BA in Management / MBA Program (cross-listed)
Spring 2024
MKTG414 / MKTG514 – Marketing Analytics
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Type	Time	Days	Where
Class	From **3:40 pm** to **6:30 pm**	Wednesdays	TBA

Course Objective:
Understating data has become an inevitable task in Marketing. This course will guide you on how to collect, organize, and analyze marketing data. You will learn how to solve marketing problems using the most appropriate techniques. By completing this course, you will gain the necessary skills to approach marketing data and analytics wisely, so you could make business recommendations and decisions. This course is for you, if you are interested in acquiring the necessary toolkits to kick start your career in a marketing analytics position in a firm, your own startup, or a marketing consulting firm, or even to understand your fellow marketing coworkers when they talk about their insights from data. This will be a hands-on course based on Excel software and R language (background in programming is not required). The course is focused on interpreting the results of some given R codes and students will master Marketing Analytics skills and not programing skills.

Learning Outcomes:
Upon successful completion of the course, the student should be able to:

1. Use key marketing metrics and the basics of marketing analytics.
2. Define the marketing analytics problem.
3. Choose the most appropriate analytics technique to solve the problem.
4. Discuss alternative solutions effectively.
5. Determine/set the best course of action.
6. Demonstrate understanding of data-driven decision modeling.
7. Be able to communicate the marketing analytics project with stakeholders.

Optional Reading Material:

- ***ISLR Book** (Optional)*: James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). An introduction to statistical learning: With Applications in R (Vol. 112, p. 18). New York: Springer.

- ***WW Book** (Optional)*: **W**inston, **W**ayne, Marketing Analytics: Data Driven Techniques with Microsoft Excel, New York: Wiley and Sons, 2014.

List of Cases

Case 1	**Date:**	**Week 3**
	Case:	HBR Case "Portland Trail Blazers"
	Subject:	Conjoint Analysis
	Teamwork:	Yes (in class discussions)
	Grading: (2 components)	• Case Starter Pack (prior to class submission) • In-class discussion
Case 2	**Date:**	**Week 5**
	Case:	HBR Case "Multiple Regression in Marketing Mix Models"
	Subject:	Multiple Regression
	Teamwork:	Yes (in class discussions)
	Grading: (2 components)	• Case Starter Pack (prior to class submission) • In-class discussion
Case 3	**Date:**	**Week 11**
	Case:	HBR Case "Disney+ and Machine Learning in the Streaming Age"
	Subject:	Machine Learning and AI
	Teamwork:	Yes (in class discussions)
	Grading: (2 components)	• Case Starter Pack (prior to class submission) • In-class discussion

Course Web:

All course-related materials (lecture notes, assignments, grades, etc.) will be posted on SUCourse. I will usually post materials on Mondays, Thursdays, and Fridays. So, students are required to check the course web often. I will also create and maintain a cloud folder for convenience.

Sabancı University uses a very powerful web-based tool called Turnitin. Turnitin is the worldwide standard in online plagiarism prevention. It allows instructors to compare student papers against a database composed of millions of articles. Every paper you submit will go through a Turnitin check, and the results will impact your grades.

Instructional Design:

This course will be delivered through in-person lectures. Students must bring their own laptops (sharing is not permitted), and make sure that required software (Excel, R and RStudio) are installed and functional on their laptops.

Grading:

Case Starter Pack and In class Discussion	15% (each 5%)
Individual Assignments	15% (each 5%)
Team Project Presentation 1	15%
Team Project Presentation 2	20%
Final Exam	35%

Requirements:

Each student must contribute to discussions. To do well, students should learn from active participation in presentations and discussions. In the evaluation process, the quality of participation is considered. In particular, I will try to assess how your contributions enhance both the content and process of a discussion by evaluating your comments considering the below points:

- Do your comments add to our understanding of the issues?
  An attempt to get "airtime" is not evaluated as quality participation. The class requires other than frivolous comments that lack substance and serious thinking. You must not have only keep something in mind and say it no matter how irrelevant it is to the ongoing discussion.
- Are your comments timely and linked to the comments of others?
- Do your comments move the discussion along by providing a new perspective?
- Are your comments clear, or obscure?
- Do your comments reflect a concern for maintaining a constructive and comfortable classroom atmosphere?

If you are unable to attend a particular session, please inform me as early as possible. Also, prepare for "cold calls" during class meetings. If you attend but are unprepared to participate in the day's discussions, notify me prior to the beginning of the class to avoid any embarrassment.

I will be taking the role in each class and maintaining class-by-class participation marks and will provide feedback to you during the term.

