JINDAL GLOBAL BUSINESS SCHOOL
INDIA'S FIRST MULTI-DISCIPLINARY GLOBAL BUSINESS SCHOOL

O.P. Jindal Global University
A Private University Promoting Public Service
NAAC Accreditation - 'A' Grade

Jindal Global Business School
Course Outline

Course Title	Marketing Analytics
Course Code	BS-MKT-4507
Core or Elective	Elective
Program and Batch	BBA-2023, BBA-BA-2023, BBA-FB-2023, BBA-FM-2023
Semester & Academic Year	Fall 2026
Credits	3
Discipline/Area	Marketing
Provide details if this course is a Prerequisite for any course/specialization	None
Name of the Faculty Member/Course Instructor	Prof Roopendra Roopak
Contact Details of the Faculty Member	roopendra.roopak@jgu.edu.in
Contact Details of Support Staff	jgbs-eo@jgu.edu.in
Faculty Member's Open Office Day/s & Time	TBD

Introduction to the Course

This course introduces students to the fundamentals and applications of marketing analytics with a strong focus on data-driven decision-making in real-world business contexts. Designed as an applied elective, the course emphasizes how marketing managers can use data, analytical tools, and quantitative models to solve practical problems related to pricing, demand estimation, customer value, and marketing effectiveness.

The course begins with foundational skills in data handling, summarization, and visualization using spreadsheet tools, and gradually progresses to analytical techniques such as regression, forecasting, and simulation. Students will explore key marketing applications including pricing optimization, customer lifetime value, market segmentation, advertising effectiveness, and digital marketing analytics.

A distinctive feature of the course is its hands-on orientation—students will actively work with data using tools like Excel, apply models to real-world scenarios, and participate in applied learning sessions designed to simulate managerial decision-making environments. Advanced topics such as conjoint analysis, choice modeling, Monte Carlo simulation, and new product forecasting (including diffusion models) will further strengthen analytical thinking.

By the end of the course, students will be able to interpret data, build and apply analytical models, and translate insights into actionable marketing strategies. The course also prepares students to think critically about the limitations of data and models in dynamic and uncertain market environments.

Course Learning Objectives

By the end of the course, participants would be able to:

CLO1: Develop an understanding of key concepts, frameworks, and quantitative models used in marketing analytics.
CLO2: Identify and structure marketing problems into analytical questions across exploratory, descriptive, and predictive contexts.
CLO3: Apply appropriate analytical techniques using spreadsheet-based tools (e.g., Excel) to analyze data and support marketing decisions.
CLO4: Interpret analytical results and translate them into clear, actionable, and managerially relevant marketing recommendations.

Programme Competency Goals

BBA Programme Competency Goals (PCGs)		**BBA Programme Learning Objectives (PLOs)**
		Students will be able to
1	**Responsible Global Citizenship:** Ability to understand the interplay between local and global issues and to act with sensitivity towards ethical and social issues	1. Understand local business issues
		2. Understand global business issues
		3. Demonstrate sensitivity towards ethical issues
		4. Demonstrate sensitivity towards social issues
2	**Effective communication:** Ability to effectively exchange ideas and information	5. Present their ideas with clarity
		6. Write in a coherent manner
		7. Use technology for communication
3	**Critical Thinking:** Ability to identify, analyze business problems and propose effective solutions	8. Identify main issues of business problems
		9. Examine information from different sources
		10. Draw inferences from analysis
4	**Teamwork:** Ability to work and contribute effectively in group -settings	11. Understand the factors to work effectively in groups
		12. Contribute effectively in groups

PLO-PCG Assessments Mapping Matrix

Program Learning Objectives (PLOs)	**Program Competency Goals (PCGs)**	**Course Assessment Item**
This course helps you to develop the following Program Learning Outcomes:	This course helps you to develop the following Program Competency Goals:	This learning outcome will be assessed in the following items
PLO1, PLO2, PLO3, PLO4	PCG1	A1, A2, A3, A4
PLO5, PLO6, PLO7	PCG2	A1, A2, A4

PLO8, PLO9, PLO10	PCG3	A1, A2, A3, A4
PLO11, PLO12	PCG4	A4

Evaluation Schema
The course grade will be determined based on:

