

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WB
Syllabus of BBA
(Effective for 2020-2021 Admission Session)
Choice Based Credit System
140 Credit (3-Year UG) MAKAUT Framework
w.e.f 2020-21
Semester-VI

Paper name: Project Management

Paper Code: BBA 601

Total Credit: 6

Total hours of lectures: 60 hours

Course Outcome:

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

1. define the concepts of Project Management for planning to execution of projects
2. interpret various steps as well as aspects involved in Project Management.
3. relate the importance of team in the successful execution of a project
4. articulate the tools and techniques of project management along with application in proper context.

Sl.	Topic/Module	Hours
1.	Module 1: Project Management tools, functions, activities	06
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.	08
3.	Module 3: Project Management Methodology. Project appraisals, feasibility reporting, final project report including P&I appraisal as applicable. Technical and Financial Analysis.	08
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.	10
5.	Module 5: Project Roles, Team Types and Team Building. Organization structure for effective project implementation.	08
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.	08

7.	Module 7: Project MIS - principal features	12
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Suggested Readings:

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: Supply Chain and Logistics Management

Paper Code: BBA- 602

Total Credit: 6

Total hours of lectures: 60 hours

Course Outcome:

1. define the fundamentals of elements and functions of logistics, supply chain, role of drivers and demand forecasting.
2. Illustrate the various frameworks of the supply chain management.
3. summarize the importance of logistics in the formulation of the business strategy and the conduct of supply chain operations.
4. articulate the basics of Supply Chain Analytics and it's application in Supply Chain Management.

Sl.	Topic/Module	Hour
1.	Module 1: Concept of logistics: Introduction, Objective, Types, Concept of Logistic Management, Evolution, Role of logistics in economy, Difference between logistics and supply chain, Logistics and Supply Chain Management, Logistics mix, Logistics and competitive advantage.	10
2.	Module 2: Integrated logistics: Introduction, Objective, Concept of Integrated Logistics, Information flow, Inventory flow, Inventory Ownership, Measurement system, Barriers, Logistics Performance Cycle, Procurement Performance Cycle.	10
3.	Module 3: Introduction to Supply Chain: Introduction, Objective, Concept, Defining Value Chain, Organisation Level Activities, Industry level, Value Reference Model, Functions, Contributions, Creating Value, Leveraging Value Chain Partners, Drivers of supply chain.	10
4.	Module 4: Framework for Supply Chain Management, Supply Chain Effectiveness, Supply Chain Relationship, Building long-Term	10

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	Relationship with Vendors, VMI.	
5.	Module 5: Sourcing strategy: Manufacturing management, Make or buy decision, Capacity management, Materials Management, Choice of sources, Procurement planning, Basics of demand forecasting.	10
6.	Module 6: Introduction to Supply Chain Analytics: Introduction to Tools and Techniques (Inventory Management Decisions-Multi-item, Deterministic Constraint Models & probabilistic Models, AHP Applications, optimization for SCM support etc.).	10

Suggested Readings:

1. Sunil Chopra: Supply Chain Management, Pearson Prentice Hall.
2. Sunil Chopra, Peter Meindl, D.V. Kalra: Supply Chain Management, Pearson.
3. Michael Hugos: Essentials of Supply Chain Management, Wiley.
4. Richard B, Ravi Shankar, F. Robert Jacobs: Operations and Supply Chain Management, McGraw Hill Education.
5. James Stevens: Supply Chain Management: Strategy, Operation & Planning for Logistics Management, Createspace Independent Pub.
6. Ashley McDonough: Operations and Supply Chain Management Essentials You Always Wanted to Know, Vibrant Publishers.

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Paper Name: Marketing Analytics

Paper Code: BBA 603 A

Total Credit: 6

Total hours of lectures: 60 hours

Course Outcome:

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

1. interpret various marketing analytics tools
2. articulate analytical skills to improve efficiency of various components of marketing mix
3. apply analytics to overcome challenges, and issues of marketing in a changing technological landscape.
4. Utilize analytics to boost marketing through internet and social media

Sl.	Topic/Module	Hours
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 Media Marketing	10

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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Paper name: Financial Analytics

Paper Code: BBA 603 (B)

Total Credit: 6

Total hours of lectures: 60 hours

Course Outcome:

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

1. define the concept of advanced financial management and risk analysis
2. interpret the analysis of financial data using different statistical tools.
3. articulate the financial services on the basis of machine learning and artificial intelligence
4. illustrate the model on optimal portfolio selection and Risk-Return Trade-off & Quadratic Utility

