

Course Code	Course Title	L	T	P	C
OLMBA611	Marketing Analytics	3	1	0	4
Pre-requisite	NIL	Syllabus version			
		1.0			
Course Objectives:					
1. To learn the basics of R programming. 2. To combine various concepts of marketing and business analytics tools. 3. To solve real life marketing problems using a sequence of quantitative approaches. 4. Solve an entire marketing analytics project end to end.					
Course Outcomes:					
1. Identify a marketing problem as a sequence of small questions. 2. Determine the appropriate tools and datasets essential for addressing each individual research question. 3. Effectively employ various available tools and select the best suitable one. 4. Construct a marketing story out of the statistical and machine learning tools applied.					
Module:1	Introduction to Marketing Analytics and R Programming				
Marketing analytics Vs Business analytics, Business intelligence and Data science, Machine learning algorithms, Big data, Normal distribution and Hypotheses development, Introduction to R programming and Exploratory data analysis.					
Module:2	Market Segmentation and Positioning				
Segmentation: Data collection in segmentation, Customer segmentation process, Data analysis for customer segmentation (cluster analysis - applications and clustering algorithm, classification trees for segmentation, and discriminant analysis), Positioning: perceptual mapping and multidimensional scaling.					
Module:3	Customer Analytics				
Building customer persona – ANOVA, principal component analysis, customer lifetime value (CLV) – Need for calculating CLV, identifying profitable customers, computing CLV - churn analytics - Calculating churn rate, identifying churn, and importance of customer retention.					
Module:4	Product Analytics				
Analyzing digital products and non-digital products, utility and choice, conjoint analysis, product attributes and attribute levels, product levels, RFM, and market basket analysis (MBA).					
Module:5	Pricing Analytics				
Pricing goals – Price bundling – Non-linear pricing - Price skimming - Revenue management - Price elasticity - Simple linear regression and correlation, Multiple regression to forecast sales - Modelling trend and seasonality.					
Module:6	Promotion and Digital Analytics				
Marketing Mix Modelling, web metrics, search engine marketing and optimization, text mining, sentiment analysis, recommendation systems, and social network analysis.					
Module:7	Data Visualization and Artificial Intelligence (AI)				
Data visualization and storytelling, creating dashboards, understanding patterns and trends, charts, key applications of AI in marketing, concepts of ML, random forests, and model evaluation using ROC, AUC and confusion matrix.					
Total Hours of Study:					120 Hrs.

Text Book(s)			
1.	Gupta. S, and Jathar. A, 2021. <i>Marketing Analytics</i> . Wiley & Sons.		
2.	Stephen Sorger, (2013), MARKETING ANALYTICS, Strategic Models and Metrics, First Edition, Admiral Press. Gary L. Lilien and Arvind Rangaswamy (2014), Marketing Engineering: Computer-Assisted		
3.	Marketing Analysis and Planning, Trafford Publishing UK		
Reference Books			
1.	Winston, W.L., 2014. <i>Marketing analytics: Data-driven techniques with Microsoft Excel</i> . John Wiley & Sons.		
2.	Wayne L. Winston (2014), Marketing Analytics: Data-Driven Techniques with Microsoft Excel, Wiley, Indianapolis.		
3.	Paul W. Farris, Neil T. Bendle, Phillip E. Pfeifer, David J. Reibstein (2010), Marketing Metrics, 2nd Edition, Pearson USA.		
Mode of Evaluation: Quiz/ Assignment/CAT/FAT			
Recommended by Board of Studies		02-11-2023	
Approved by Academic Council		No. 72	Date: 13-12-2023