Course Outline

Course Code   : MKT4761J
Course Title   : SIM: AI in Marketing
Semester   : Semester 1, AY 2025/2026
Faculty   : Mr Alvin Tan
Department   : Marketing
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Overview

In today's AI-driven world, using AI in marketing has become essential for businesses to stay competitive. Success hinges on enhancing the marketing team's analytical skills to utilize AI for data-driven insights, as well as on the creative use of AI for content creation to connect with customers.

This course offers a practical guide to empower marketers to use AI in marketing by exploring use cases and applying a no-code approach to machine learning through visual programming. You will engage in interactive discussions and hands-on labs to build your confidence in using AI in marketing.

Course Objectives
At the end of this course, students should be able to:
1. Explain core AI concepts, including machine learning and generative AI.
2. Identify tools and techniques for AI-driven marketing solutions.
3. Evaluate the use of AI in marketing, including its risks and limitations.
4. Build machine learning solutions for marketing using visual programming.

This course employs a no-code approach to help you gain the confidence to explore AI concepts and evaluate the applications of AI in marketing. Through the use of no-code AI tools in hands-on projects, this course serves as a stepping stone for you to dive into the evolving field of AI for business in the digital economy.

General Guide & Reading
This course adopts selected frameworks from the recommended textbook. You are not required to purchase it for this course. Suggested readings will be provided to enhance your understanding of the topics covered.

Recommended Textbooks
- Roetzer, P., & Kaput, M. (2022). *Marketing artificial intelligence: AI, Marketing, and the Future of Business*. BenBella Books.

Assessment

Assessment Components	Weightage
Class Participation	20%
Discussion Board	20%
Individual Assignment	20%
Group Project	40%

Learning Community & Study Group

This course places an emphasis on leveraging the diverse experiences and perspectives of all students to enrich the learning experience and foster a learning community. You will form your own study groups to collaborate on in-class learning activities and the group project.

Assessment Outline

- **Class Participation:** You can contribute to the learning community through in-class group activities including case studies, open forum and lesson reflections.
- **Discussion Board:** The discussion board is an individual activity where you will evaluate real-world use cases and engage in discussions with your peers through an online forum.
- **Individual Assignment:** You will build a machine learning solution to solve a marketing problem using visual programming and reflect on your project experience.
- **Group Project:** You will propose and present a machine learning solution for a marketing use case using the CRISP-DM methodology.

Academic Honesty & Plagiarism

Academic integrity and honesty are 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

Week	Topic	Assessment
1	**T1: Introduction to AI in Marketing** • Course Overview • Artificial Intelligence Primer	
2	**T2: AI Trends in Marketing** • AI-Generated Influencers and AI Agents • Lab 1: Introduction to KNIME Analytics Platform	
3	**T3: Machine Learning for Marketing** • Machine Learning for Marketing • [Case] Disney+ and Machine Learning in the Streaming Age	**Class Participation** Weeks 3-11 **Discussion Board** Weeks 3-6
4	**T4: CRISP-DM and Business Understanding** • CRISP-DM for Machine Learning • Persona and User Journey Map	
5	**T5: Data Understanding** • Data and Metadata Table • Lab 2.1: Customer Transaction Analysis (I)	
6	**T6: Data Preparation** • Exploratory Data Analysis • Lab 2.2: Customer Transaction Analysis (II)	
Recess Week		
7	**T10: Path to AI-Powered Marketer** • Marketing in the Age of AI • Fireside Chat with Guest Speaker/s (Open Forum) **Group Project (Phase 1)** • Client Problem Scenario • Agency-Client Briefing	**Individual Assignment** Weeks 7-10 **Group Project** Weeks 7-13
8	**T7: Classification** • Classification Model with Decision Tree Algorithm Lab 3.1: Classification of Membership Status	
9	**T8: Regression** • Regression Model with Linear Regression Algorithm • Lab 3.2: Regression to Predict Total Spending	
10	**NUS Well-Being Day**	
11	**T9: GenAI for Marketers** • GenAI for Marketing • [Case] Timperio Experiments with GenAI in Advertising	
12	**Group Project (Phase 2)** • Client Presentation	
13	• Agency Evaluation	