



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Statistica Economica

2324-2-E1401A014

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#### 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, on one side, and at introducing the basics of probability and inference, on the other.

#### Contents

1. Descriptive statistics
2. GNU-R computational environment
3. Probability calculus
4. Statistical inference

#### Detailed program

1. Introduction
2. Descriptive statistics
3. Frequency distributions
4. Position indexes
5. Variability indexes
6. Concentration indexes
7. Multivariate distributions
8. Correlation

9. GNU-R computational environment
10. GNU-R
11. GNU-R: Data
12. GNU-R: Distributions
13. Probability calculus
14. Probability axioms
15. Bayes theorem
16. Random variables
17. Probabilistic models
18. Asintotic theorems
19. Inference
20. Random samples
21. Hypothess testing
22. Confidence intervals
23. Linear model

## **Prerequisites**

Basic mathematics.

## **Teaching methods**

Classes and practical exercises.

## **Assessment methods**

Written exam.

## **Textbooks and Reading Materials**

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

## **Sustainable Development Goals**

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