

Statistical Modelling



ECTS
4 crédits



Hourly volume
53h

Introducing

Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):

- The use of statistical tests for goodness-of-fit, independence, populations comparisons
- The characteristics of a linear model and a generalized linear model, and their use for statistical modelling

At the end of this module, the student should be able to:

- Choose a test procedure suited to a given problem
 - Build nonparametric test procedures to compare two populations
 - Build goodness-of-fit tests for a single distribution or a family of distributions
 - Choose a linear model or a generalized linear model suited to a given problem
 - Estimate the parameters in a linear model and a generalized linear model
 - Use statistical tests to validate or invalidate hypotheses on these linear models and generalized linear models.
 - Implement a variable selection strategy
 - Perform a complete statistical analysis on a real data set using a linear model or a generalized linear model
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Necessary prerequisites

Probability and Statistics (I2MIMT31)
Statistics (I3MIMT15)

Practical info

Location(s)

 Toulouse