

## UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

### SYLLABUS DEL CORSO

# Introduction to statistics with R (part II): linear and logistic regression models

2122-DOTT-MOD12

#### Title

Introduction to statistics with R (part II): linear and logistic regression models

#### Teacher(s)

Davide Paolo Bernasconi

Bicocca Bioinformatics Biostatistics and Bioimag-ing Centre - B4, School of Medicine and Surgery, University of Milano Bicocca

#### Language

English

#### Short description

The course, through lectures and computer lab sessions, aims to illustrate the fundaments of statistical modeling with multiple covariates focusing on the linear and logistic regression models.

At the end of the course the participants should be able to recognize when to perform a linear or logistic regression, check the validity of the assump-tions required, fit the model to the data, correctly interpret the model coef-ficients

and evaluate the goodness of fit.

#### Course program

Day 1:

- Correlation and simple linear model
- Multiple linear model
- Lab session

Day 2:

- Introduction to generalized linear models
- Logistic regression model
- Lab session

**Target audience:** Doctoral students of any discipline who are interested in the practical application of basic statistical modeling for data analysis in scientific research

Participants (min/max): 20/40

#### CFU / Hours

1 CFU

8 hrs (4 in class + 4 in computer lab)

#### **Teaching period**

01/02/21 9 am - 1 pm LAB 908 (U9a)

03/02/21 9 am - 1 pm LAB 908 (U9a)