Module/Topics	Hours
Module 1: Introduction to Financial Analytics: Analytical thinking, Role of a Financial Analyst, News analytics (accessing news using web scrapping) and sentiment analysis in finance, Data Driven Financial Decision, Decision making under uncertainty,	04
Module 2: Introduction to Analysis of Financial Data Using Statistical Tools: Statistical concepts; Probability, Normal, Lognormal distribution properties, Data visualization, Understanding data in finance, cleaning and pre-processing of data, Application of software on different forms of financial data set- Time Series and Cross Sectional Data	12
Module 3: Financial Modelling: Introduction to Basic Financial Functions in Excel, Discounted Cash flows, Annuity, PMT, PV, NPV, IRR, Financial modelling using Ratios, income statement and financial statements using Excel	16
Module 4: Application of Data Science across Financial Services: Learn about Financial Data Analytics with respect to Data Science in Financial Services, Artificial Intelligence and Machine Learning in Financial Services, Usage of AI in Algorithmic Stock Trading, Automated Robo-Advisors, Fraud Detection and Prevention.	12
Module 5: Optimal Portfolio Allocation: Capital Allocation Line (CAL) and Optimal	10

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Portfolio, Lending and Borrowing on the CAL, analysis using indifference curves. CAPM- Features of Markowitz analysis, expected returns from historical averages, efficient frontier.	
Module 6: Risk-Return Trade-off & Quadratic Utility: Investments and trade consumption across time, trade-off between risk and return, decision making under uncertainty, indifference curves, quadratic utility function, etc.	6

References:

1. M. J., & Hugen, D. L . Financial analytics with R: building a laptop laboratory for data science Bennett, Cambridge University Press.
2. Hilpisch, Y. " O'Reilly Python for Finance: Analyze big financial data, Media, Inc."
3. Consoli, S., Reforgiato Recupero, D., & S. Data Science for Economics and Finance. Methodologies and Applications, Springer Nature.
4. Aldridge, I., & Avellaneda, M. John Big data science in finance- Wiley & Sons.
5. Lukomnik, J., & Hawley, J. P Moving Beyond Modern Portfolio Theory- Investing that Matters,. . . Routledge.
6. Reilly, F. K., & Brown, K. C Investment Analysis and Portfolio Management., Cengage Learning.
7. Rees, M. John. Principles of financial modelling: model design and best practices using Excel and VBA. Wiley & Sons.

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Paper Name: Human Resource Analytics

Paper Code: BBA 603 (C)

Total Credit: 6

Total hours of lectures: 60 hours

Course Outcome:

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

1. define the role and importance of analytics in managing human resource effectively.
2. interpret the concept and relevance of HR metrics
3. apply analytical techniques in human resource domain to successfully conduct various HR functions
4. articulate HR dashboard and application of software in HR domain.

Sl.	Topic/Module	Hour
1.	Module 1: Understanding HR analytics: Definition, Understanding the need, Human capital data storage, Current state of HR analytic professional and academic training, HR analytics and HR people strategy, Becoming a persuasive HR function, Usage, ethics and limitations.	8
2.	Module 2: Basic concepts, module and application of HR information systems and data.	8
3.	Module 3: Analysis strategies: From descriptive reports to predictive analytics, Statistical significance, Data integrity, Types of data, Concept of Independent-Dependent variable, When to use which test.	8
4.	Module 4: Employee attitude surveys – engagement and workforce perceptions: What is employee engagement. How do we measure employee engagement, Interrogating the measures, Cases.	8
5.	Module 5: Predicting employee turnover: Employee turnover and why it is such an important part of HR management information, Descriptive turnover analysis, measuring turnover at individual or team level, Exploring differences in both individual and team-level turnover, Cases.	8

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6.	Module 6: Predicting employee performance: Method and measure to indicate performance, Cases.	8
7.	Module 7: Recruitment and selection analytics: Reliability and validity of selection methods, Human bias in recruitment selection, Cases.	6
8.	Module 8: HR Metrics –Defining metrics, Demographics, data sources and requirements, Types of data, tying data sets together, Difficulties in obtaining data, ethics of measurement and evaluation. Human capital analytics continuum.	4
9.	Module 9: Concepts of HR Dashboards , Statistical software used for HR analytics.	2

Suggested Readings:

1. Dr Martin Edwards, Kirsten Edwards: Predictive HR Analytics: Mastering the HR Metric, Kogan Page.
2. Ramesh Soundararajan and Kuldeep Singh: Winning on HR Analytics: Leveraging Data for Competitive Advantage, Sage.
3. Dipak Kumar Bhattacharyya: HR Analytics: Understanding Theories and Applications, Sage.
4. Jac FITZ-ENZ: The New HR Analytics: Predicting the Economic Value of Your Company's Human Capital Investments, Amacom.