

Course Outline

Course Code : MKT4812
Course Title : Marketing Analytics
Semester : Semester 1, AY 2026/2027
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Overview

In today's data-driven world, firms are inundated with information about their customers. However, this wealth of data does not always translate into better decision-making. Instead, businesses need to know how to collect, analyze, and interpret data appropriately in order to understand the market and generate effective marketing campaigns. This course will introduce you to the essential marketing analysis tools and teach you how to apply these tools to interpret consumer data, generate insights about consumer preferences, and make informed marketing decisions. Throughout the course, you will learn about the critical marketing decisions that businesses make and gain hands-on experience applying various analysis methods to tackle real-world marketing problems.

Course Objectives

This module aims to equip students with analytic mindset in today's world by developing students' theoretical knowledge with practical applications in marketing analytics. This course aims to

- To familiarize you with essential marketing analysis tools widely used by firms to make informed marketing decisions
- To give you hands-on experience applying the analysis tools to solve real-world marketing problems
- To help you understand the pros and cons of the different analytic methods and select the analysis method most appropriate to solve specific marketing problems
- To provide you with the language, concepts, insights, and tools to gain a competitive advantage with marketing in this digital/AI era.

Assessment

Assessment Components	Weightage
[Group] Project Report	15%
- Instructor's evaluation (12%)	
- Peer evaluation (3%)	
[Group] Project Presentation and Q&A	25%
- Instructor's evaluation (25%)	
[Individual] Quiz and Test	40%
- Midterm quiz (10%)	
- Final test (30%)	
[Individual] Class Participation	20%
- In-class discussions (20%)	

General Guide & Reading (e.g. Case preparation guide, project report guide, main textbook & supplementary materials, etc)

1. Reference Textbook: This is recommended for your own reference, but is not required.
“Marketing Analytics- Data-Driven Techniques with Microsoft Excel” by Wayne L. Winston
2. Preparation for the class: Please be ready to bring your laptop for in-class practice. I will sometimes utilize the useful functions of Excel. This is not a coding class, and no preliminary coding experience is required.
3. Readings from the textbook or additional articles/cases can be assigned throughout the course. Additional readings and cases (for presentations and hands-on discussions) will be assigned from academic journals, popular press, and social media throughout the semester. Reading these articles will not only increase your knowledge of Marketing Analytics, but it will also help you understand how different businesses work. They also provide a good insight about managers' challenge in the new era. You are expected to read these articles before every lecture when I assign the articles for the next lecture, and I will start each class by discussing these articles. Over time, we will learn to add our own insight and analysis in these discussions. These article discussions count towards your class participation. Note taking and summarizing while reading these articles will help you in class discussions and exam preparation.

Academic Honesty & Plagiarism

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is ‘the practice of taking someone else's work or ideas and passing them off as one's own' (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubts, you should consult your instructor.

Additional guidance is available at:

- <http://www.nus.edu.sg/registrar/administrative-policies-procedures/acceptance-record#NUSCodeofStudentConduct>
- <http://nus.edu.sg/osa/resources/code-of-student-conduct>

Schedule and Outline

Lesson/ Week	Session (lesson summary or outline / learning objectives / preparation / cases & assignments / follow-up readings & resources)
1	Introduction to Marketing Analytics: Syllabus overview
2	Descriptive Analytics: Survey design and data collection; Using AI vs Excel; Cluster analysis
3	Marketing Experiment: Designing and maximizing effectiveness; Factorial design, before/after experiment
4	Predictive Analytics: Interpreting outputs, multivariable regressions, omitted variable bias
5	Conjoint Analysis, Market Testing Methods
6	Retail Analytics: Application in promotion strategy; exercise for market experimentation; Omni-channel retailing
	Recess
7	Midterm quiz
8	Pricing Analytics: Understanding demand estimation and pricing; Price Elasticity simulation
9	Digital Marketing: Social media marketing, Sentiment analysis; Online customer metrics
10	Using Generative AI on Marketing: Exercise for constructive use
11	Final Presentation (1)
12	Final Presentation (2)
13	Final test