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

QUANTITATIVE RISK MANAGEMENT (S413047)
Prof. Olivier SCAILLET
6 ECTS
Semester: Spring
Teaching language: English

Objective
- Deepen the understanding risk management techniques
- Implementation of risk management tools.
- Presentation of risk/financial analysis.
- Being able to conduct a case study in risk management.

Description
In the context on Basel II and Basel III regulation, risk management tools are becoming of utmost importance for financial institutions. This course will present recent development in risk management from a theoretical and practical point of view.

The first part will cover loss distributions, risk measure, risk aggregation, with a specific focus on extreme event modeling and dependence between risk factor. Statistical tool will be developed such as multivariate analysis, copulas and extreme value theory. Those techniques will be illustrated through application in financial market and credit risk for derivatives product. The seminar will cover theoretical and practical exercises.

The second part will be dedicated to group projects.

Prerequisite: Statistics, probabilities and stochastic processes.

The seminar is part of the course and mandatory

Assessment
Written exam
Final Grade = max(50% project, 40% project + 10% homeworks) + 30% presentation of chapters + 20% exam