## DEPARTMENT OF ECONOMCS UNIVERSITY OF DELHI

Subject: Data Visualization

Semester: VII

Course & Code: Skill Based Course

Duration (per week): 1 lecture + 2 Practical

Date & Time 22/08/2025 at 03:00 PM

Venue: 208, Department of Economics, Delhi University

Convenor: Deepak Kumar and Satyendra Gupta

# College Teachers:

Yogesh Malhotra	Sri Venkateswara College
Namita Mathur	IP College for Women
Dr. Neha Atri	Sgndkc
Ayanik Anwesh Patra	PGDAV College (M)
Khushboo Kumari	Maitreyi College
Dr Renu Kumari Verma	Motilal Nehru College Evening
Sunita Meena	Miranda House
Rahul	Shivaji college
Dr Kanika bakshi	Dr Bhim Rao Ambedkar College
Sonika	Shyama Prasad Mukherji College for Women
Dr. Nehkholen Haokip	Shyam Lal College Evening
Dr. Bisla Devi	Shyamlal College
Suman Yadav	Shyam Lal College
Anu Singh Deswal	Sri Aurobindo College (Evening)
Neha	Vivekananda College
Akansha Gupta	St. Stephen's College
Sonali Chadha	Maharaja Agrasain College

The convenor welcomed all the members to the meetings. Th following points were discussed and agreed upon:

- Broad outline of the course was discussed and decided to divide the syllabus in three parts (outlined below under the syllabus).
- Software: All the teachers agreed to use available software with their colleges or use freely available software.
- Other assessment, such as continuous and internal assessment, will be as per university rules and guidelines.

**Note:** Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

### **Course Objectives**

To enable student's graph, plot, and map data in a way to better present their work and persuade the reader. Such a skill is highly valuable for both empirical research in academia as well as in public and private sector jobs for economists.

#### **Learning Outcomes**

The course will enable students to graph, plot, and do exploratory data analysis with data in a way to better present their work and persuade the reader. They will become familiar with freely available software for such analysis.

#### **Syllabus**

<u>Part I (05 Hours)</u>: Introduction to data types, data attributes, and data storage-formats. Introduction to freely available useful software.

<u>Part II (05 Hours):</u> From data to visualization (i.e., graphs and plots) and principles of good visual design.

Part III (05 Hours): Data wrangling and the art of persuading with data.

#### **Recommended readings**

- Healy, K. (2018). Data visualization: a practical introduction. Princeton University Press
- Claus O. Wilke. Fundamentals of Data Visualization. Online: <a href="https://clauswilke.com/dataviz/">https://clauswilke.com/dataviz/</a>
- Schwabish, J. A. (2014). An economist's guide to visualizing data. *Journal of Economic Perspectives*, 28(1), 209–234.

- United Nations Economic Commission for Europe (UNECE). (2009). Making data meaningful: Part 2. A guide to presenting statistics.
- United Nations Statistics Division. (n.d.). *Practical guide to data storytelling in Voluntary National Reviews and SDG reporting* [PDF].
- Kalita, J. K., Bhattacharyya, D. K., & Roy, S. (2023). *Data, sources, and generation* (Chapter 2). In *Fundamentals of Data Science: Theory and Practice*. Academic Press.