MET415 INTRODUCTION TO BUSINESS ANALYTICS

Syllabus

Module 1 (6 Hours)	**Introduction to Business Intelligence-** Definition, Need, and Evolution of Business Intelligence System and its components. **Introduction to Business Analytics-** Definition- Levels of Analytics – Descriptive, Predictive and Prescriptive Analytics- Application of business analytics in industries- case studies. **Transaction Processing and Analytic Processing-** Fundamentals of OLAP and OLTP **Introduction to Big Data Analytics-** Characteristics- Sources of Big Data.
Module 2 (10 Hours)	**Data-** Definition- Sources of Data- Readiness Level of Data for Analytic study- Unstructured and structured data- classification of data- Data pre-processing- Steps in data pre-processing. **Statistical Modelling for Business Analytics-** Descriptive Statistics- Measures of Central Tendency and Dispersion- Quartiles and inter-quartile range. **Regression Modelling for Inferential Statistics**- Linear Regression, Logistic Regression and Time Series Forecasting.
Module 3 (8 Hours)	**Data Warehousing:** Characteristics- Design Considerations for data warehouse- Data warehousing process- Data Lakes. **Data Mining:** Concepts - Data mining process- Applications- Software Tools. **Text and Web Analytics:** Text analytics and text mining overview - Text mining applications - Sentiment Analysis- Web mining overview- Fundamentals of Social media analytics
Module 4 (6 Hours)	**Business Reporting-** Concepts- Different types of charts and graphs- Data Visualisation and Visual Analytics **Business Performance Management:** Business performance management cycle- Performance Measurement System- Key Performance Indicators **Analytics in Business Support Functions-** Sales & Marketing, Human Resources, Financial Analytics, Production and operations analytics
Module 5 (5 Hours)	**Recent Trends, Privacy and Managerial Considerations in Analytics:** Use of Internet of Things for Business Analytics - Cloud Computing and Business Analytics- Location Based Analytics for Organisations - Issues of Legality, Privacy and Ethics- Impacts of Analytics in Organisations

Text Book

1.R. Sharda, D. Delen, and E. Turban, "Business Intelligence, Analytics, and Data Science: A Managerial Perspective", Pearson, 4th edition, 2018.

Reference Books

1.R. N. Prasad and S. Acharya, "Fundamentals of Business Analytics", Wiley, 2nd Edition, 2016

2.J. R. Evans, "Business Analytics", Pearson, 3rd Edition, 2019.

3. A. Maheshwari, "**Data Analytics**", McGraw Hill Education, 1st Edition, 2017