Assessment Task	Weightage (Percentage)	Nature (Individual/Group)	Week of Assessment	PLOs to be Assessed
A1: Class Participation	10%	Individual	Continuous	PLO5, PLO8, PLO9
A2: Continuous Evaluation (In-class + Assignments)	50%	Individual	Ongoing (Weeks 2–11)	PLO7, PLO8, PLO9, PLO10
A3: Quizzes	15%	Individual	Weeks 4, 8, 12	PLO8, PLO9, PLO10
A4: Final Group Project	25%	Group	Weeks 12–13	PLO5, PLO6, PLO7, PLO10, PLO11, PLO12

Description of Assessments:
A1: Class Participation (10%)
Active participation in class discussions, problem-solving exercises, and case-based interactions. Students are expected to contribute meaningfully by asking relevant questions, sharing insights, and engaging with analytical concepts discussed in class. Emphasis is placed on clarity of thought, critical engagement with problems, and the ability to interpret information during discussions.

A2: Applied Learning Sessions (30%)
This component focuses on the continuous application of concepts through in-class exercises and individual assignments. Students will work on data analysis tasks, Excel-based problem-solving, and short analytical submissions. The objective is to assess the ability to use analytical tools, examine data from multiple sources, identify key business problems, and derive meaningful insights. This component emphasizes hands-on learning and consistent skill development throughout the course.

A3: Quizzes (25%)
Three quizzes will be conducted to evaluate students' understanding of core concepts and analytical techniques in marketing analytics. The quizzes may include a mix of objective and analytical questions, covering topics such as data analysis, regression, forecasting, and marketing decision-making. These assessments ensure conceptual clarity and reinforce learning across different stages of the course.

A4: Group Project (20%)
Students will work in groups to analyze a real-world or simulated marketing analytics problem using the tools and techniques covered in the course. The project involves problem identification, data analysis, and development of actionable recommendations. Students are expected to apply analytical thinking, use

appropriate tools, and generate insights relevant to managerial decision-making. The project topic and guidelines will be shared around Week 6–7.

Assessment Rubrics:

A1: Class Participation (10%)

Criteria	Excellent (4)	Good (3)	Basic (2)	Poor (1)
Engagement	Consistently active; initiates discussion	Participates regularly	Occasional participation	Rarely participates
Quality of Contribution	Insightful, analytical, relevant	Relevant but limited depth	Basic comments	Irrelevant/minimal
Critical Thinking	Connects ideas, asks strong questions	Some analytical input	Limited analysis	No analytical input
Communication	Clear, structured articulation	Mostly clear	Some lack of clarity	Unclear/incoherent

A2: Continuous Evaluation (50%) *(In-class exercises + assignments)*

Criteria	Excellent (4)	Good (3)	Basic (2)	Poor (1)
Problem Identification	Clearly defines problem with strong logic	Mostly clear problem	Partially defined	Poor/unclear
Data Analysis (Excel/Tools)	Accurate, well-structured, appropriate methods	Minor errors	Basic application	Incorrect/incomplete
Interpretation of Results	Deep insights, strong linkage to problem	Reasonable interpretation	Surface-level insights	Misinterpretation
Application to Decision-Making	Clear, actionable recommendations	Some linkage to decisions	Weak recommendations	No clear application
Completeness & Timeliness	Fully complete, on time	Minor gaps	Incomplete sections	Late/incomplete

A3: Quizzes (15%)

Criteria	Excellent (4)	Good (3)	Basic (2)	Poor (1)
Conceptual Understanding	Strong grasp of concepts	Good understanding	Basic understanding	Poor understanding
Analytical Ability	Applies concepts correctly	Minor mistakes	Limited application	Incorrect application
Accuracy	Highly accurate	Few errors	Several errors	Mostly incorrect

A4: Final Group Project (25%)

