




In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

5 credits	30.0 h	Q2
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Teacher(s)	Hafner Christian ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	Analysis of various risks in financial and alternative markets
Aims	<p>1 Ability to evaluate and assess quantitative risks</p> <p>-----</p> <p><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p>
Evaluation methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. Assignments (20%) and oral exam (80%)
Teaching methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. Several 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, multivariate models, financial time series and measures of dependence. It will be focused on the statistical aspects and practical implementation of the discussed techniques.
Bibliography	<p>Les transparents se basent principalement sur</p> <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	Aims
Master [120] in Mathematics	MATH2M	5		
Master [120] in Actuarial Science	ACTU2M	5		
Master [120] in Mathematical Engineering	MAP2M	5		
Master [120] in Statistic: General	STAT2M	5		