UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Economic Statistics I

2425-2-E1401A014

Learning objectives

The course is an introduction to statistics, aiming at building
the theoretical competences needed in reading a descriptive
analysis and the practical competences needed in performing one.

In particular

A) Knowledge and learning abilites
To know and to be able to interpret the fundamental synthetic descriptive measures of uni- and bivariate distributions.
To be able to read and interpret a linear regression.

B) Applied learning abilites
To be able to choose the appropriate descriptive measures and statistical arguments, in contexts relevant to the legal practice.

C) Independent judgement
To acquire independence in formulating and evaluating statistic argument related to the legal practice.

D) Communication abilities
To be able to commuicate to a diverse audience the relevant statistical arguments, in particular by proposing and presenting graphical representations.

E) Learning abilities
To be able to compare different synthrethic measures and different statistical arguments, in the application context, and to be able to fix selection criteria.

Contents

1. Descriptive statistics
2. GNU-R computational environment
3. Linear regression

Detailed program

1. data
    - collection
    - variables
    - ratios
    - distributions
    - indexes
2. descriptions
    - centrality
    - variability
    - independence
    - correlation
    - concentration
    - eterogeneity
    - asymmetry
3. models
    - linear regression
4. tools
    - GNU R

Prerequisites

Basic mathematics.

Teaching methods

- 20 two hours classes, frontal and held in presence
- 2 two hours laboratories, interactive and held remotely

Assessment methods

A written test, consisting in multiple choice questions, problems, and exercises.
The test verifies the ability to correctly organiza the computation af a synthetic measure, the ability to correctly read its results, and the fundamental theoretical notions.

Textbooks and Reading Materials

Piccolo D., Statistica per le decisioni, terza edizione, Il Mulino, 2020, ISBN 978-88-15-27220-1

Sustainable Development Goals