



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Statistical Methods for Management

2324-1-F7701M093-F7701M104M

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#### Learning objectives

The course aims to present to students the statistical methods, that are typically applied to multivariate data.

#### Contents

Multivariate statistical data analysis

#### Detailed program

- Multiple linear Regression
- Principal Components Analysis
- Cluster Analysis
- Correspondences Analysis
- Discriminant Analysis

#### Prerequisites

Elements of asymptotic inference and descriptive statistics

## **Teaching methods**

35 hours of theoretical lectures, 5 cfu, in physical presence.

## **Assessment methods**

A paper (report), written in ENGLISH or in ITALIANO on an application on a data set of one or two tools presented in the course, by producing, in SPSS software, the output and developing a punctual comment on it. Then, the student will have a theoretical talk about the course program.

Following the guidelines for writing the syllabus, the exam consists of a CASE ANALYSIS, the description of a real situation or example of which the connection between different elements are discussed and analyzed with respect to one or more technical paradigms.

## **Textbooks and Reading Materials**

In Italian:

Slides in e-learning website

In English:

- G. Chow, ECONOMETRICS, Mc Graw Hill,

chapter on "general linear regression", only

- W. Hardle, L. Simar APPLIED MULTIVARIATE STATISTICAL ANALYSIS, Method & Data Technologies ed.

chapters 11, 13, 14, 15, 22 (in 2019-20 edition)

## **Semester**

Second Semester

## **Teaching language**

Italian

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | AFFORDABLE AND CLEAN ENERGY | DECENT  
WORK AND ECONOMIC GROWTH | INDUSTRY, INNOVATION AND INFRASTRUCTURE | SUSTAINABLE  
CITIES AND COMMUNITIES | RESPONSIBLE CONSUMPTION AND PRODUCTION | CLIMATE ACTION |  
PEACE, JUSTICE AND STRONG INSTITUTIONS

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