LINGNAN UNIVERSITY
Department of Marketing and International Business
Course Description and Schedule
Second Term, 2023-2024

Course Title:	Marketing Analytics
Course Code:	MKT 3006
Number of credits/Term:	3
Instructor:	Sebastian Yuho Chung (SEK101, yuhochung@ln.edu.hk)
Class Meetings:	Monday (10:30 - 13:30, SEKG03)
Consultation Hours:	Monday 14:30 - 16:30 & Tuesday 14:00 - 16:00 (by appointment)
Prerequisite:	CDS1003 Probability and Statistics 1 or BUS1102 Statistics for Business

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BRIEF COURSE DESCRIPTION:

Marketing is evolving from an art to a science. Many firms collect massive information about consumers' choices and how they react to marketing campaigns, but few firms have the expertise to intelligently act on such information. This course introduces students to state-of- the-art marketing analytics and demonstrates how to practically apply these analytics to real- world business decisions. The purposes of this course are to (1) present various marketing analytics that aid students in interpreting data from various sources, such as customer transactions and social media, (2) introduce some commonly used marketing analytics, such as RFM, Customer Lifetime Value and Sentiment Analysis, and (3) enable students to gain the competency to interact with and manage a marketing analytics team.

AIMS:
This course aims to:
1. Demonstrate to students' how to develop marketing strategies and make resource allocation decisions driven by quantitative analysis;
2. Strengthen students' ability to plan data collection method and apply various analytical methods;
3. Enable students' to conduct market segmentation, customer analytics, brand evaluation, marketing mix models, and retailing analysis;
4. Help students' to draw managerial implications for business applications;
5. Enrich students' understanding of ethical issues in marketing analytics, and
6. Encourage collaboration with other students through group work.

LEARNING OUTCOMES (LOS):

By the end of this course, students will be able to:
1. Learn the scientific approach to marketing with hands-on use of technology such as customer database, analytical tools, and computer systems to collect, manage, and analyze customer information;
2. Develop an understanding of the data available to marketers, its use, and limitations, and be exposed to methods for measuring performance of marketing efforts;
3. Acquire hands-on experience with tools and software that analyze and solve complex marketing problems;
4. Locate, manage, and evaluate marketing information from multiple channels and data sources;
5. Design a data-centric marketing approach that can be integrated with company's marketing mix programmes; and
6. Communicate and coordinate team tasks effectively while working in a team and collaborating with others

INDICATIVE CONTENTS:

1. Introduction to Marketing Concept
   - Understanding Marketing, Strategic Marketing Process
2. The ideas of Marketing Analytics
   - Descriptive, Predictive, and Prescriptive Analytics
3. Brand Analytics
   Brand Management, Brand Architecture, and Brand Valuation Model
4. Customer Analytics
   - Customer lifetime Value, Customer Churn Model
5. Customer Sentiment Analysis
   - Natural Language Processing, Text Mining, Word-of-Mouth Analysis
6. Market Experimentation
   - A/B testing, Determine Cause and Effect through Experiments
7. Market and Customer Segmentation
   - Cluster Analysis, Classification Trees
8. Retailing Analytics
   - Market Basket Analysis, Collaborating Filtering
9. Product Models
   - Conjoint Analysis, Next-Product-To-Buy Model
10. Promotion Models
    - Media Selection Model, Measuring the effectiveness of Advertising
11. Regression Models
    - Generalized Linear Models, Nonlinear Models, and Discrete Choice Models
12. Future of Marketing Analytics (Optional)

TEACHING METHOD:

This course makes use of lecture, discussion, and exercises to learn the materials. Computer workshops and lab sessions are provided to increase students' understanding on how to apply marketing analytical concepts to solve business problems. There are also guest lectures by business analysts and marketing managers. It takes a hand-on approach with real-world databases and equips students with analytical tools that can be used immediately on the job.

ASSESSMENT:

Class Participation	15%
Individual Assignments	25%
Group Project	30%
Final Examination	30%
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Total	100%

MEASUREMENT OF LEARNING OUTCOMES:

	Class Participation	Individual Assignments	Group Project	Final Examination
Learn the scientific approach to marketing with hands-on use of technology (LO1)	✕	✕		✕
Develop an understanding of the data available to marketers, its use, and limitations, and be exposed to methods for measuring performance of marketing efforts (LO2)	✕	✕		✕
Acquire hands-on experience with tools and software that analyze and solve complex marketing problems (LO3)		✕	✕	✕
Locate, manage, and evaluate marketing information from multiple channels and data sources (LO4)		✕	✕	✕
Think critically and design data-centric marketing approach (LO5)			✕	✕
Work in a team and collaborate with others (LO6)			✕	

Class Participation (15%)

This course is intended to be an active learning experience. Students are encouraged to actively participate in each lecture. This includes hands-on in-class exercises and interactive participation. Students who take an active part in group discussions or clear leadership in team work also add to participation marks. Several in-class exercises throughout the course are to give students practice in applying marketing analytics tools to the solution of real-world marketing problems. Students lose participation marks for low attendance, continuing lateness, disturbing behaviour, etc. However, high attendance does not mean a high participation mark.

