

Derivatives (EM054M5P)

Program	PGE
Course set (UE) / Credits (ECTS) / Track / Specialization	Module :Derivatives : 5 ECTS. <ul style="list-style-type: none">• MGA
Discipline	Finance
Year	2020
Semester	B
Open for visitors	no
Available spots	50

Coordinator

Marie-Hélène BROIHANNE

Lecturers

Instructor	Population	Email
Marie-Hélène BROIHANNE		mhb@unistra.fr

Course format

Working language :	English
Volume of contact hours :	27 h
Workload to be expected by the student :	108 h

Course track

Track : Attendance

Attendance track :

Attendance at lectures/tutorials and intermediate/final assessments is mandatory. As in-class work constitutes an essential element of evaluation, any unjustified absence will be penalized (*see Study and Examination Regulations*) and factored into the final grade (*see Assessment*).

Autonomous track :

Attendance at intermediate/final assessments is mandatory, but students have the option of attending lectures/tutorials.

Attendance at lectures/tutorials and intermediate/final assessments is mandatory for all degrees making up the Master's Program and all degrees involving co-op (*apprentissage*). Attendance track must therefore be selected.

Contribution of the course to the educational objectives of the program

How the course contributes to the program :

LEARNING GOAL 1 : Students will master state-of-the-art knowledge and tools in management fields in general, as well as in areas specific to the specialized field of management.

Students will identify a business organization's operational and managerial challenges in a complex and evolving environment.

Students will understand state-of-the-art management concepts and tools and use them appropriately.

Students will implement appropriate methodologies to develop appropriate solutions for business issues.

Description

This course gives a presentation of derivatives (mainly options in this course) which are actively traded on many exchanges around the world. Along with market trading mechanics, students will learn trading strategies and use of derivatives. Some basics of evaluation are also presented (arbitrage opportunities and price determinants).

Educational organisation

In class

Lectures

Presentations

Tutorials

In groups

Exercises

Learning outcomes

Upon completion of this course, students should be able to :

- **Define** derivatives
- **Recognize** arbitrage opportunities
- **Outline** regulations of derivative markets
- **Give example(s)** of derivatives use
- **Describe** market mechanics
- **Employ** and exploit trading strategies on equity options
- **Distinguish** trading strategies according to their objective (speculation, hedging...) with derivatives
- **Construct** strategies based on the call-put parity

Outline

1. Introduction
The nature of derivatives
Terminology
Use of derivatives examples
Weather, energy and insurance derivatives
2. Mechanics of options markets
Options positions and payoffs
Commissions, margins
Trading, regulations
Underlying assets
3. Properties of stock options
Types
Price determinants
Parity call-put
Early exercise
Impact of dividends
4. Trading strategies involving options
Spreads (bull-bear-box-butterfly-calendar)
Straddle-Strangle-Strip-Strap

Prerequisites

Key concepts to understand :

Basic finance and risk

Teaching material

Recommended reading

Major works :

Options, Futures, and Other Derivatives 10th Edition, Copyright © John C. Hull 2017

Further reading :

Research works by EM Strasbourg :

Assessment

Intermediate evaluation / continuous assessment 1 : 7

written (120 min) / individual / Français / weighting : 20%

additional information : Application exercises

This evaluation serves to measure LO1.1, LO1.2, LO1.3

Final assessment : exam week

written (120 min) / individual / Français / weighting : 80%

This evaluation serves to measure LO1.1, LO1.2, LO1.3

Grounds for expulsion from classes

Behaviors such as

arriving late, leaving early, or exiting the classroom at inopportune moments during class

ostentatiously eating or drinking in class

using smartphones or laptops for non-class-related purposes

reading texts unrelated to the course

discussing topics unrelated to the course

disrespecting the lecturer

may lead to expulsion from the class/course.