

City University of Hong Kong

Information on a Course
offered by the Department of Economics and Finance
with effect from Semester B in 2014/ 2015

Part I

Course Title: Option Pricing

Course Code: EF5210

Course Duration: 1 semester (39 hours)

Credit Units: 3

Level: P5

Medium of Instruction: English

Prerequisites: EF5050 Derivative and Risk Management (Not Applicable to MSMFAS Programme)

Precursors: MA5182 Mathematical Methods in Finance

Equivalent Courses: Nil

Exclusive Courses: Nil

Part II

Course Aims

This course aims to develop students' analytical and quantitative skills in derivatives pricing models.

Course Intended Learning Outcomes (CILOs)

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

No.	CILOs	Weighting (if applicable)
1.	Describe the idea of no-arbitrage pricing of options, and assess its practicality in real market	
2.	Compare a variety of option pricing models, and apply or integrate the analytics to real market products	
3.	Identify the key features of derivative products on different asset classes	
4.	Analyse the pricing of nonstandard features in real-world exotic options, and design effective analytical and numerical solutions	

Teaching and Learning Activities (TLAs)

(Indicative of likely activities and tasks designed to facilitate students' achievement of the CILOs. Final details will be provided to students in their first week of attendance in this course)

CILO No.	TLAs	Hours/week (if applicable)
CILO 1	Lectures and class discussions	3
CILO 2	Lectures and class discussions	3
CILO 3	Lectures and class discussions	3
CILO 4	Lectures and class discussions	3

Assessment Tasks/Activities

(Indicative of likely activities and tasks designed to assess how well the students achieve the CILOs. Final details will be provided to students in their first week of attendance in this course)

CILO No.	Type of Assessment Tasks/Activities	Weighting (if applicable)	Remarks
CILO 1	Assignments and examination questions		
CILO 2	Assignments and examination questions		
CILO 3	Assignments and examination questions		
CILO 4	Assignments and examination questions		

In assignments, students should be able to apply the analytics, design numerical procedure, and

Assessment Methods

	Coursework	Final Exam	Total
CILO 1-4	50%	50% (one 3-hour exam)	100%

Students are required to pass both coursework and examination components in order to pass the course.

Grading of Student Achievement:

According to the defined grading criteria in Academic Regulations for Taught Postgraduate Degrees.

Part III**Keyword Syllabus**

Exotic Options. American Options. Interest Rate Models. Risk Neutral Pricing. Numerical Methods in Derivatives pricing.

Recommended Reading**Text(s)**

John C. Hull, Options, Futures, and Other Derivatives, Prentice Hall (ISBN 0-13-046592-5).

P. Wilmott, Paul Wilmott Introduces Quantitative Finance, Wiley.