Data analysis

ECTS
4 crédits

Hourly volume
58h

Introducing

Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):
- Data base organisation of R and Python data frames. Syntaxes R and Python languages. R and Python functions design, program and test.
- Statistical analyses of multidimensional data: dimension reduction and clustering with R and Python.
- Statistical interpretation of various graphical displays including the different kinds of factor analyses and clustering.

The student will be able to:
- Manage big data sets with R and Python.
- Lead exploratory data analyses of real big data. It includes univariate, bivariate and multivariate data analyses featuring PCA, MCA, FDA, NMF kmeans, mixture models, DBSCAN¿ depending on data structures and analysis purposes;
- Detect relevant structures within complex data sets and compile insightful interpretations.

Practical info

Location(s)

Toulouse

Non-contractual information