, we cannot guarantee that you will receive a reply before the deadline.
Course Materials	No required textbook. Course materials will be posted on Canvas throughout the semester. Weekly lecture videos will be available on this YouTube channel , with links posted on Canvas.
Required Hardware	You need to have access to a computer with Excel installed to complete this course. A Windows PC is strongly preferred. If possible, use the same computer throughout the semester. Especially do not use an unfamiliar or new computer 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 many 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 count on 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, and pivot charts appear differently. If a student chooses to use a Mac, the student must be prepared

to adapt on a Mac. Fortunately, almost all the Excel functions required in this course are available on a Mac.

COURSE PREPARATION

1. **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, schedule changes, updates to the syllabus, etc. that are posted on Canvas or sent to your @cougarnet.uh.edu email.
2. The UH CASA monitor (<https://teachingtools.uh.edu/cm/>) will be adopted for exam proctoring. An opportunity will be provided early during the semester for a CASA monitor drill. This drill is extremely important for you to go through your exam without hiccups.

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 of 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. By 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 as 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 is allowed to drop the two lowest grades of the quizzes. The remaining 10 quizzes will count towards the total quiz grade (40 points).

There will be 11 assignments. Each student is allowed to drop the lowest grade of the assignments. The remaining 10 assignments will count towards the total assignment grade (80 points).

Given that this class is asynchronous online and the quizzes/assignments have a wide time window of 7 days for completion, **no extension will be granted on the quizzes or assignments.** Weddings, funerals, deaths, births, intermittent sick days, accidents, blackouts, etc. are **not** acceptable excuses. The only acceptable exception for a quiz or assignment extension is a doctor's note stating that the student is unfit for coursework throughout the entire 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 excuses after the deadline will be accepted. **The assignments are individual.** Referring to or copying other's answers, directly using someone else's answers (including using previous years' answers) are considered cheating.

There will be 2 exams. Each exam takes 3 hours. You can take the exam in any 3-hour slot during the 2-day exam window (see the course schedule for the exam time and dates). Working, meetings, etc. during the predetermined exam time, are not legitimate 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

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. Family Death. Etc.

This course is asynchronous online, and each quiz/assignment has a wide time window (7 days) for completion; therefore, the [UH absence policy](#) does not apply to quizzes or assignments. Blackouts, traveling, etc. are not legitimate reasons for exempting a quiz/assignment. Learn to manage your time better and do not wait until the last night to complete assignments.

The only exception is when 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.

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

CAREER SUPPORT

If you are a business major curious about how to connect your academic experiences with a career path or job, please see the professionals in the Rockwell Career Center, as they have staff who are experts in the majors, career paths and employers available to Bauer students. Simply go to "Bauer Career Gateway" in AccessUH (<https://accessuh.uh.edu>) to make an appointment or to review current internship and job opportunities. If you are not a business major, University Career Services

has staff who specialize in the other majors on campus who can provide similar services by going to “Cougar Pathways” in AccessUH to make an appointment or review job/internship postings. The services in Cougar Pathways are available to business majors as well.

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.

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.

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](tel:988), or chat 988lifeline.org.

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.

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.

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.

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, Blackboard, and Canvas; 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. Faculty use the CougarNet email to respond to course-related inquiries such as grade queries or progress reports for reasons of FERPA. To access your CougarNet email, [login](#) to your Microsoft 365 account with your CougarNet credentials. Visit [University Information Technology \(UIT\)](#) for instructions on how to connect your CougarNet e-mail on a mobile device.

WEBCAMS

Access to a webcam is required for students participating remotely in this course. Webcams must be turned on during exams to ensure the academic integrity of exam administration.

SECURITY ESCORTS AND COUGAR RIDE

UHPD continually works with the University community to make the campus a safe place to learn, work, and live. The security escort service is designed for the community members who have safety concerns and would like to have a Security Officer walk with them, for their safety, as they make their way across campus. Based on availability either a UHPD Security Officer or Police Officer will escort students, faculty, and staff to locations beginning and ending on campus. If you feel that you need a Security Officer to walk with you for your safety, please call [713-743-3333](tel:713-743-3333). Arrangements may be made for special needs.

Parking and Transportation Services also offers a late-night, on-demand shuttle service called “Cougar Ride” that provides rides to and from all on-campus shuttle stops, as well as the MD Anderson Library, Cougar Village/Moody Towers and the UH Technology Bridge. Rides can be requested through the UH Go app. Days and hours of operation can be found at <https://uh.edu/af-university-services/parking/cougar-ride/>.

SYLLABUS CHANGES

Please note that the instructor may need to make modifications to the course syllabus. Notice of such changes will be announced as quickly as possible through Canvas.

ARTIFICIAL INTELLIGENCE

Turnitin currently has a filter for ChatGPT.

ONLINE EXAMS

Students are permitted to take their online tests or quizzes in a computer lab or other open space. There is no requirement that a student use their own personal computer or that they complete exams and quizzes in any specific location (e.g., their home). An environmental scan may be conducted as a part of an online exam.

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 Wednesday the following week, allowing approximately 7 days for completion. Follow posted due date and time on Canvas.

Week	Week of	Topic	Due
Part 1: Marketing Metrics and Excel			
0		Orientation	
1	Jan 16-19	Course/Excel introduction	
2	Jan 22-26	Data, data, everywhere	Quizzes (2x) + Assign.
3	Jan 29-Feb 2	Does my advertising work?	Quiz + Assignment
Part 2: Customer Analytics			
4	Feb 5-9	Customer profiling	Quiz + Assignment
5	Feb 12-16	Targeting customers	Quiz + Assignment
6	Feb 19-23	Customer lifetime value	Quiz + Assignment
7	Feb 26-Mar 1	Review	Quiz + Assignment
Part 3: Four P's Analytics			
8	Mar 4-8	Mar 5 Tue 12:01 am – Mar 6 Wed 11:59 pm Exam 1 Price optimization	3-hour exam
9	Mar 11-15	Spring break	
10	Mar 18-22	Place: distribution and salesforce optimization	Quiz + Assignment
11	Mar 25-29	Promotion: experiments	Quiz + Assignment
12	Apr 1-5	Predicting customer behavior: regression	Quiz + Assignment
13	Apr 8-12	Product: new product design / conjoint analysis	Quiz + Assignment
14	Apr 15-19	Review	Quiz + Assignment
15	Apr 22-26	Apr 26 Fri 12:01 am – Apr 27 Sat 11:59 pm Exam 2	3-hour exam

Due to size of the class, we are not able to offer individual rescheduling of the exams. Do not register for the class if you cannot take the exams on the scheduled dates.

Teams office hour link (Wednesdays 10am – 12 noon): https://teams.microsoft.com/l/meetup-join/19%3ameeting_OTZjNTQ5Y2ltYWZmMS00YWQ5LWJjMGItZDQxMTBmMjdkZTE%40thread.v2/0?context=%7b%22Tid%22%3a%22170bbabd-a2f0-4c90-ad4b-0e8f0f0c4259%22%2c%22Oid%22%3a%22ac9efe1-8e92-46a4-835f-fc8b257dc715%22%7d

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		Movie theater Sales calls Oil production	