

**Course:** BTech**Semester:** 5**Prerequisite:** Data analytics tools like PowerBI, Different techniques of visualization and data analytics | 203105251 - Database Management System**Rationale:** Data Analytics helps small and large organizations to maximize the value of their data, unearth insights, build plans and respond in real-time to customer demand.**Teaching and Examination Scheme**

Teaching Scheme					Examination Scheme					Total
Lecture Hrs/Week	Tutorial Hrs/Week	Lab Hrs/Week	Hrs/Week	Credit	Internal Marks			External Marks		
					T	CE	P	T	P	
0	0	2	-	1	-	-	20	-	30	50

SEE - Semester End Examination, CIA - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)

Course Outcome**After Learning the Course the students shall be able to:**

1. Apply statistical measures to calculate mean, median and mode.
2. Compare and apply different regression, classification algorithm on the given dataset .
3. Perform clustering and detect outliers
4. Create an interactive data visualization dashboard using PowerBI.

List of Practical

1.	Perform Exploratory Data Analysis on the given dataset using Python.
2.	Calculate mean, median and mode of the first 50 records in the given dataset using python.
3.	Perform Multiple Linear Regression on data.
4.	Perform the Logistic Regression on a dataset.
5.	Use a dataset & apply K means clustering to get insights from data.
6.	Perform the Decision tree classification algorithm using a dataset.
7.	Study and installation of the tools like PowerBI tool for data Visualization.
8.	Load a dataset from different sources in PowerBI and apply transformations to it.
9.	Study and Plot various graphs for Data Visualization on PowerBI.
10.	Given a case study: Interactive Data Analytics with Power BI Dashboard.