Criteria	Excellent (4)	Good (3)	Basic (2)	Poor (1)
Problem Framing	Clear, relevant, well-structured	Mostly clear	Some ambiguity	Poorly defined
Data Analysis	Advanced, accurate, well-executed	Good with minor issues	Basic analysis	Weak/incorrect
Insight Generation	Deep, meaningful insights	Reasonable insights	Limited insights	No real insights
Recommendations	Actionable, realistic, well-	Somewhat actionable	Weak linkage	Not actionable

	justified			
Communication (Report/Presentation)	Clear, structured, professional	Mostly clear	Some gaps	Poor clarity
Team Contribution	Strong collaboration evident	Good teamwork	Uneven contribution	Poor coordination

Teaching Method

The course will have a judicious mix of lectures, applied learning exercises and in-class problem-solving, computer-based assignments. Here the onus of learning will be with the student, and the instructor will be a facilitator. Students will be asked to apply their classroom learnings to real-world business scenarios through business cases and problem sets.

Textbook / Course Package / Other Readings

Prescribed Textbook:

- Winston, W. L. (2014). Marketing analytics: Data-driven techniques with Microsoft Excel. John Wiley & Sons.

Additional Readings:

- Lilien, G. L., Rangaswamy, A., & De Bruyn, A., Principles of Marketing Engineering and Analytics (3rd edition). DecisionPro.
- Sorger, S. (2013). Marketing Analytics: Strategic Models and Metrics. Admiral Press (MA).
- Yoon Hyup Hwang (2019). Hands-on Data Science for Marketing: Improve your marketing strategies with machine learning using Python and R. Packt Publishing.

Guest Lecture:

S. No.	Faculty member(s)	Guest Speakers [Name, designation, and company]	Week # (Tentative)
1	Prof Roopendra Roopak	Amit Tripathy, Founder, MrFixPro	7
2		Mr Balaji Gopalan, Global Head, Cloud & Data, Sojeti (a Capgemini Company)	12

Session Plan

Session Details	Details	CLOs covered
Session 1	**Introduction to Marketing Analytics**	PLO8, PL09
Objective of the session	Introduce the course and basic concepts of marketing analytics.	
Subtopics to be covered	Overview of marketing analytics, importance, and applications.	
Readings	None	

Case Title & Number	None	
Pedagogy	Lecture and class discussion.	
Session 2	**Data Summarization with PivotTables**	PLO7, PLO9
Objective of the session	Learn to summarize and analyze data using PivotTables.	
Subtopics to be covered	Creating PivotTables, filtering, and summarizing data.	
Readings	Part I, Chapter 1, Chapter 2	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 3	**Enhancing Analysis with Excel Charts & Functions**	PLO7, PLO9
Objective of the session	Use Excel functions to enhance data analysis.	
Subtopics to be covered	Common Excel functions for data analysis.	
Readings	Part I, Chapter 2, Chapter 3	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 4	**Pricing Optimization Techniques**	PLO8, PLO9, PLO10
Objective of the session	Understand demand curves and price optimization.	
Subtopics to be covered	Demand curve estimation, using Solver for price optimization.	
Readings	Part II, Chapter 4	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 5	**Price Bundling and Nonlinear Pricing**	PLO8, PLO9, PLO10
Objective of the session	Understand and apply price bundling and nonlinear pricing strategies to optimize revenue.	
Subtopics to be covered	Techniques for price bundling, Nonlinear Pricing	
Readings	Chapters 5 & 6	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	

Session 6	**Price skimming and sales and Revenue Management**	PLO8, PLO9, PLO10
Objective of the session	Learn and apply price skimming strategies, understand their impact on sales, and explore revenue management techniques for optimizing pricing and maximizing revenue.	
Subtopics to be covered	Price Skimming, impact on sales, Introduction to Revenue Management	
Readings	Chapters 7 & 8	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 7	**Applied Learning Session I: Data Analysis and Forecasting**	PLO7, PLO9, PLO10, PLO12
Objective of the session	Applied Learning Session	
Subtopics to be covered	Practical exercises on data analysis and forecasting.	
Readings	Review relevant parts.	
Case Title & Number	None	
Pedagogy	Hands-on data analysis and group activities.	
Session 8	**Regression and Correlation in Forecasting**	PLO9, PLO10
Objective of the session	Introduction to regression and correlation for forecasting.	
Subtopics to be covered	Basics of linear regression, correlation analysis.	
Readings	Part III, Chapter 9	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 9	**Modeling Trends and Seasonality**	PLO9, PLO10
Objective of the session	Apply trend and seasonality models in forecasting.	
Subtopics to be covered	Techniques for modeling trend and seasonality.	
Readings	Part III, Chapter 12	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 10	**Quiz 1 and Conjoint Analysis**	PLO8, PLO9, PLO10
Objective of the session	Assess understanding and reinforce learning.	

