





5 credits

30.0 h

Q1

Teacher(s)	Platten Isabelle ;
Language :	French
Place of the course	Mons
Main themes	This course provides students with a framework : - to understand the fundamental concepts of derivative products (forward and futures, swaps, options); - to develop the necessary skills used in valuing derivative contracts (Ito's process, risk neutral valuation); - to understand a wide variety of issues related to risk management and investment decisions using derivatives.
Aims	At the end of this course, students will be able to: - Describe and interpret the general features of basic types of derivative securities, such as forward and futures contracts, swaps, options, and basic structured products. 1 - Apply the No Arbitrage Principle to price derivatives in an efficient financial market. - Price derivative securities using mathematical models and numerical methods. - Design optimal strategies to use derivative instruments for financial risk management and for financial engineering. ----- <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>
Evaluation methods	<ul style="list-style-type: none"> • Written examination (80%) • Ongoing assessment (20%) • <u>Ongoing assessment score is definitively acquired</u>
Teaching methods	Lectures, flipped classroom, exercises and case studies
Content	- Features of derivatives securities, such as forward contracts, futures, swaps and options; - Risk neutral valuation principle; - Pricing of derivatives securities, by mathematical models or by numerical methods; - Implementation of hedging strategies using derivative securities.
Inline resources	Student corner
Bibliography	Hull, Options, Futures, and Other Derivatives (10th Edition), Pearson, 2017
Faculty or entity in charge	CLSM

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [60] in Management	GESM2M1	5		
Master [120] in Business Engineering	INGM2M	5		
Master [120] in Management	GEST2M	5		
Master [120] in Management	GESM2M	5		
Master [120] in Business Engineering	INGE2M	5		