

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WB
Syllabus of BBA in Digital Marketing
(Effective for 2021-2022 Admission Session)
Choice Based Credit System
140 Credit (3-Year UG)

Semester-VI

Paper Code: BBA (DM) 601

Paper Name: Project Management

Total Credit: 6

Total hours: 60 hours

Course Outcomes:

After the completion of this course the students will be able to

1. To make them understand the concepts of Project Management for planning to execution of projects.
2. To make them understand about each steps as well as aspects involved in Project Management.
3. To build understanding about tools and techniques of project management along with application in proper context.

Sl.	Topic/Module	Hour
1.	Module 1: Project Management tools, functions, activities	6 L
2.	Module 2: Project Selection management - feasibility - types and checkpoints in the Project Management, Life Cycle; Financial Analysis (NPV, ROI, IRR); Development Productivity Index (DPI); Screening Process.	8 L
3.	Module 3: Project Management Methodology. Project appraisals, feasibility reporting, final project report including P&I appraisal as applicable. Technical and Financial Analysis.	8L
4.	Module 4: Project Planning and Scheduling (Network Analysis, CPM, PERT, Crashing and Resource Optimization; Project Work Breakdown and structure (functions, activities and tasks); Project cost estimation.	2 L +8 P
5.	Module 5: Project Roles, Team Types and Team Building. Organization structure for effective project implementation.	8L
6.	Module 6: Project risk Management and Mitigation Strategies; Social cost-benefit analysis. Project Control. Project Management measuring, monitoring and tracking techniques; Resource allocation and scheduling and purchasing.	8L
7.	Module 7: Project MIS - principal features	2L + 2P

Suggested Readings:

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1. Sitangshu Khatua : Project Management and Appraisal : Oxford
2. Dr. Raj Kumar Yadvendra Gullybaba.com Panel: MS-52 Project Management, Gullybaba Publishing House Pvt. Ltd.
3. Horold Kerzner : Project Management : A System Approach to Planning, Scheduling and Controlling : Wiley.
4. Erik Larson and Clifford Gray : Project Management: The Managerial Process, McGraw Hill Education.
5. Project Management: Essential Managers, DK.
6. Kalpesh Ashar: Project Management Essentials You Always Wanted To Know, Vibrant Publishers.

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Paper name: Data Visualization and Interpretation

Paper Code: BBA (DM) 602 and BBA (DM) 692

Total Credit: 4L + 2P

Total hours of lectures: 40 + 40 hours

Course Outcomes:

After completion of the course, the students will be able to

1. Understand the necessity of data visualization.
2. Familiarization with basic types of data visualization techniques.
3. Build concept regarding when to use which charts in case of predictive and classification analytics.

Module/Topics	Hours (L+P)
<p>Module 1: Introduction to Data Visualization</p> <p>Acquiring and Visualizing Data, Simultaneous acquisition and visualization, Applications of Data Visualization, Keys factors of Data Visualization (Control of Presentation, Faster and Better JavaScript processing, Rise of HTML5, Lowering the implementation Bar) Exploring the Visual Data Spectrum: charting Primitives (Data Points, Line Charts, Bar Charts, Pie Charts, Area Charts), Exploring advanced Visualizations (Candlestick Charts, Bubble Charts, Surface Charts, Map Charts, Infographics). Making use of HTML5 CANVAS, Integrating SVG.</p>	15 + 10
<p>Module 2: Basics of Data Visualization – Tables</p> <p>Reading Data from Standard text files (.txt, .csv, XML), Displaying JSON content Outputting Basic Table Data (Building a table, Using Semantic Table, Configuring the columns), Assuring Maximum readability (Styling your table, Increasing readability, Adding dynamic Highlighting), Including computations, Using data tables library, relating data table to a chart.</p>	15 + 10
<p>Module 3: Univariate analytics: Categorical: Count plot, Pie chart. Numerical data: Histogram, Distribution plot, Box plot.</p> <p>Bivariate and Multivariate analysis: Scatter plot, Bar plot, Box plot, Heatmap, Cluster map, Pair plot, Violin plot, Distribution plot, Joint plot.</p> <p>Some other useful visualization techniques: Wordcloud, Dendograms</p> <p>When to use which charts and its result interpretation.</p>	5 + 10

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Use of any open source programming language for these visualization techniques.	
Module 4: Data Visualization using Power BI and Introduction to Tableau: Need, Importance, Advantages and Scalable Options, Introduction to Power View, Power Query, Power Pivot, Introduction to tableau, Common charts.	5 + 10

References:

1. Dr. Shirshendu Roy, Data Visualization, Notion Press
2. Aakash Gohil, Data Visualization & Storytelling for Business Analysts - Tips, Techniques, Best Practices and the Mindset.
3. Rao, Kathula Purna Chander, Hands-on Data Analysis and Visualization with Pandas, BPB Publications.
4. Nussbaumer Knaflic Cole, Storytelling with Data, John Wiley & Sons Inc.
5. Claus O. Wilke, Fundamentals of Data Visualization: A Primer on Making Informative and Compelling Figures, Shroff Publishers.

