UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Introduction to statistics with R (part I): data description and basic inference

2223-DOTT-MOD10-1

Titolo

Introduction to statistics with R (part I): data description and basic in-ference

Docente(i)

Dr. Davide Paolo Bernasconi

Lingua

English

Breve descrizione

Objectives
The course, through lectures and computer lab sessions, aims to provide basics notions of statistics to plan and analyze the results of a scientific study or experi-ment.
At the end of the course the participants should be able to choose the most suit-able design for their study, compute the optimal sample size, perform a graphical and tabular description of the data collected and analyze the association between variables through proper measures and hypothesis testing.

Course program
Day 1:

- Planning a study: types of designs
- Data summaries: descriptive measures and graphical representa-tions.
- Lab session with R
  Day 2:
- Introduction to hypothesis testing
- Parametric tests for quantitative variables
- Lab session with R
  Day 3:
- Non-parametric tests for quantitative variables
- Tests for categorical variables
- Lab session with R
  Day 4:
- Correction for multiple comparisons
- Sensitivity, specificity and Lab session with R

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

Participants
Min 20 Max 40

CFU / Ore

2 CFU / 16 hrs

Periodo di erogazione

11/01/2023 9 am - 1 pm lab907 (Edificio U9 KOINE')
13/01/2023 2 pm - 6pm lab905 (Edificio U9 KOINE')
18/01/2023 9 am - 1 pm lab716 (Edificio U7 CIVITAS)
20/01/2023 2 pm - 6 pm lab907 (Edificio U9 KOINE')

course registration on "Segreterie online": from 20/12/2022 to 04/01/2023

Sustainable Development Goals

ISTRUZIONE DI QUALITÁ