

Course Code	Course Title	L	T	P	C
BAMGT209	Data-Driven Marketing	2	0	2	3
Pre-requisite	NIL	Syllabus Version			
		1			
Course Objectives					
Develop analytical competence in exploring, processing, and interpreting marketing data using tools such as Python and Excel to derive actionable business insights. Enable learners to apply advanced marketing analytics techniquesâ€”including clustering, multidimensional scaling (MDS), and conjoint analysisâ€”for segmentation, targeting, positioning, and product-related decisions. Foster the ability to integrate customer, sales, and campaign analytics to design data-driven strategies for pricing, promotion, and distribution that enhance marketing effectiveness and decision-making					
Course Outcomes					
Use marketing data using Python, Excel, and visualization tools to identify key trends, relationships, and performance indicators. Apply clustering, multidimensional scaling (MDS), and conjoint analysis techniques for effective segmentation, targeting, positioning, and product decisions. Analyze pricing, promotional, and distribution strategies using data-driven models for revenue optimization and market performance improvement. Critique customer insights, campaign analytics, and product forecasting models to enhance marketing effectiveness and decision-making. Assess the impact of data-driven marketing strategies through dashboards, performance metrics, and evidence-based evaluation methods.					
Module:1	Exploring and Visualizing Marketing Data	3 hours			
Data Exploration for Marketing - Identifying Key Attributes - Customer and Campaign Analysis with Python (groupby, value_counts) - Marketing Metrics and Conversion Ratios - Pivot Tables for Performance Summarization - Data Visualization with Pandas, Seaborn, and Matplotlib - Excel for Marketing KPIs and Dashboarding.					
Module:2	Data Driven Segmentation Targeting and Brand Positioning	4 hours			

Unsupervised Learning for Segmentation-K-Means clustering, and interpreting clusters- From Segmentation to Targeting: linking customer clusters to marketing strategies and campaign personalization. - Advanced Techniques: high-dimensional data, multidimensional scaling (MDS) for perceptual mapping and Brand Positioning.		
Module:3	Customer Insights and Product Forecasting through Data Analytics	5 hours
Understanding customer preferences and needs - Conjoint Analysis for product features, pricing, and decision-making - Forecasting New Product Sales using S-curves and the Bass Diffusion Model - Product Portfolio Analysis and Life Cycle Management-Data-driven strategies for product mix, portfolio evaluation, and product launch decisions.		
Module:4	Data Driven Pricing Revenue Optimization and Distribution Analytics	8 hours
Estimating demand curves and using Solver for price optimization - Pricing strategies including price bundling, nonlinear pricing, and price skimming - Revenue management principles and dynamic pricing - Practical applications linking pricing data to profitability, marketing strategy, and revenue optimization. Market Identification - Market Channel Analytics - Retail Scoring - Sales Dashboard Creation - Inventory Models - Supply Chain and Distribution Analytics: Tools and Techniques.		
Module:5	Promotional customer and Sales Analytics	8 hours
Ad Stock Models - Promotional Channel Analytics - Digital Analytics - Social Media Analytics - Google Analytics. Customer Sentiment Analysis, Market Basket Analysis - Customer Life Time Value (CLTV) - Customer Retention - Monte Carlo Simulation - E-commerce Sales Models - Sales and Profitability Metrics - Rapid decision models - Data Driven Presentations		
Module:6	Contemporary Topics	2 hours
Guest Lectures from Industry Experts, Recent Trends		
Total Lecture Hours:		30 hours
Text Book(s)		
Grigsby, M. and Page, K. , "Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques " , Kogan Page Ltd, 3 rd Edition, 2022 Mirza Rahim Baig, Gururajan Govindan & Vaibhav Kumar , "Data Science for Marketing Analytics: A Practical Guide to Forming a Killer Marketing Strategy through Data Analysis with Python " , Packt Publishing Limited, 2 nd Edition, 2021		

Unemyr, M. and Wass, M. , "Data-Driven Marketing with Artificial Intelligence: Harness the Power of Predictive Marketing and Machine Learning" , Amazon KDP, 1 st Edition, 2018	
Reference Books	
Wayne L. Winston , "Marketing Analytics: Data-Driven Techniques with Microsoft Excel" , Wiley, 1 st Edition, 2014 Paul W. Farris, Neil T. Bendle, Phillip E. Pfeifer, David J. Reibstein , "Marketing Metrics: The Definitive Guide to Measuring Marketing Performance" , Pearson, 2 nd Edition, 2010	
Indicative Experiments	
1. Slicing, Dicing, grouping, and visualizing Marketing Data	2 hours
2. K-Means Clustering for Consumer Segmentations	2 hours
3. Conjoint Analysis for Product Decisions	2 hours
4. Multidimensional Scaling (MDS) for Brand Perceptual Mapping	2 hours
5. Demand Curve Estimation and Price Optimization	2 hours
6. Market Channel Analytics	2 hours
7. Advertisement Impact Analysis: Adstock Model	3 hours
8. Promotional Channel Analytics	3 hours
9. Market Basket Analysis	3 hours
10. Analyzing the Consumer Life Time Value	3 hours
11. Consumer Sentiment Analysis	3 hours
12. Social Media and Web Analytics	3 hours
Total Laboratory Hours:	30 hours
Text Book(s)	
Grigsby, M. and Page, K, "Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques" , Kogan Page Ltd, 3 rd Edition, 2022 Mirza Rahim Baig, Gururajan Govindan & Vaibhav Kumar, "Data Science for Marketing Analytics: A Practical Guide to Forming a Killer Marketing Strategy through Data Analysis with Python" , Packt Publishing Limited, 2 nd Edition, 2021	

Reference Books	
Wayne L. Winston , " Marketing Analytics: Data-Driven Techniques with Microsoft Excel ", Wiley, 1 st Edition, 2014	
Mode of Evaluation: Continuous Assessment Test, Quiz, Final Assessment Test, Seminar, Group Discussion, Course Project	
Recommended by Board of Studies :	26-09-2025
Approved by Academic Council : No. 80	20-11-2025