UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Data Visualization

2526-1-FDS02Q001-FDS02Q00102

Aims

By the end of the course, students will be able to analyze, evaluate, and design interactive infographics and narrative explanations.

Contents

This module teaches the fundamentals of data exploration, insight extraction, visualization, and storytelling, supporting interactive data analysis and adaptable reporting for organizations and data journalism.

Detailed program

By the end of the course, students will be able to:

- Select and explore datasets relevant to real-world issues.
- Formulate research questions and hypotheses based on data.
- Clean, transform, and analyze data using appropriate tools.
- Design effective and engaging data visualizations.
- Craft compelling narratives and stories from data insights.
- Understand ethical, legal, and quality considerations in data visualization.

Prerequisites

- Curiosity about data and its potential to tell stories
- Openness to collaborative learning across disciplines
- Interest in data-driven storytelling and visual communication

Teaching form

- Interactive and frontal-lessons (21 hours)
- Interactive and frontal laboratory lessons (27 hours)

Textbook and teaching resource

Cairo, A. (2016). The Truthful Art: Data, Charts, and Maps for Communication
Tufte, E. (2001). The Visual Display of Quantitative Information

Semester

First semester

Assessment method

No midterm exams or written exams.
Project Work (100% of grade):

- Students create an individual project using the provided template.
- Collaboration is allowed, but each student must analyze the dataset from a unique angle and submit their own work.
- **Developing drafts and revisions during lectures and labs is strongly encouraged to receive instructor feedback and improve the final submission.**
- Final submission: PDF presentation uploaded to the platform.

Optional Oral Exam:

- After the lecture/lab period, students may choose to redo the project and take an oral exam covering all course content.

Evaluation Criteria:
Projects will be evaluated based on:

- Alignment with the provided template
- Originality and clarity of insights
- Reliability of implementation
- Quality of methodology explanation
- Quality and effectiveness of charts

Office hours

Please send an e-mail to teacher to arrange an appointment: andrea.mauro@unimib.it

Sustainable Development Goals

QUALITY EDUCATION