Subtopics to be covered	Topics covered in Sessions 1-8; Conjoint Analysis.	
Readings	Review relevant parts; Part IV, Chapter 16	
Case Title & Number	None	
Pedagogy	Quiz (15-20 mins) followed by lecture on Conjoint Analysis.	
Session 11	**Logistic Regression and Choice Analysis**	PLO9, PLO10
Objective of the session	Explore logistic regression and discrete choice analysis.	
Subtopics to be covered	Logistic regression basics, discrete choice analysis techniques.	
Readings	Part IV, Chapters 17 & 18	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 12	**Applied Learning Session II: Advanced Data Analysis**	PLO7, PLO9, PLO10, PLO12
Objective of the session	Continue practical application of marketing analytics concepts.	
Subtopics to be covered	Advanced data analysis techniques.	
Readings	Review relevant parts.	
Case Title & Number	None	
Pedagogy	Hands-on data analysis and group activities.	
Session 13	**Guest Lecture: Industry Insights**	PLO5, PLO8
Objective of the session	Gain insights from an industry expert.	
Subtopics to be covered	Relevant to marketing analytics.	
Readings	None	
Case Title & Number	None	
Pedagogy	Guest lecture and Q&A.	
Session 14	**Customer Lifetime Value Analysis**	PLO8, PLO9, PLO10
Objective of the session	Learn to calculate and utilize customer lifetime value.	
Subtopics to be covered	Methods for calculating customer lifetime value.	
Readings	Part V, Chapter 19 & 20	

Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 15	**Monte Carlo Simulation for Marketing Decisions**	PLO9, PLO10
Objective of the session	Apply Monte Carlo simulation to customer value and decision making.	
Subtopics to be covered	Monte Carlo simulation techniques, decision-making processes.	
Readings	Part V, Chapter 21	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application and simulation exercise.	
Session 16	**Market Segmentation with Cluster Analysis**	PLO8, PLO9, PLO10
Objective of the session	Use cluster analysis for segmenting markets.	
Subtopics to be covered	Techniques and applications of cluster analysis.	
Readings	Part VI, Chapter 23	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 17	**Applied Learning Session III: Data-Driven Decision Making**	PLO7, PLO9, PLO10, PLO12
Objective of the session	Implement data-driven decision-making strategies.	
Subtopics to be covered	Real-world case studies and data interpretation.	
Readings	Review relevant parts.	
Case Title & Number	None	
Pedagogy	Hands-on data analysis and group activities.	
Session 18	**Forecasting with S Curves**	PLO9, PLO10
Objective of the session	Understand and apply S curves for new product sales forecasting.	
Subtopics to be covered	Application of S curves in sales forecasting.	
Readings	Part VII, Chapter 26	
Case Title & Number	None	
Pedagogy	Lecture and case study discussion.	

Session 19	**Bass Diffusion Model for New Product Forecasting**	PLO9, PLO10
Objective of the session	Apply the Bass Diffusion Model for new product forecasting.	
Subtopics to be covered	Understanding and applying the Bass model.	
Readings	Part VII, Chapter 27	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 20	**Quiz 2 and Retailing: Market Basket Analysis**	PLO8, PLO9, PLO10
Objective of the session	Analyze customer purchase patterns using market basket analysis.	
Subtopics to be covered	Techniques for market basket analysis and lift calculations.	
Readings	Review relevant parts; Part VIII, Chapter 29	
Case Title & Number	None	
Pedagogy	Quiz (15-20 mins) followed by lecture on Market Basket Analysis	
Session 21	**Optimizing Direct Marketing with RFM Analysis**	PLO8, PLO9, PLO10
Objective of the session	Optimize direct marketing using RFM analysis.	
Subtopics to be covered	RFM analysis techniques, optimizing direct mail.	
Readings	Part VIII, Chapter 30	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 22	**Advertising Effectiveness**	PLO8, PLO9, PLO10
Objective of the session	Assess understanding and reinforce learning.	
Subtopics to be covered	Topics covered in Sessions 9-16; Measuring Advertising Effectiveness.	
Readings	Part IX, Chapter 34	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 23	**Guest Lecture: Advanced Analytics Strategies**	PLO5, PLO8
Objective of the session	Gain additional insights from another industry expert.	

