UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

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

2627-102R-12

Title

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

Teacher

Daniele Giardiello

Language

English

Short description

Objectives
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.
A brief overview will be provided regarding the main purposes of a statistical analysis that employs regression models: i) descriptive purpose, ii) predictive purpose, iii) causal purpose.
At the end of the course the participants should be able to recognize when to per-form a linear or logistic

regression, check the validity of the assumptions required, fit the model to the data, correctly interpret the model coefficients and evaluate the goodness of fit.

Course program
Day 1:
Brief overview of the main aims of a statistical analysis
Correlation and simple linear model
Multiple linear model
Lab session with R

Day 2:
Introduction to generalized linear models
Logistic regression model
Lab session with R

Target audience

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

Maximum number of participans

50

Assessment method

Test with multiple choice questions

CFU / Hours

1 CFU / 8 hours

Teaching period and mode

08/02/27 9.30 AM - 1.30 PM
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course registration on “Segreterie online”: from 18/01/2027 to 01/02/2027

Sustainable Development Goals

QUALITY EDUCATION