

## MBAS 460 : MARKETING ANALYTICS

Workload	: 4 hours per week - Total credits 04
Examination	: 3 hours; 30 marks continuous evaluation & 70 marks final examination.
Objectives	<ol style="list-style-type: none"><li>1. To give a broad overview of marketing analytics to people who don't have any related background.</li><li>2. To describe all the critical topics in a consumer-focused analytic approach.</li><li>3. To describe the students who have learned plenty of theories and want to learn how to apply methodologies.</li><li>4. To learn how analytics work in real life.'</li><li>5. To describe an overview of the most actionable techniques that virtually any organization can apply to gain immediate benefits.</li><li>6. To study scientific and innovative solutions to common marketing problems in the current business environment.</li><li>7. To study the recent trends in marketing analytics.</li></ol>
Course Outcomes	<ol style="list-style-type: none"><li>1. After understanding marketing analytics the student can become a marketing analyst.'</li><li>2. Marketing analytics would save a lot of independent research</li><li>3. Students will be sound smarter in the boardroom after understanding marketing analytics.</li><li>4. Understanding of marketing analytics adds a completely new dimension to marketing science.'</li><li>5. It helps to Optimize Your Marketing Spending Using Customer Data.</li><li>6. It helps to present meaningful, clear data to support decision making and convince stakeholder.</li><li>7. Understanding of marketing analytics helps a company make informed business decisions.</li></ol>
Pedagogy	Lectures, assignments, practical exercises, discussions, seminars, etc.

**Module 1:** Introduction to marketing analytics: Summarize Marketing Data: Slicing and Dicing Marketing Data with PivotTables, Using Excel Charts to Summarize Marketing Data, Using Excel Functions to Summarize Marketing Data.

**Module 2;** Pricing: Estimating Demand Curves and Using Solver to Optimize Price, Price Bundling, Nonlinear Pricing. Price Skimming and Sales, Revenue Management.

**Module 3:** Forecasting: Simple Linear Regression and Correlation, Using Multiple Regression to Forecast Sales, Forecasting in the Presence of Special Events, Modeling Trend and Seasonality, Ratio to Moving Average Forecasting Method, Winter's Method, Using Neural Networks to Forecast Sales.

**Module 4:** Customer Value: Calculating Lifetime Customer Value, Using Customer Value to Value a Business, Customer Value, Monte Carlo Simulation, and Marketing Decision Making, Allocating Marketing Resources between Customer Acquisition and Retention

**Module 5:** Market Segmentation - Cluster Analysis, Collaborative Filtering , Using Classification Trees for Segmentation

**Module 6:** Forecasting New Product Sales- Using S Curves to Forecast Sales of a New Product, The Bass Diffusion Model, Using the Copernican Principle to Predict Duration of Future Sales.

**Module 7:** Retailing- Market Basket Analysis and Lift, RFM Analysis and Optimizing Direct Mail Campaigns, Using the SCAN\*PRO Model and Its Variants  
Allocating Retail Space and Sales Resources, Forecasting Sales from Few Data Points

**Module 8:** Advertising- Measuring the Effectiveness of Advertising, Media Selection Models, Pay per Click (PPC), Online Advertising

**Module 9:** Marketing Research Tools- Principal Components Analysis (PCA)  
Multidimensional Scaling (MDS), Classification Algorithms: Naive Bayes, Classifier and Discriminant Analysis, Analysis of Variance: One-way ANOVA, Analysis of Variance: Two-way ANOVA

**Module 10:** Internet and Social Marketing- Networks, The Mathematics Behind *The Tipping Point*, Viral Marketing, Text Mining

Reference Books:

1. Mike Grigsby, Marketing Analytics: A Practical Guide to Real Marketing Science, 2nd Ed, Kogan Page Limited, E-ISBN 978 0 7494 7418 8, Amazon Asia-Pacific Holdings Private Limited
2. Omer Artun and Dominique Levin, Predictive Marketing - Easy Ways Every Marketer Can Use Customer Analytics and Big Data, Wiley. (2015), Rs. 853/- Amazon Asia-Pacific Holdings Private Limited
3. Wayne L Winston, Marketing Analytics- Data-Driven Techniques with Microsoft Excel, Wiley. (2014), Sold by Amazon Asia-Pacific Holdings Private Limited, Rs. 838/-
4. Stephan Sorger, Marketing Analytics: Strategic Models and Metrics, 1st Ed, Kindle Books. 2013.
5. Chuck Hemann, and Ken Burbary, Digital Marketing Analytics: Making Sense of Consumer Data in a Digital World (Que Biz-Tech) Kindle Edition, Que Publishing, Sold by Amazon Asia-Pacific Holdings Private Limited, Rs. 589/-
6. Rajkumar Venkatesan, Paul W. Farris and Ronald T. Wilcox (2014), Cutting Edge Marketing Analytics: Real World Cases and Data Sets for Hands On Learning, Pearson FT Press.
7. Sandhya Kuruganti and Hindol Basu, Business Analytics: Applications To Consumer Marketing (2015), McGraw Hill, Rs.704/-

