



GITAM INSTITUTE OF MANAGEMENT (GIM)
Gandhi Institute of Technology and Management (GITAM)
(Declared as Deemed to be University u/s 3 of UGC Act. 1956)
Visakhapatnam – 45.

Course Code: MAN 225	Course Title: Data Visualization with Tableau	
Semester: III	Course Type: Core	Credits: 2
Home Programme(s):BBA (Business Analytics)		Batch: 2020 – 2023
Course Leader:		

Course description and learning outcomes

Data Visualization is the presentation of data in a pictorial or graphical format. Today analysts are required to deal with large amount of data. Visualization helps in presenting the data in pictorial or graphical format. Such visual representation will help in providing better insights to the decision maker. Tableau is popular visualization tool to create visual data.

Objectives

- To understand the concept and benefits of visualization
- Understand the usage of different visual encoding
- Provide hands on working with Tableau tool

On successful completion of this course, students will be able to:

	Learning Outcome	Assessment
CO1	Understand and design data visuals with different visual encodings	A1 & A2
CO2	Create different types of charts and maps in Tableau	A2 & A4
CO3	Work with User defined fields	A2,A3 & A4
CO4	Customize the presentation with different elements in Tableau	A1,A3 & A4

Course outline and indicative content

UNIT–I: Introduction to Visualization

Concept and importance of data visualization, Choosing appropriate visual encodings – ordering of items, number of distinct values, structure of visualization, Positioning - Placement and Proximity, Graphs and Layouts, Colors, Size, Text and Typography, Shape, Lines.

UNIT–II: Working with Tableau Data Source and Basic Charts

Introduction to Tableau, Connecting to Data Source: Text Files, Excel, Access, other databases, merging multiple data sources, Univariate Charts – Creating tables, bar graphs, pie charts, histograms, line charts, stacked bar graphs, box plots, Showing aggregate measures, Bivariate Charts – Creating tables, scatter plots, swapping rows and columns, adding trend lines, selecting color palettes, using dates

UNIT III: Fields, Hierarchies &Filters

Using predefined fields, calculating percentages, applying if-then logic, applying logical functions, showing totals and percentages, discretizing data, manipulating text, aggregate data. Grouping and creating hierarchies in Tableau. Creating and using Filters in Tableau.

UNIT–IV: Multivariate Charts and Maps

CO1	0	0	1	2	0	1	4
CO2	0	1	3	2	1	1	8
CO3	0	1	3	2	1	1	8
CO4	0	1	3	2	1	1	8
Target Level Max.	0	3	10	8	3	4	28

Program Outcomes

1	Ability to understand the business problems with their knowledge in different functional areas of management.
2	Integrate with structured, semi – structured and unstructured data.
3	Utilize the tools such as Microsoft Excel, SPSS, R, Weka and Tableau to solve business analytics problems.
4	Ability to apply analytics techniques to analyze and interpret the data.
5	Incorporate the descriptive, predictive and prescriptive analytics.
6	Evaluate the necessary skills and understanding to take up advanced topics in the area of analytics and thus enhance their career prospects.