



STATISTICAL MODELS FOR ECONOMICS AND FINANCE

SECS-S/01 - 9 CFU - 2° Semester

Teaching Staff

ROBERTO DI MARI

Email: roberto.dimari@unict.it

Office: stanza 28. III piano

LEARNING OBJECTIVES

1. Learn and understand the basic instruments for statistical modelling of economic and financial data.
2. Apply statistical instruments for investigating real life economic and financial phenomena.
3. Learn how to elaborate economic and financial data, interpret and report the findings.

DETAILED COURSE CONTENT

Univariate data analysis: Recap of basic statistics (undergraduate level).

Supervised statistical learning: simple and multiple linear and nonlinear regression. ANOVA models.

Unsupervised statistical learning: principal component analysis (PCA), cluster analysis, mixture models.

Applied statistics: causal inference modeling, time series regression, risk modeling and prediction.

TEXTBOOK INFORMATION

1. Slides.
 2. G. James, D. Witten, T. Hastie, R. Tibshirani. *An Introduction to Statistical Learning: with Applications in R*. Springer Science & Business Media, 2013.
 3. P. Newbold, W. L. Carlson, B. Thorne. *Statistics for business and economics*. Boston, MA: Pearson, 2013.
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