

MB303.4: Business Analytics

Learning Objectives: After studying Business Analytics, Students are able to:

- Have a strategic understanding of business analytics
- Take into account the relationships between this discipline and other areas of business to make holistic judgments when analyzing business situations.
- demonstrate critical thinking skills, making the intellectual connection between quantitative and qualitative tools,
- theories and context to properly and effectively solve problems and make decisions, as well as develop new and innovative business opportunities to strategically navigate the complex demands of the current and dynamic national and international business environments.

Unit – I: Overview of Business Analytics:

Introduction to Analytics, Business Process Analysis and Improvement Methods-Key process Performance Metric; Process Flow Times and Capacity Calculations..

Unit – II: SDLC

Software Development Life Cycle, Software Development Methodologies-Water fall, Iterative ,Agile, Types of software projects-Greenfield, Migration, Product Customization, Maintenance, Software Testing, Testing plans, Test Automations, Block Box and White Box Testing, IT Implementation, Software Licensing, Subscription and Sale Models, Project Development Vs Product Development.

Unit – III: UML

History of UML, its founding fathers and role of OMG (Object Management Group),UML Diagrams-UML Structure and UML Behavior Diagrams, Important UML Diagrams for IT Business Analysts, Overview of UML Structure Diagrams, Class Diagrams, Activity Diagrams, Use Case Diagrams, State Machine Diagrams, Sequence Diagrams, Deployment Diagrams, Other UML diagrams.

Risk Management, Resource Allocation, Monitoring & Control.

Unit – IV: IT Business Analysis Essentials

Activities of an IT Business Analyst, Analysis, Business Analysis, IT Business Analysis defined, Objectives of Business Analysis, Business Analysis core Concept Model, Who is an IT Business Analyst, Business Analysis Level or Views-Process, Project Enterprise and Industry, Business Analysis Frame work and Techniques, IT Business Analysis Software, IT Business Analyst

Unit – V: Data Mining and Decision Modeling:

Data Mining: Organization/Sources of Data, Importance of Data Quality, Dealing with missing or incomplete data, Data Classification, Data Mining Process, Data Mining tool XLMiner, Market Basket Analysis, Classification and Regression Tress.

Introduction to Decision Modeling: Optimization, Use of Excel to solve business problems, marketing mix, capital budgeting, portfolio optimization, Decision Making under Uncertainty, Types of problems: inventory Management, Capital Investment analysis,

Market share estimation, sensitivity analysis.

SUGGESTED READING:

1. Data Mining for Business Intelligence, Concepts, Techniques and Applications, Shmueli, D. and Bruce, P.: Wiley, Data Science for Business, Provost and Fawcett: O'Reilly.
2. Business Analytics by James Evan.
3. UML Modeling by James Rumbaugh, Grady Bouch, Ivar Jacobson, 2012 Edition.
4. Data Mining Techniques by Arun.K.Pujari, University press 2001.

Outcomes:

- Demonstrate ethical decision-making in structured or unstructured and ambiguous situations.
- Communicate technical information to both technical and non-technical audiences in speech, in writing, and graphically.
- Exhibit effective collaboration and leadership skills.