



Gyanmanjari
Innovative University

Course Syllabus

Gyanmanjari Institute of Management Studies

Semester- 4 (MBA)

Subject: Data Visualization and Storytelling – MBABA14516

Type of course: Major (Core)

Prerequisite:

Students should have a basic understanding of business analytics, statistics, and reporting.

Rationale:

This course enables students to develop skills in transforming raw data into meaningful visual insights. It focuses on applying visualization principles, choosing appropriate tools, and crafting compelling data-driven stories to support effective business decision-making and communication.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks					Total Marks
CI	T	P		Theory Marks		Practical Marks		CA	
			ESE	MSE	V	P	ALA		
04	00	00	04	60	30	10	00	50	150

Legends: CI-Classroom Instructions; T – Tutorial; P - Practical; C – Credit; SEE - Semester End Evaluation; MSE- Mid Semester Examination; V – Viva; CCE-Continuous and Comprehensive Evaluation; ALA- Active Learning Activities.

4 Credits * 25 Marks = 100 Marks (each credit carries 25 Marks)

SEE 100 Marks will be converted in to 50 Marks

CCE 100 Marks will be converted in to 50 Marks

It is compulsory to pass in each individual component.



Course Content:

Sr.No	Course content	Hrs	% Weightage
1	Introduction to Data Visualization <ul style="list-style-type: none"> • Introduction & Overview of Data Visualization • Types of Data and Visualization • Visualization Principles • Visualization Tools and Software • Common Visualization Mistakes • Visualization Techniques and Charts 	15	25
2	Tools for Data Visualization <ul style="list-style-type: none"> • Microsoft Excel for Visualization • Tableau Basics • Power BI Essentials • Python Visualization Libraries • Choosing the Right Tool • Segmentation Visualization 	15	25
3	Data Storytelling Fundamentals <ul style="list-style-type: none"> • Introduction to Data Storytelling • Narrative Techniques • Visuals in Storytelling • Audience-Centric Communication • Story-Driven Dashboards 	15	25
4	Practical Applications & Reporting <ul style="list-style-type: none"> • Data Preparation for Visualization • Key Performance Indicators (KPIs) Visualization • Report Design Principles • Business Presentations 	15	25

Continuous Assessment:

Sr.No	Active Learning Activities	Marks
1	Visualization Overview Report Students will prepare a report summarizing the importance of data visualization in modern business analytics and submit it on the GMIU web portal.	10
2	Data Story Creation Students will develop a short business story using a dataset and visuals and submit the written story and charts on the GMIU web portal.	10



3	Visualization Tool Comparison Report Students will prepare a report comparing Excel, Tableau, Power BI, and Python based on usability, visualization output, and interactivity, and submit it on the GMIU Web Portal.	10
4	Visualization Errors Case Study Report Students will prepare a report based on a visit to a firm or an interview with a marketing executive, summarizing common visualization mistakes encountered in business reports, and submit it on the GMIU Web Portal.	10
5	KPI Visualization Report Students will prepare a report identifying and visualizing key performance indicators for a selected business case, explaining their significance in measuring organizational performance, and submit it on the GMIU Web Portal.	10
Total		50

Suggested Specification table with Marks (Theory): 60

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	40%	40%	10%	0%	0%	10%

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Course Outcome:

After learning the course, the students should be able to:	
CO1	Understand the fundamentals and principles of data visualization and its role in effective decision-making.
CO2	Apply visualization tools such as Excel, Tableau, Power BI, and Python to represent data meaningfully.
CO3	Develop compelling data stories using visuals, narratives, and audience-focused communication.
CO4	Design and present comprehensive dashboards and business reports that integrate storytelling with analytical insights.



Instructional Method:

The course delivery method will depend upon the requirement of content and the needs of students. The teacher, in addition to conventional teaching methods by black board, may also use any tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction. Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses. The internal evaluation will be done on the basis of Active Learning Assignment.

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in the laboratory.

Reference Books:

- [1] Knaflic, C. N. (2015). *Storytelling with data: A data visualization guide for business professionals*. Wiley.
- [2] Duarte, N. (2019). *Data story: Explain data and inspire action through story*. Ideapress Publishing.
- [3] Wexler, S., Shaffer, J., & Cotgreave, A. (2017). *The big book of dashboards: Visualizing your data using real-world business scenarios*. Wiley.
- [4] Dougherty, J., & Ilyankou, I. (2021). *Hands-On Data Visualization: Interactive Storytelling from Spreadsheets to Code*. O'Reilly Media.
- [5] Dykes, B. (2019). *Effective data storytelling: How to drive change with data, narrative and visuals*. Wiley.

