MASTER OF SCIENCE IN WEALTH MANAGEMENT
MAÎTRISE UNIVERSITAIRE EN GESTION DE PATRIMOINE

MULTIVARIATE ANALYSIS (S411015)
M. Marc-Olivier BOLDI
6 ECTS
Semester: Spring
Teaching language: English

Objective
Upon succession of this course, the student will be able to deploy several statistical methods to appropriate analyze multivariate data

Description
This course in multivariate data analysis aims at studying several methods which helps in analyzing multivariate data. It covers a list of the classical topics in this field, namely:

- Multivariate distributions and distribution used in this context (normal, Whishart, T2, Wilk's, Student, etc.)
- Inference: Hotelling's T2, MANOVA, Box's M, etc
- Classification: discriminant analysis (linear, quadratic, Fisher)
- Clustering: hierarchical clustering, PAM's, etc.
- Factor Analyses: FA, PCA, CFA, etc.
- Correlation and dependence: correlations matrix estimations, Kendall's tau, Spearman's rho, Copulas, etc.

The list of the topics may be modified, extended or reduced according to the pace of the course.

Exercises are more than important for that course. Every topic is illustrated and practiced on the statistical computer program R.

Assessment
Written exam