Jamia Millia Islamia
Department of Economics
Four Year Undergraduate Programme (FYUP)
(w.e.f. 2024-25)

Title: Data Visualization for Economics	
Type of course: Skill Enhancement Course (SEC)	**Code:** 24-ECO-S-104
Semester: I	**Credits:** 3

1. **Course Introduction:** There is a huge opportunity to find and share the insights contained in data. This course helps in how to use Tableau Software to convert raw data into compelling data visualizations that provide insight or allow viewers to explore the data for themselves.

2. **Course Objectives:**
   - Generate ways of communicating with data
   - Build dashboards to combine several visualizations

3. **Course Outcome:**

At the end of this course, students will
   - Students will understand the various ways in which different types of data can be visualized
   - Students will make use of the capabilities of the tableau software to make charts that are able to convey the information in the right sense
   - Students will examine the relationships that may exist between the various business variables to draw inferences about the business
   - Students will create reports, dashboards etc using tableau to communicate with the outside world

4. **Course Outline**

   The course outline is a dynamic document. Hence, the learning facilitator may change the document, if needed, in order to enhance the learning output and the same will be communicated in the class in advance.

Unit(s)	Topic(s)
UNIT I: Dashboards, Charts and Tables	Introducing Dashboard, Principles of Communicating Data, Types of Dashboards, Introduction to Tableau and Excel
	Table Design, Sparklines, Chartless Visualization, Formatting and Customizing Charts, Charts for Trending Data, Group Data and Performance Data
UNIT II: Data Model and Pivot Tables	Developing Your Data Model, Adding Interactive, M Charged Reporting, Pivot Tables, Pivot Charts, A Interactivity with Slicers, Internal Data Model and Power View, Dashboard Sharing

	Discrete and Continuous Data, Ratios and Rates, Proportions and Percentages, Mean and Median, Variation and Uncertainty, Multiple Quantities, Changes Over Time, Maps and Location, Adding Interactivity to Dashboards
UNIT III: Dashboards with Tableau	

5. **Pedagogy**

The course will involve a healthy balance of classroom discussion and experiential activities, which will generally include a mixture of lectures and hands-on learning.

6. **References**

Text Book

- Communicating Data with Tableau, Ben Jones, O'reilly, 2014
- Excel Dashboards and Reports, 2nd Edition, Michael Alexander, John Walkenbach, Wily, 2013

Additional Readings and References:

- https://www.tableau.com
- https://support.microsoft.com/en-us/excel

7. **Evaluation Details:**

Sl. No.	Component	Marks
1	Practical/ Lab Assessment	**25**
2	Final Exam	**50**