MKT3608: MARKETING INTELLIGENCE AND APPLICATIONS OF ANALYTICS

Effective Term
Semester B 2025/26

Part I Course Overview

Course Title
Marketing Intelligence and Applications of Analytics

Subject Code
MKT - Marketing
Course Number
3608

Academic Unit
Marketing (MKT)

College/School
College of Business (CB)

Course Duration
One Semester

Credit Units
3

Level
B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
CB2601 Marketing

Precursors
CB2200 Business Statistics
CB2203 Data-driven Business Modeling
CB2240 Introduction to Business Programming in Python

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract

This course equips students with the skills to systematically solve marketing problems through analytics. Students will learn to structure marketing challenges by selecting appropriate quantitative models that align with available data and defined business objectives. The course introduces a diverse range of mathematical and statistical methods for analyzing marketing data using software tools. Additionally, students will develop the ability to translate technical analyses into actionable business decisions and communicate them effectively in a business context. The overarching goal is to enhance students' capabilities in extracting value from data to improve decision-making in marketing.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Analyze marketing problems using appropriate quantitative models and software tools, demonstrating the ability to match analytical techniques with business objectives and available data.			x	
2	Apply advanced statistical and mathematical methods to extract insights from marketing data.			x	
3	Translate complex analytical findings into actionable business recommendations, effectively communicating results in a business context.			x	
4	Evaluate the potential applications of emerging technologies in solving marketing challenges and enhancing decision-making processes.		x		
5	Create a comprehensive marketing analytics project that addresses a real-world business problem, demonstrating proficiency in data analysis, strategic thinking, and collaborative problem-solving.				x

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures	Description: Students will engage in interactive lectures where fundamental theories, quantitative models, and modern practices in marketing analytics are discussed.	1, 2, 3, 4	
2	Hands-on Data Analysis Workshops	In computer lab sessions, students will participate in hands-on workshops using software tools to conduct various data analyses. These sessions will help in applying theoretical knowledge to practical datasets, improving analytical skills and proficiency with marketing analytics tools.	1, 2, 3	
3	Case Study Analysis	Students will analyze case studies throughout the course to identify marketing problems, apply appropriate analytical models, and propose data-driven solutions. This activity will enhance the ability to apply learned concepts in realistic scenarios and develop critical thinking skills.	3, 4, 5	
4	Strategy Development Workshops	Students will develop marketing strategies based on outcomes from data analysis. These activities will focus on translating analytical insights into actionable business recommendations.	2, 3, 4	

5	Collaborative Project Work	Students will work collaboratively in groups on their marketing analytics project throughout the course. This project will promote teamwork, application of comprehensive marketing analytics skills, and effective communication of complex analytical findings.	1, 2, 3, 4, 5	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Individual Assignments Students will complete a series of individual assignments involving practical data analysis using various software tools. These assignments will test students' ability to apply marketing analytics tools and models to solve specific problems, analyze data, and make informed decisions based on their analyses.	1, 2, 3	30	-	No

2	Group Project In groups, students will tackle a real-world marketing problem by applying the analytical techniques learned throughout the course. This project will encompass data collection, analysis, and the formulation of marketing strategies. The project will culminate in a detailed report and a presentation, assessing students' ability to collaborate, synthesize analytical findings, and communicate them effectively.	1, 2, 3, 4, 5	30	-	Yes
3	Class Discussion Students will be evaluated on their ability to critically engage with the course material, demonstrate understanding, and contribute insights during class discussions. This assessment will focus on students' grasp of marketing analytics' role in decision-making and strategy formulation.	1, 3, 4	10	-	No

Continuous Assessment (%)

70

Examination (%)

30

Examination Duration (Hours)

2

Additional Information for ATs

Regulation of the course 1. Students need to meet the attendance requirement of the Dept. of Marketing for the completion of the course. 2. Students are required to pass BOTH coursework and examination components in order to be awarded a pass. 3. Students' final grades are subject to the Assessment Panel or its delegate's final decision.

Assessment Rubrics (AR)

Assessment Task

Individual Assignments

Criterion

1. Integrate quantitative models and analytical techniques to solve marketing problems.
2. Apply appropriate software tools to analyze marketing data effectively.
3. Interpret analytical results and translate them into actionable business insights.

Excellent (A+, A, A-)

1. Demonstrates superior integration of models and techniques
2. Applies software tools with excellent proficiency
3. Provides outstanding interpretation and actionable insights

Good (B+, B, B-)

1. Shows good integration of models and techniques
2. Applies software tools competently
3. Offers good interpretation and actionable insights

Fair (C+, C, C-)

1. Demonstrates acceptable integration of models and techniques
2. Applies software tools adequately
3. Provides acceptable interpretation and insights

Marginal (D)

1. Shows limited integration of models and techniques
2. Applies software tools with minimal competence
3. Offers marginal interpretation and insights

Failure (F)

1. Fails to integrate models and techniques
2. Fails to apply software tools effectively
3. Fails to provide meaningful interpretation or insights

Assessment Task

Group Project

Criterion

1. Analyze a real-world marketing problem using appropriate analytical techniques.
2. Apply advanced statistical and mathematical methods to extract insights from marketing data.
3. Synthesize findings to develop comprehensive marketing strategies.
4. Communicate complex analytical results effectively in both written and oral formats.
5. Demonstrate collaborative problem-solving and teamwork skills.