Subtopics to be covered	Relevant to advanced topics.	
Readings	None	
Case Title & Number	None	
Pedagogy	Guest lecture and Q&A.	
Session 24	**Pay-Per-Click Advertising and Best Practices**	PLO8, PLO9, PLO10
Objective of the session	Understand PPC advertising and its strategies.	
Subtopics to be covered	Basics of PPC advertising and best practices.	
Readings	Part IX, Chapter 36	
Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 25	**Applied Learning Session IV**	PLO7, PLO9, PLO10, PLO12
Objective of the session	Finalize applied learning projects and presentations.	
Subtopics to be covered	Group presentations and feedback.	
Readings	None	
Case Title & Number	None	
Pedagogy	Hands-on data analysis and group activities.	
Session 26	**Quiz 3 and Text Mining**	PLO8, PLO9, PLO10
Objective of the session	Assess understanding and reinforce learning.	
Subtopics to be covered	Topics covered in Sessions 17-20; Text Mining.	
Readings	Review relevant parts; Part X, Chapter 45	
Case Title & Number	None	
Pedagogy	Quiz (15-20 mins) followed by lecture on Text Mining.	
Session 27	**Viral Marketing**	PLO8, PLO9, PLO10
Objective of the session	Understand the concept of viral marketing and learn how to create and implement viral marketing campaigns.	
Subtopics to be covered	Introduction, creating viral marketing, Measuring Effectiveness	
Readings	Section 44	

Case Title & Number	None	
Pedagogy	Lecture and class discussion with Excel application.	
Session 28	**Final Project Presentations**	PLO5, PLO6, PLO7, PLO10, PLO11, PLO12
Objective of the session	Final presentations	
Subtopics to be covered	Group project presentations	
Readings	None	
Case Title & Number	None	
Pedagogy	Group presentations and feedback.	
Session 29	**Final Project Presentations**	PLO5, PLO6, PLO7, PLO10, PLO11, PLO12
Objective of the session	Final presentations	
Subtopics to be covered	Group project presentations	
Readings	None	
Case Title & Number	None	
Pedagogy	Group presentations and feedback.	
Session 30	**Course Summary and Wrap-Up**	PLO5, PLO10
Objective of the session	Final review and wrap-up of the course.	
Subtopics to be covered	Summary of key topics, course feedback.	
Readings	Review relevant parts.	
Case Title & Number	None	
Pedagogy	Lecture and open discussion.	

Disability Support

JGU endeavours to make all its courses accessible to students. The Disability Support Committee (DSC) has identified conditions that could hinder a student's overall well-being. These include physical and mobility related difficulties, visual impairment, hearing impairment, mental health conditions and intellectual/learning difficulties e.g., dyslexia and dyscalculia. Students with any known disability needing academic and other support are required to register with the Disability Support Committee (DSC) by following the procedure specified at https://jgu.edu.in/disability-support-committee/

Students who need support may register any time during the semester up until a month before the end semester exam begins. Those students who wish to continue receiving support from the previous semester,

must re-register within the first month of a semester. Last minute registrations and support might not be possible as sufficient time is required to make the arrangements for support.

The DSC maintains strict confidentiality about the identity of the student and the nature of their disability and the same is requested from faculty members and staff as well. The DSC takes a strong stance against in-class and out-of-class references made about a student's disability without their consent and disrespectful comments referring to a student's disability.

All general queries are to be addressed to disabilitysupportcommittee@jgu.edu.in

Disclaimer: This course outline including assessments, mode, nature and weightage of assessments, sessions, sequence of sessions and/or readings may be revised during the semester if such need arises.