Individual Assignments

There will be 3 individual assignments during the semester. Students are encouraged to discuss the assignments but are expected to submit their own individual effort in answering questions.

Term Project Presentation 1 and 2 (4 to 5 students per team)

Most of the material presented in this course will serve as a chance for you to work with your fellow teammates. Therefore, a major element of the course is to complete *Term project* in a team setting.

In-class teamwork:

Most of the classes will have something to encourage students working on a set of problems (usually the individual assignments) in their team settings. I believe in learning by getting your hands dirty working and collaborating with your team on a problem. I expect you to actively work and participate while I teach you the steps on how to solve that specific problem. At the end of the day, you need to submit your own individual assignments.

Project Details:

In this course, you will embark on an engaging project that combines CONJOINT Analysis, Segmentation, and Cluster Analysis. Working collaboratively in teams of 3 to 5 members, you'll explore the fascinating world of marketing analysis.

Conjoint analysis, a powerful technique with a rich history in marketing, will be at the core of your project. It stands as a unique tool, capable of validating consumer willingness to pay for a particular product or service. This project will provide you with the opportunity to delve deep into its application.

But that's not all; once you've extracted valuable insights from the conjoint analysis outputs, your journey continues. You'll use these insights to embark on the thrilling journey of Segmentation and Cluster Analysis. Your objective will be to identify distinct segments among your respondents – groups of individuals who share similar tastes regarding the preference toward different attribute levels and are influenced in the same way when making purchase decisions.

Through this multifaceted project, you'll not only gain a deeper understanding of consumer preferences and willingness to pay but also master the art of market segmentation, a skill highly valued in the world of marketing and decision-making. Stay tuned for further project details and get ready to showcase your analytical prowess in unraveling the intricacies of consumer behavior!

Students will present their work on the projects twice (each counting for 15% of their final grade with a total of 30% for the whole term project). The presentations will happen during two weeks of classes (Week 9 for the first presentation and Week 13 for the second one). Every group will be given 10 minutes to present their work. Every group member is expected to present during the presentations. Presentations will be part of your grading. You must submit your PPT slides before coming to the class and you cannot change them during the class.

Final (Exam Week)

Questions in the final exams will come from the materials covered in the class. Before the final exam, in the last week of classes, I will go over some sample questions and will dedicate the time to review the materials and answer your questions. The Final exam will be comprehensive, and school will announce the date. **If your grade for the final exams is below the 35% threshold, you will automatically fail the course with no exceptions.**

Peer Evaluation in Project

Students will be asked to provide an evaluation of the members of their team, for both **the Team Project Presentation 1 and 2.** Each student will divide 100 points between the members of their team, including themselves. This division should reflect that person's judgment of the contribution of the members of their team. The scores should not be merely functions of time spent by each member, but they should be measures of the "contribution;" their relative contribution to the idea generation, research, analysis, writing, oral presentation, report writing, etc. If the team was highly functional, and each member did what they committed themselves to, then the student can assign the same mark to each member of the team. If, on the other hand, some members of the team did not fulfill their commitments and did not contribute as much as the others, then points can be distributed unevenly.

The points submitted by all members of the team will be aggregated by the instructor. Every student will be given their aggregate peer evaluation, without disclosing the individual peer evaluations to the students.

In case there is no consensus among the team, for example, if three students divide the marks evenly and the fourth one divides them unevenly, then the instructor will use their

judgment to assign peer evaluation marks--possibly after meeting with the members of the team.

In cases where there are conflicting marks, it is most likely that the instructor will meet with the team members and provide a mark based on an interview. For example, in a group of four, if Students A and B believe they did most of the work, and Students C and D believe otherwise, the team may be called in for an interview in order to be fair to everyone. Past experience indicates that in most groups points will be distributed evenly. There will be a few groups where peer evaluations will play a role in the marks. The primary goal of this exercise is to avoid giving undeserved credit to individuals who did not help their teams. However, it is possible to have upwards adjustments of marks in case of students who have done more than what the group expected of them.

To give a simple example, if the team grade is 25 out of 30, and if your peer evaluation indicates that your contribution was less than what was expected, then your mark will be less than 25 out of 30. There are no simple rules for adjustment.

Academic Honesty:

Learning is enhanced through cooperation and as such you are encouraged to work in groups, ask for and give help freely in all appropriate settings. At the same time, as a matter of personal integrity, you should only represent your own work as yours. Any work that is submitted to be evaluated in this class should be an original piece of writing, presenting your ideas in your own words. Everything you borrow from books, articles, or web sites (including those in the syllabus) should be properly cited. Although you are encouraged to discuss your ideas with others (including your friends in the class), it is important that you do not share your writing (slides, MS Excel files, reports, etc.) with anyone. Using ideas, text and other intellectual property developed by someone else while claiming it is your original work is *plagiarism*. Copying from others or providing answers or information, written or oral, to others is *cheating*. Unauthorized help from another person or having someone else write one's paper or assignment is *collusion*. Cheating, plagiarism and collusion are serious offenses that could result in an F grade and disciplinary action. Please pay utmost attention to avoid such accusations.

