

MBG401 Business Analytics

Course Code	MBG5401	Semester	IV
Course Title	<i>BUSINESS ANALYTICS</i>		
Credits	3	Type	CORE

Employability based course imparting Analytical and problem solving skills for business management, programming skills, technical skills to use various statistical software tools

Course Description

This course provides the students an exposure to the role of analytics in business decision making. The students also learn working with R software which is quite popular and extensively used in the area of analytics.

Course Outcome

By the end of the course, students are expected to be able to gain the following learning outcomes.

Knowledge Gained:

- Overview of business analytics- types of data , its application in business
- Visualize and explore data and how it can effectively described with data modelling tools

Skills Gained:

- To understand the forecasting techniques through predictive analytics
- To familiarize with Big data Analytics

Competency Gained:

- To find solutions to business problems through prescriptive analytics and decision analysis

Course Structure

The following is a detailed syllabus.

Module I

Introduction to Business Analytics, Types of data, Integrating Analytics with business, Business Analytics for Competitive Advantage, Business Analytics Process Cycle. Machine learning.

Module II

Descriptive Analytics - Visualizing and Exploring Data-Descriptive Statistical Measures- Probability Distributions and Data Modeling -Sampling and Estimation-Statistical Inference.

Module III

Predictive Analytics-Trendlines and Regression Analysis-Forecasting Techniques- Introduction to Data Mining-Spreadsheet Modeling and Analysis- Monte Carlo Simulation and Risk Analysis.

Module IV

Prescriptive Analytics-Linear Optimization-Applications of Linear Optimization-Integer Optimization-Decision Analysis.

Module V

Market basket Analysis -Text Analytics - Introduction to Big Data-Master Data Management.

Testing & Evaluation (if any)

- Assignments
- Case analysis/ Problems
- Seminar/Project
- Discussions/ Group activity
- Internal Assessment

References

- 1.Camm, J. D., Cochran, J. J., Fry, M. J., Ohlmann, J. W., & Anderson, D. R. (2015). Essentials of Business Analytics. South Western, First edition.
- 2.Evans James R. (2017). Business Analytics. Pearson Education, Second edition.
- 3.Sandhya Kuruganti & Hindol Basu (2015). Business Analytics: Applications To Consumer Marketing. McGraw Hill Education, First edition.
- 4.Ramesh Sharda, Dursun Delen & Efraim Turban (2017). Business Intelligence: A Managerial Approach. Pearson, Fourth edition.