

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

### **SYLLABUS DEL CORSO**

## Statistica Economica per l'Analisi Microeconomica

2223-3-E3301M214

#### Learning objectives

The course aims to present to students some statistical techniques, in order to use them to solve decisional problems in some economic disciplines.

Particular attention is paid to methodological aspects which can be encountered in economic analyses.

#### **Contents**

Elements of inference

**Linear Models** 

Time Series

#### **Detailed program**

Prerequisites on inference. Sampling from normal distribution

Uni-variate linear regression

Bi-variate linear regression

Multivariate linear regression

Stationarity. Wold theorem
Specification of the parameters of ARIMA models
Destagionalization. Final comments
Prerequisites
Elements of asymptotic inference.
Elements of asymptotic interence.
Teaching methods
28 hours of theoretical lectures (4 cfu)
Assessment methods
Added methods
A technical report on a data set given by the teacher, written in ENGLISH or in ITALIAN, in which the SPSS code output is produced and deeply interpreted and commented, about one of the two following problems: selection of a linear model, Box-Jenkins time series. Then, a theoretical talk following these lines: to assess students' knowledge and understanding of the main concepts of the subject through theoretical questions and to test students' ability in the application of such concepts to solve simple practical problems, through the discussion of the produced output
Following the guidelines for writing a syllabus, the exam consists of a CASE ANALYSIS, the description of a real situation or example, by analyzing the connections between the different elements or variables with respet to one or mode theoretical paradigms.
Textbooks and Reading Materials
Slides in the e-learning website. Nothing offline.
Semester
Second semester.
Teaching language

Time series analysis. Introduction. Total and partial autocorrelation functions

Italian

## **Sustainable Development Goals**

QUALITY EDUCATION | INDUSTRY, INNOVATION AND INFRASTRUCTURE | SUSTAINABLE CITIES AND COMMUNITIES | RESPONSIBLE CONSUMPTION AND PRODUCTION | CLIMATE ACTION