

Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly known as West Bengal University of Technology)
Syllabus of Bachelor of Business Administration
Effective from academic session 2023-2024

Course Title: Project Management

Paper Code: BBACO-601

[Total Credit: 4]

[Total Hours: 40]

Course Outcomes (COs):

After completion of this course, students will be able to :

<u>CO No.</u>	<u>Course Outcome</u>	<u>Cognitive Level (Bloom's Taxonomy)</u>
CO1	Define and describe the fundamentals, characteristics, and life cycle of projects.	Remembering & Understanding
CO2	Apply project selection and appraisal techniques using financial and non-financial criteria.	Applying
CO3	Analyze project planning, scheduling, and resource allocation using tools like PERT/CPM.	Analyzing
CO4	Evaluate risk management, project budgeting, and performance monitoring techniques.	Evaluating
CO5	Develop a project plan considering sustainability, stakeholder management, and quality standards.	Creating

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Module I: Introduction to Project Management : **1.** Concept and Characteristics of Projects ; Project Life Cycle Phases ; Importance and Scope of Project Management **2.** Project Identification and Formulation ; Project Feasibility Analysis (Market, Technical, Financial, Environmental) ; Social Cost Benefit Analysis **3.** Project Management - Role of Project Manager and Project Organization Structures ; Benefits of Project Management

[Learning Level: Remembering, Understanding]

(8L)

#Module II: Project Planning and Scheduling) : **1.** Project Planning Process and Objectives, Work Breakdown Structure (WBS) , Gantt Charts and Project Scheduling Tools (MS Project/Equivalent) **2.** Network Analysis: PERT and CPM , Time-Cost Trade-off , Crashing of Project Time **3.** Resource Optimization – Resource Allocation and Leveling

[Learning Level: Applying, Analyzing]

(10L)

#Module III: Project Appraisal and Financing : **1.** Project Selection Criteria – ROI , NPV, IRR, Payback, PI ; Investment Risk and Sensitivity Analysis **2.** Sources of Project Financing - Equity, Debt, Venture Capital, and Institutional Support ; Role of Financial Institutions and Banks in Project Finance ; Cost of Capital and Capital Budgeting Decisions

[Learning Level: Applying, Evaluating]

(6L)

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#Module IV: Project Implementation , Control & Closure : 1. Project Execution and Monitoring Mechanisms ; Performance Measurement 2. Project Management Challenges – Scope Creep , Managing Stakeholder expectations, Building and managing Project Teams 3. Project Risk Identification and Mitigation Strategies - Risk identification, analysis, and response planning ; Project Quality Management 4. Project Closure – Closing Processes & Final Deliverables , Post-project review and lessons learned ; Communication and Documentation in Projects - Project MIS Concept , Post Project Evaluation – Objectives , Phases and Types of Project Audit

[Learning Level: Analyzing, Evaluating]

(8L)

Module V:

1.Contemporary Issues and Applications : 1. Project Management in Service Sector and Public Sector ; Sustainable and Green Project Management 2. Waterfall, Agile and Lean Project Management Concepts ; Project Management Software Tools (Overview only)

[Learning Level: Creating, Evaluating]

(4L)

2. Case Studies & Practical Applications : ; Case Studies of Successful and Failed Projects

(I) Case study analysis from various industries (viz. IT, construction, manufacturing)

(II) Group project work : Develop a full-fledged project plan (Scope, Time, Cost, Risk, etc.)

(4L)

[Learning Level: **Creating:** Develop a comprehensive project plan based on case study data
Analyzing : Analyze real-life case studies and suggest improvements.]

Suggested Readings:

1. *Chandra, Prasanna – Projects: Planning, Analysis, Selection, Financing, Implementation and Review – McGraw Hill*
2. *Kerzner, Harold – Project Management: A Systems Approach to Planning, Scheduling, and Controlling – Wiley*
3. *Pinto, Jeffrey K. – Project Management: Achieving Competitive Advantage – Pearson*
4. *Lock, Dennis – Project Management – Gower Publishing*
5. *Nicholas, John M. & Steyn, Herman – Project Management for Business, Engineering, and Technology – Routledge*
6. *Sitangshu Khatua : Project Management and Appraisal - Oxford Books*
7. *Erik Larson and Clifford Gray : Project Management: The Managerial Process, McGraw Hills Education*
8. *K Nagarajan : Project Management - New Age International Publishers*

Pedagogy:

- Lectures, Case Studies, Project Simulations, Group Discussions, and Presentations

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Business Research Methods
Paper Code: BBACO602

Total Credit: 5

Total hours of lectures: 50 hours

Course Outcomes: After completion of this course, the students will be able to

1. Explain the basic nature and purpose of research and its advantages to business.
2. Make use of different research designs, data collection process, tools, data cleaning and analysis techniques.
3. Develop skills to write business research reports.
4. Apply the understanding of various statistical tools and its application for data analysis and interpretation.

