

COURSE SYLLABUS

Economic Statistics I

2324-2-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, 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. Hypothesis 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, II
Mulino, 2020, ISBN 978-88-15-27220-1

Sustainable Development Goals
