




5.00 credits	30.0 h	Q2
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Teacher(s)	Hafner Christian ;
Language :	English > French-friendly
Place of the course	Louvain-la-Neuve
Prerequisites	Basic classes in statistics (e.g. INGE1214) and quantitative finance
Main themes	Analysis of various risks in financial and alternative markets
Learning outcomes	At the end of this learning unit, the student is able to : 1 Ability to evaluate and assess quantitative risks
Evaluation methods	Assignments (30%) and written exam (70%)
Teaching methods	Exercises for each chapter, and practical assignments, to be solved on the computer, will be used to guideline the students throughout the class. The assignments will be evaluated.
Content	This class introduces the student to the methodology used in quantitative risk management. The topics cover basic concepts in risk management, risk measures, empirical properties of financial time series, volatility and dependence models, extreme value theory. It will be focused on the statistical aspects and practical implementation of the discussed techniques.
Bibliography	Les transparents se basent principalement sur <ul style="list-style-type: none"> • Franke, J., Haerdle, W. and Hafner, C. (2012) Statistics of Financial Markets, an Introduction, 3rd edition, New York: Springer. • McNeil, A.J., Frey, R. and Embrechts, P. (2005), Quantitative Risk Management: Concepts, Techniques, and Tools, Princeton UP Series in Finance.
Faculty or entity in charge	LSBA

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Mathematics	MATH2M	5		
Master [120] in Actuarial Science	ACTU2M	5		
Master [120] in Statistics: General	STAT2M	5		
Master [120] in Mathematical Engineering	MAP2M	5		