Module I: Introduction to Business Research (10 Lectures)

1. **Meaning:** Definition, nature, and significance of research in business [1L]
2. **Objectives and Types of Researches:** Objectives and types of research: exploratory, historical, descriptive, causal, applied, basic research, quantitative and qualitative research. [3L]
3. **Research process:** steps involved in a research study [1L]
4. **Role of research:** Role of research in managerial decision-making [2L]
5. **Ethical issues:** Ethical issues in business research [2L]
6. **Research in Indian scenario:** Research in the Indian business environment (examples from Indian firms and markets). [1L]

Module II: Research Design and Sampling (12 Lectures)

7. **Meaning, Need and Importance:** Meaning, needs, importance of research design [2L]
8. **Types of research design:** exploratory, descriptive, experimental, longitudinal. Quantitative and qualitative research design [3L]
9. **Concept of hypothesis:** Formulation of research problem and just concept and formulation of hypotheses (null and alternative) [3L]
10. **Scaling techniques:** nominal, ordinal, interval, ratio, rating and ranking scales, criteria for good test [reliability, validity test] [4L]

Module III: Data Collection Methods, Sampling, Questionnaire Design (12 Lectures)

11. **Sources of data:** primary and secondary [1L]
12. **Methods of primary data collection:** observation, interview, questionnaire, schedule [2L]
13. **Questionnaire design:** principles, layout, pilot testing [2L]
14. **Secondary data:** sources, advantages, and limitations [1L]

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15. **Data cleaning and coding procedures:** data cleaning and coding procedure [1L]
16. **Online data collection tool:** Use and formation of online data collection tools (Google Forms, Survey Monkey, etc.) [2L]
17. **Sampling:** concept, need, types of sampling (probability & non-probability), determination of sample size [3L]

Module IV: Data Processing, Analysis, and Interpretation (9 Lectures)

18. **Data processing:** Editing, coding, classification, and tabulation of data [2L]
19. **Introduction to descriptive statistics:** mean, median, mode, standard deviation, variance [2L]
20. **Statistical tools for analysis:** Correlation and regression analysis [2L]
21. **Hypothesis testing:** concept, procedure, and application (Z-test, t-test, chi-square test, ANOVA) [2L]
22. **Introduction to statistical software:** (MS Excel/SPSS/R) for data analysis [1L]

Module V: Report Writing and Presentation of Results (4 Lectures)

23. **Report writing:** Meaning, types, importance, structure and format of research reports [1L]
24. **Style of report writing:** Writing style and presentation (language, charts, tables, referencing styles – APA/Harvard) [1L]
25. **Plagiarism:** Plagiarism and ethical reporting [2L]

Module VI: Application of AI in Business Research in India (3 Lectures)

26. **Research agencies:** Government and institutional research agencies in India (NSSO, CSO, NITI Aayog, IIMs, etc.) [1L]
27. **Current trends:** Current trends in business analytics and market research in India [1L]
28. **AI in business research:** Role of digital technologies and AI in business research [1L]

Suggested Readings:

1. S N Murthy and U Bhojanna: **Business Research Methods, Excel Books.**
2. D.R. Cooper and P.S. Schindler: **Business Research Methods, Tata McGraw –Hill**
3. Kothari, C.R.: **Research Methodology – Methods and Techniques, New Age International Ltd.**
4. U. Sekharan and R Bougie: **Research Methods for Business: John Wiley and Sons**
5. J. K .Das: **Business Mathematics and Statistics: Academic Publishers**
6. P Mishra: **Business Research Methods, Oxford University Press.**

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Data Analytics Skills for Managers
Paper Code: BBACO603

Total Credit: 5

Total hours of lectures: 50 hours

Course Outcomes: After completion of this course, the students will be able to

1. Explain the fundamental concepts of data analytics and its role in managerial decision-making.
2. Identify and collect relevant data from business processes and external sources for analysis.
3. Apply descriptive analytics techniques to summarize and interpret business data effectively.
4. Use statistical and visualization tools to derive managerial insights.
5. Employ predictive analytics methods, such as regression and forecasting, to support strategic business decisions.
6. Analyse business problems using data-driven approaches and recommend optimal solutions.
7. Evaluate the quality, reliability, and ethical use of data in managerial contexts.
8. Communicate analytical findings clearly to both technical and non-technical audiences through reports and dashboards.
9. Demonstrate the ability to integrate data analytics into various functional areas of management — including marketing, finance, operations, and human resources.

MODULE I: Introduction, Data Collection and Pre-processing:

1. **Introduction to Data Analytics:** Definition, Role of Data Analytics in business, Tools used in Data Analytics, DCOVA framework [3L]
2. **Data Collection and Data Pre-Processing:** Data Collection Strategies, Data Pre-Processing overview, Data Cleaning, Missing Value Imputation, Data Discretization. [4L]

Module II: Exploratory Data Analytics:

3. **Summary Statistics:** Measures of Central Tendency and Dispersion, Skewness and Kurtosis [4L]
4. **Data Visualization:** Pie Charts, Histograms, Bar Diagrams, Box Plots, Heat Maps, etc. [4L]
5. **Correlation:** Scatter Diagram, Karl Pearson's Correlation Coefficient, Spearman's Rank Correlation Coefficient [4L]

MODULE III: Probability and Regression:

6. **Probability Distributions:** Uniform, Normal [4L]
7. **Regression:** The Simple Linear Regression Model, Ordinary Least Squares Estimates, R-squared [4L]

MODULE IV: Clustering and Classification:

8. **Clustering:** K Means Clustering [3L]

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9. **Classification:** KNN Classification [3L]

MODULE V: Statistical Quality Control:

10. **Control Charts:** X-bar chart, R chart [3L]

11. **Acceptance Sampling:** KNN Classification [3L]

MODULE VI: Advanced Excel:

12. **Implementation:** Implementation of Exploratory Data Analysis, Correlation and Regression in Advanced Excel [5L]

References:

1. HBR Guide to Data Analytics Basics for Managers — Harvard Business Review Press
2. Business Analytics for Managers: Taking Business Intelligence Beyond Reporting by Gert H. N. Laursen & Jesper Thorlund
3. Analytics for Managers: With Excel