Derivatives (EM054M5P)

Program	PGE
Module / ECTS / Path / Specialisation	**Module :Derivatives : 5 ECTS.** • MGA
Discipline	Finance
Year	2019
Semester	B
Open for visitors	yes (**5** ECTS)
Available places	40

Coordinator

Marie-Hélène BROIHANNE

Lecturers

Instructor	Population	Email
Marie-Hélène BROIHANNE	Population	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 lecture / tutorial classes and intermediate / final exams is mandatory. As evaluation of in class work constitutes an essential element of grading, any absence will be penalized and is taken into account for grading purposes (see academic rules and regulations).

"Autonomous" track :
Attendance at intermediate / final exams is mandatory, but students are free to attend lecture / tutorial classes.

For all Master programs and all other programs realized in the form of dual internships (apprentissage), attendence at lecture / tutorial classes and intermediate / final exams is entirely mandatory. Therefore, only the "Attendance" track can be selected.

Contribution of the course to the educational objectives of the programme

How the course contributes to the programme :

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 stratgies 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 exercices
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

Such behaviors as...

arriving late, leaving early or unannounced leaving of the classroom during class time

disruptive eating or drinking in class

using smartphones and laptops for non class-related purposes

reading non class-related documents

chatting on non class-related issues

showing disrespect towards lecturers

... may lead to expulsion from classes.