



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Data Visualization

2223-2-F9201P206

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#### Aims

At the end of the course students will have acquired skills in analysis, evaluation and, to a lesser extent, development of complex and interactive infographics.

#### Contents

Velocity: data architecture for capturing and elaborating near real time data

#### Detailed program

- Introduction to the Human Data Interaction (Definitions, main concepts and methodologies)
- Data Transformation into sources of knowledge through visual representation.
- Requirements and heuristics for high-quality visualizations: dos and donts.
- Charts and standard views: relevance and appropriateness.
- Advanced and innovative tools for data visualization and advanced quantitative analysis.
- The evaluation of the quality of visualizations and infographics.
- Qualitative assessment: expert and heuristic;
- Quantitative assessment: user tasks; inferential statistical techniques.
- Validated psychometric questionnaires and their analysis and understanding.
- Elements of visual semiotics and social semiotics.

## **Prerequisites**

knowledge of relational model

## **Teaching form**

Lectures and exercises in the classroom and on virtual lab

Lectures with the support of slideware, discussion of practical cases through the forum, discussion of practical home-work projects.

Some self-assessment tests, not considered for the final evaluation will be provided

## **Textbook and teaching resource**

Yau, N. (2011). Visualize this: the FlowingData guide to design, visualization, and statistics. John Wiley & Sons.

Ware, C. (2012). Information visualization: perception for design. Elsevier.

Scientific articles and class pack provided by the lecturers.

## **Semester**

first semester

## **Assessment method**

A test and a project related to the topic of the module

## **Office hours**

Please send an e-mail to teachers to arrange an appointment

## **Sustainable Development Goals**

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