Classroom policies and conduct

Sabancı Programs value participatory learning. Establishing the necessary social order for a participatory learning environment requires that we all:

- Come prepared to make helpful comments and ask questions that facilitate your own understanding and that of your classmates. This requires that you complete the assigned readings for each session before class starts.
- Listen to the person who has the floor.
- **Come to class on time**. Any student who is going to be late for a class needs to inform me at least 1 hour before the class starts. Coming to class any later than 10 minutes late is not acceptable unless you have already informed me.
- I will announce when you are permitted to use your laptop. When the permission is given, it is only to be used for the asked class activities. should not be doing any non-class activities during class time.

ChatGPT and other large language models (LLMs) AI usage policies

I expect you to benefit from AI (e.g., ChatGPT and image generation tools) in this class. In fact, some assignments might steer you toward using it. Learning to use AI is an

emerging skill and I will give examples during our class on how to use it. I am happy to meet and help you with these tools during office hours or arranged meetings.
Be aware of the limits of ChatGPT, such as the following:

- If you provide minimum-effort prompts, you will get low-quality results. You will need to refine your prompts in order to get good outcomes. This will take work.
- Don't trust anything it says. If it gives you a number or fact, assume it is wrong unless you either know the answer or can check with another source. You will be responsible for any errors or omissions provided by the tool. **It works best for topics you understand.**
- AI is a tool, but one that you need to acknowledge using. Please include a paragraph at the end of any assignment that uses AI explaining what you used the AI for and what prompts you used to get the results. Failure to do so is in violation of academic honesty policies.
- Be thoughtful about when this tool is useful. Don't use it if it isn't appropriate for the case or circumstance.
- In cases where you are asked to accomplish an assignment without AI assistance, be advised that your assignment could be tested with AI detecting platforms. Not following assignments guidelines could lead to serious consequences including but not limited to academic misconduct and course failures.

Course Schedule: The schedule presented below is tentative. This schedule and syllabus are subject to change at the instructor's discretion. Additional readings may be provided by the instructor. A list of the books and their respective acronyms are provided in the Optional Reading Material section.

Week 1	
Topic:	Introduction to Marketing Analytics
Readings:	WW Book Chapters 1 and 2; "Models will run the world" Wall Street Journal 2018
Week 2	
Topic:	Excel Pivot Tables and Graphing
Readings:	WW Book Chapters 1, 2; "How Do You Tell a Story with Data Visualization?" Forbes 2019
Week 3	
Topic:	Conjoint Analysis 1 (Results Interpretation) Guest Speaker: Data Scientist from Blend360 in the US
Readings:	WW Book Chapter 16;
Requirements:	*Case 1 Assignment (starter pack)* due before the class. (Portland Trail Blazers)
Week 4	
Topic:	Simple Linear Regression and Correlation
Readings:	WW Book Chapter 9; ISLR Book Chapters 2, 3
Week 5	

Topic:	Using Multiple Regression to Forecast Sales 1
Requirements:	*Case 2 Assignment(starter pack)* due before the class.
Readings:	WW Book Chapter 10; ISLR Book Chapters 2, 3

Week 6

Topic:	Using Multiple Regression to Forecast Sales 2

Week 7

Topic:	Logistic Regression
Readings:	WW Book Chapter 17

Week 8

Topic:	Conjoint Analysis 2 (Methodology and Application)
Readings:	WW Book Chapter 16
Requirements:	*Individual Assignment 1* due before the class;

Week 9

Topic:	**Team Project Presentation 1**
Readings:	WW Book Chapter 23; ISLR Book Chapter 10;

Week 10

Topic:	Segmentation and Cluster Analysis
Requirements:	*Individual Assignment 2* due before the class;

Week 11

Topic:	Web Analytics + Text Analysis 1
Readings:	WW Book Chapter 45; *Case 3 Assignment(starter pack)* due before the class.

Week 12

Topic:	Web Analytics + Text Analysis 2
Readings:	WW Book Chapter 45;

Week 13

Topic:	**Team Project Presentation 2**

Week 14

Topic:	Principal Component Analysis (PCA)
Requirements:	*Individual Assignment 3* due before the class;
Readings:	WW Book Chapter 37