Excellent (A+, A, A-)

1. Conducts excellent analysis of the marketing problem
2. Applies advanced methods with outstanding proficiency
3. Synthesizes findings into highly effective strategies

4. Communicates results with exceptional clarity and impact
5. Demonstrates superior collaboration and teamwork

Good (B+, B, B-)

1. Conducts good analysis of the marketing problem
2. Applies advanced methods competently
3. Synthesizes findings into effective strategies
4. Communicates results clearly and effectively
5. Demonstrates good collaboration and teamwork

Fair (C+, C, C-)

1. Conducts adequate analysis of the marketing problem
2. Applies advanced methods acceptably
3. Synthesizes findings into reasonable strategies
4. Communicates results with acceptable clarity
5. Demonstrates acceptable collaboration and teamwork

Marginal (D)

1. Conducts limited analysis of the marketing problem
2. Applies advanced methods with minimal competence
3. Synthesizes findings into marginally effective strategies
4. Communicates results with limited clarity
5. Demonstrates minimal collaboration and teamwork

Failure (F)

1. Fails to analyze the marketing problem effectively
2. Fails to apply advanced methods correctly
3. Fails to synthesize findings into coherent strategies
4. Fails to communicate results clearly
5. Fails to demonstrate effective collaboration and teamwork

Assessment Task

Class Discussion

Criterion

1. Engage critically with course material during class discussions.
2. Contribute insightful ideas and questions related to marketing analytics and its business applications.

Excellent (A+, A, A-)

1. Engages with superior critical thinking and depth
2. Contributes highly insightful ideas and questions proactively

Good (B+, B, B-)

1. Engages with good critical thinking and understanding
2. Contributes valuable ideas and questions regularly

Fair (C+, C, C-)

1. Engages with acceptable critical thinking
2. Contributes occasional ideas and questions

Marginal (D)

1. Engages with limited critical thinking
2. Contributes minimal ideas or questions

Failure (F)

1. Fails to engage critically with course material
2. Fails to contribute meaningful ideas or questions

Assessment Task

Examination

Criterion

1. Demonstrate comprehensive understanding of marketing analytics concepts and theories.
2. Apply quantitative models and analytical techniques to solve complex marketing problems.
3. Evaluate the potential of emerging technologies in marketing analytics.
4. Formulate data-driven marketing strategies based on analytical insights.

Excellent (A+, A, A-)

1. Demonstrates superior comprehensive understanding
2. Applies models and techniques with excellent proficiency
3. Evaluates emerging technologies with outstanding insight
4. Formulates highly effective data-driven strategies

Good (B+, B, B-)

1. Demonstrates good comprehensive understanding
2. Applies models and techniques competently
3. Evaluates emerging technologies with good insight
4. Formulates effective data-driven strategies

Fair (C+, C, C-)

1. Demonstrates acceptable understanding
2. Applies models and techniques adequately
3. Evaluates emerging technologies with some insight
4. Formulates reasonable data-driven strategies

Marginal (D)

1. Demonstrates limited understanding
2. Applies models and techniques with minimal competence
3. Evaluates emerging technologies with limited insight
4. Formulates marginally effective strategies

Failure (F)

1. Fails to demonstrate understanding of key concepts
2. Fails to apply models and techniques correctly
3. Fails to evaluate emerging technologies meaningfully
4. Fails to formulate coherent data-driven strategies

Part III Other Information

Keyword Syllabus

Marketing Intelligence, Marketing Analytics, Customer Analytics, Quantitative Modeling, Data Analysis, Statistical Methods, Predictive Analytics, Customer Segmentation, Targeting Strategies, Positioning Analysis, Regression Analysis, Forecasting Models, Data-Driven Decision Making, Marketing Strategy Development, Business Intelligence Tools, Customer Behavior Analysis, Marketing Performance Metrics

Reading List

Additional Readings

	Title
1	Lilien, G. L., Rangaswamy, A., & De Bruyn, A. (2017). Principles of marketing engineering and analytics.
2	Venkatesan, R., Farris, P. W., & Wilcox, R. T. (2021). Marketing Analytics: Essential Tools for Data-driven Decisions.
3	Knaflic, C. N. (2015). Storytelling with data: A data visualization guide for business professionals.
4	Jeffery, M. (2010). Data-driven marketing: the 15 metrics everyone in marketing should know.
5	Grigsby, M. (2018). Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques.
6	Albright, S. C., & Winston, W. L. (2016). Business Analytics: Data Analysis & Decision Making.
7	Winston, W. L. (2021). Analytics Stories: Using Data to Make Good Things Happen.
8	Winston, W. L. (2014). Marketing analytics: Data-driven techniques with Microsoft Excel.
9	Hwang, Y. H. (2019). Hands-On Data Science for Marketing: Improve your marketing strategies with machine learning using Python and R.
10	Schwarz, J. S., Chapman, C., & Feit, E. M. (2020). Python for marketing research and analytics.
11	Baig, M. R., Govindan G., & Shrimali V. R. (2021). Data Science for Marketing Analytics: A practical guide to forming a killer marketing strategy through data analysis with Python.