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Paper Name: Data Mining

Paper Code: BBA (DM) 603 (A)

Total Credit: 6

Total hours: 60 hours

Course Outcomes:

After the completion of this course the students will be able to

1. Illustrate the knowledge using data mining techniques.
2. Outline the basic concepts of data warehouse, data mart, data cube etc.
3. Demonstrate various types of data mining techniques along with application criteria.
4. Examine various model evaluation techniques.

Sl.	Topic/Module	Hours
1.	Module 1: Introduction to Data Mining: Concept, Methodology (SEMMA/CRISP - DM), Kind of patterns, Technologies, Application, Issues, Data Objects, Attribute types, Basic Statistical descriptions of data, Measuring Data Similarity and Dissimilarity, Basics of data Pre-processing.	6
2.	Module 2: Introduction to Data Warehousing: Basic Concepts, OLTP, OLAP, Data Cube, Data Mart.	6
3.	Module 3: Mining Patterns, Associations: Basic Concepts, Terminologies, Apriori Algorithm, Model evaluation.	4
4.	Module 4: Introduction to Classification: Definition, Concepts, Applications, Techniques: Decision tree Induction, k-NN, Bayes Classifiers, Rule-based classification: Basic Concepts, Terminologies, Applications, Only introductory concepts of Neural Network.	4
5.	Module 5: Introduction to Cluster Analysis: Definition, Terminologies, Technologies: Hierarchical and Non-hierarchical clustering.	10
6.	Module 6: Introduction to Dimension Reduction Techniques: Concepts, Terminologies, PCA.	10
7.	Module 7: Natural Language Processing: Concept, Terminologies,	10

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	Techniques.	
8.	Module 8: Model Evaluation Techniques.	10

Suggested Readings:

1. Jhan, M Kambel & J Pei: Data Mining Concepts & Techniques, Morgan Kaufmann Series.
2. Soumendra Mohanty: Analytics in Practice, Tata McGraw-Hill Education Private Limited.
3. Arun Pujari: Data Mining, Prentice Hall India.
4. Satish Kumar : Neural Network: Tata McGraw Hill.
5. Nitin R Patel & Peter C Bruce: Data Mining for Business Intelligence, Wiley, India.
6. Han & Kamber: Data Mining Concepts and Techniques, Morgan Kaufman.

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Course: Marketing Analytics

Code: BBA (DM) 603 (B)

Total Credits: 6

Total Hours – 60 Hours

Course Outcomes:

After the completion of this course the students will be able to

1. Understand fundamental marketing concepts, theories, and principles in areas of marketing.
2. Fundamental knowledge of applying analytics to overcome challenges, and issues of marketing in a changing technological landscape.
3. Understand how effectiveness of marketing programs can be evaluated through metrics.

Sl.	Topic/Module	Hour
1.	Module 1: Introduction to Marketing Analytics: Introduction, Using excel to summarize data	5
2.	Module 2: Forecasting: Simple Linear Regression, Multiple Linear Regression to forecast sales.	5
3.	Module 3: Pricing: Estimating Demand Curves, Price Bundling, Nonlinear Pricing, Price Skimming, Revenue Management.	10
4.	Module 4: Consumer Analytics: Calculation of customer lifetime value, using Monte Carlo Simulation to calculate customer value.	10
5.	Module 5: Retailing: Market Basket Analysis, Lift, RFM Analysis, Allocating Retail Space and Sales Resources.	10
6.	Module 6 Advertising: Measuring the effectiveness of advertisements, Pay Per Click Online Advertising.	10
7.	Module 7: Internet and Social Marketing	10

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Suggested Readings:

1. Kotlar Philip and Armstrong Gary: Principles of Marketing, Pearson.
 2. Arun Kumar: Marketing Management, Vikas Publishing House.
 3. Saxena, Rajan: Marketing Management, TMH.
 4. Gandhi, J.C.: Marketing, TMH.
 5. Wayne L. Winston: Marketing Analytics, Willey.
 6. Farris: Marketing Metrics, Pearson.
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