COURSE SYLLABUS: BUAN 6337

Course Information

Course Number/Section	BUAN/MKT 6337
Course Title	Predictive Analytics for Data Science
Term	Summer 2023
Meeting	BUAN6337.SU1.23U Tuesdays 6 – 9:45 p.m. JSOM 1.502

Instructor Team Contact Information

Professor	Dr. Kyle Allison
Email Address	kyle.allison@utdallas.edu
Office Hours	By Appt

Note: Appts for office hours need to be established at least 48-72 hours in advance by reaching out via email.

Course Modality

Instructional Mode	**Traditional Classroom**
Course Platform	• This course in an in-person and there will be NO option to attend the classes online.

Class Materials

The instructor will provide class materials via eLearning that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student Access Ability accommodation. Taking unauthorized pictures or video within the classroom, with your mobile phone or a camera, is an infringement of privacy and copyrights and it is prohibited. Failure to comply with these University requirements is a violation of the Student Code of Conduct, which may result in disciplinary/legal actions by the University.

Course Pre-requisites

OPRE 6301 or OPRE 6359 or BUAN 6359 or SYSM 6303

Course Description

This course is designed to provide students with in-depth knowledge of the analytical techniques frequently used in marketing analytics. Students analyze data from real world datasets to make useful marketing decisions. These econometric methods are commonly employed in online marketing, the retail sector, and financial services. Students will acquire knowledge about the methods and software that are used to understand issues such as who the profitable segments/customers are, how to acquire them, and how to retain them. The tools can also be used to manage brand prices and promotions using grocery scanner data.

Student Learning Objectives/Outcomes

- Students will understand how to discern and analyze relevant data in Marketing Analytics.
- Students will explain and synthesize analytical techniques using SAS that will assist in data management and consumer segmentation.
- Students will be proficient in the evaluation and use of data reduction techniques, response analysis, and customer targeting strategy.

Required Textbook

Predictive Analytics for Business Strategy 1st Edition

- Author(s) Jeff Prince
- Publisher McGraw-Hill Higher Education
- Print ISBN 9781259191510, 1259191516
- eText ISBN 9781259199776, 1259199770
- Edition 1st, 2019
- Textbooks and some other bookstore materials can be ordered online or purchased at the UT Dallas Bookstore

Other Materials

Lecture slides, assignment, solutions, codes, and any additional material will be posted on eLearning website.

Technical Requirements

One of the major learning objectives of the course is to get familiarized with SAS to analyze the real-world data. Thus, the course will rely heavily on the use of SAS, a free statistical software language. Note that the use of Excel or STATA is not allowed for this course, and use of any other programming languages in problem set submissions will require a prior consent from the instructor.

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

Communication/Virtual Participation on eLearning

IMPORTANT: Unless it is related to personal matter, please communicate with the instructor and/or the TA through email. Emails to the instructor or to the TA will be answered within 2 working days under normal circumstances. We typically will not respond to messages or emails over weekends.

Tentative Schedule

Class Date	Topic	Textbook Chapter	Assignment Due
5/30/2023	The Roles of Data and Predictive Analytics in Business	Chapter 1	NA
6/6/2023	Reasoning with Data	Chapter 2	Case Study 1
6/13/2023	Reasoning with Sample to Population	Chapter 3	SAS Activity 1
6/20/2023	Scientific Method and Statistical Inference	Chapter 4	Case Study 2
6/27/2023	Midterm		Midterm in Testing Center
7/4/2023	NO CLASS 4TH OF JULY – BREAK		
7/11/2023	Linear Regression	Chapter 5	NA
7/18/2023	Correlation vs Causality in Regression Analysis	Chapter 6	SAS Activity 2
7/25/2023	Casual Reference in Predictive Analysis	Chapter 7 & 8	Case Study 3
8/1/2023	Identification & Data Assessment	Chapter 10	SAS Activity 3
8/8/2023	Final Exam		Final Exam in Testing Center

Grading Policy

Grading criteria

Case Studies (3)	30%
SAS Activities (3)	30%
Midterm (1)	15%
Final Exam (1)	15%
Attendance	10%

Grade Scale

A, A-, B+, B, B-, C+, C, F

Case Studies (30%)

3 selected case studies will be given to read and conduct an evaluation on various topics of predictive analytics. These case studies will be 3-4 page written scholarly paper reflection showcasing comprehension of the case studies and offering analytical input and insights. Copying from others or from past solutions will be considered cheating. A score of zero will be assigned if it is determined that a student was cheating, which will result in zero scores for the respective homework and considered as a violation of a violation of the Student Code of Conduct.

Further disciplinary actions may also be initiated.

SAS Activities (30%)

3 selected SAS Activities will be given to read and conduct an evaluation on various topics of predictive analytics. These SAS activities will be covered in SAS access per prescribed in the elearning classroom. Copying from others or from past solutions will be considered cheating. A score of zero will be assigned if it is determined that a student was cheating, which will result in zero scores for the respective homework and considered as a violation of a violation of the Student Code of Conduct. Further disciplinary actions may also be initiated.

Exams (40%)

This course will have both a midterm and final exam. These will be conducted in the testing center on campus, proctored. These will be a potential mix of T/F, M/C and/or short essay format. Review the calendar for those targeted dates. Further instruction will be provided in class.

Attendance & Class Participation (10%)
Attendance is taken in each live class. Attendance is worth 10% of the class grade, and each in person class is worth 1%. If you are more than 15 minutes late, you are still considered absent. If you leave early before being dismissed, you will be absent. If you walk out for longer than a reasonable amount of time 10-15 mins, you will be counted absent. Only in the event you have a documented or extenuating circumstance at instructor discretion will an absent be excused with no grade penalty.

Other Course Policies

Extra Credit: I have a strict **no extra credit** policy under **any** circumstances.

Late Work: No extension will be offered. You will get zero point for late assignments.

No food/drinks: **Food/drink is NOT permitted in classroom** except for water, as they may disturb other students. Violation may incur deduction in the class participation scores.

Mobile Phones and Computers in Class:
No use of mobile phones for talking or texting is allowed in the classroom. If you must make a call during class or breaks, please step outside of the classroom.

Exam Score and Problem Set Score Appeal

Students who wish to challenge or question the grade in an exam or other assignments must do so within 7 calendar days from the date that the respective scores are posted in eLearning.

Course Access and Navigation - eLearning

This course can be accessed using your UT Dallas NetID account on the eLearning website. Please see the course access and navigation section of the Getting Started with eLearning webpage for more information. To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage. UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Other Details

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

Academic Support Resources

The information contained in the following link lists the University's academic support resources for all students.

Please go to Academic Support Resources webpage for these policies.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to UT Dallas Syllabus Policies webpage for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.