Individual Assignment (25%)

Students need to develop their own competence in dealing with the subject matter of this course. The individual assignments assess student's understandings the practical aspects of class materials. Although students are encouraged to discuss the assignments with their classmates, students need to submit their own work and are not allowed to duplicate other's work. The due dates of these assignments will be specified when distributed. As we will discuss the assignments in class, **late submissions will not be accepted**. Please make alternative arrangements to submit your assignment if you are unable to attend the class. Also note that assignments need to be prepared individually – any plagiarism detected will result in an automatic failure.

Group Project and Presentation (30%)

Each group will complete a team project, which has to be presented in class. The team project will be graded based on the quality of the oral presentation and the written materials. Team members will also rate each other's contribution to the project (as shown in Appendix 5). At the end of the project, students should have a deep understanding of the effort required to analyze a marketing problem through sophisticated analytical tools. The instructor will meet individually with each team to discuss their team project.

You will be marked on the following:
1. Project Presentation
A group needs to make a professional **20-minute presentation** outlining its analysis and providing the reasons for its choice. **Overlong** presentations will be **penalized**. Each group member should speak. Formal dressing is preferred. Please be on time for your presentation and make sure equipment is working well before your presentation begins. You should not read out the whole project report, concentrate on a few areas or examples which the class may find interesting and maybe can discuss. You **will not be penalized** for not covering all the areas of the report in your presentation, rather you will be **rewarded** for making an interesting and professional presentation complete with appropriate examples.

2. Report
In your report let me know of other ideas that you came up with for collecting data, utilizing analytical tools of your chosen problems. Reports should have **sections on introduction, methodology, findings, recommendations, conclusions, etc.** It should be double-spaced in 12-point font, with 2.5cm margins on four sides, and should be within 12 pages (excluding cover page, content page, references, and appendices).

Final Examination (30%)
The Final Examination will cover everything that has been included in the course. It is normally in short and long questions format, requiring students to answer questions from a variety of issues related to the course.

REQUIRED/ESSENTIAL READINGS:
  1. Hair, Joseph, Dana E. Harrison and Haya Ajjan (2022), Essentials of Marketing Analytics, McGraw Hill.
     https://apbookshop.com/LNU/EN/Display/PrintedBook?ISBN=9781260597745

     This is an accessible text of around the right depth, which focus on the data science concepts and applications in marketing. However, knowledge seeking cannot be restricted to only one text book. Students are advised to explore and study other related reading materials in an adequate manner.

RECOMMENDED/SUPPLEMENTARY READINGS:
  1. Winston, Wayne L. *Marketing Analytics: Data-Driven Techniques with Microsoft Excel*. Indianapolis, IN: John Wiley & Sons, 2014.
  2. Lilien, Gary L., Arvind Rangaswamy, and Arnaud de Bruyn (2017), Principles of Marketing Engineering and Analytics, 3rd edition, DecisionPro, Inc.
  3. Venkatesan, Rajkumar, Paul Farris, and Ronald T. Wilcox. *Cutting-edge Marketing Analytics: Real World Cases and Data Sets for Hands On Learning*. Pearson Education, 2014.

IMPORTANT NOTES:

1. Students are expected to spend a total of 9 hours (i.e. 3* hours of class contact and 6* hours of personal study) per week to achieve the course learning outcomes.
2. Students shall be aware of the University regulations about dishonest practice in course work, tests and examinations, and the possible consequences as stipulated in the Regulations Governing University Examinations. In particular, plagiarism, being a kind of dishonest practice, is "the presentation of another person's work without proper acknowledgement of the source, including exact phrases, or summarized ideas, or even footnotes/citations, whether protected by copyright or not, as the student's own work". Students are required to strictly follow university regulations governing academic integrity and honesty.
3. Students are required to submit writing assignment(s) using Turnitin.
4. To enhance students' understanding of plagiarism, a mini-course "Online Tutorial on Plagiarism Awareness" is available on https://pla.ln.edu.hk/.

Appendix.

MKT3006 Marketing Analytics – Team Evaluation Form

Student's Name: _____ Instructor: _____

Assume that you have $100 to divide among the members of your team (including yourself) based on each member's overall contribution to the project. The team member whose contribution was the greatest should receive the largest share of the $100. The member whose overall contribution was smallest would receive the smallest amount. In the space below, please write the names of your team members - *including yourself* - and the dollars you feel they deserve:

Name   Group Project

_____   _____

_____   _____

_____   _____

_____   _____

_____   _____

                                            TOTAL   **$100**

Overall, use the following space to write a few sentences explaining the major strengths of the strongest member of your team and the major weaknesses of the weakest member of your team (*excluding yourself*):

Strongest member's name: _____
Comments:_____
_____
_____
_____

Weakest member's name: _____
Comments:_____
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_____
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