FB530 – Derivatives and Financial Engineering

THE CYPRUS INTERNATIONAL INSTITUTE OF MANAGEMENT
COURSE UNIT DESCRIPTION

Course Unit Title	Derivatives and Financial Engineering	
Course Unit Code	FB530	
Type of Unit	Core	
Level of Course Unit	Second cycle	
Year of Study	First / second year	
Semester	On demand	
Number of ECTS Credits	6.0 ECTS	
Class Contact Hours	28	
Minimum Learning Effort (In Hours)	112	
Course Unit Objectives	The aim of this course is to provide market participants with an in-depth knowledge of the structure and mechanics of the derivatives market/products, as well as the tools needed to price these instruments. A derivative is a financial instrument whose value is derived from some other, more basic, underlying asset (stock, bond, commodity, etc.). In the last 40 years or so and since the inception of the famous Black-Scholes option pricing formula (1973), these markets have experienced tremendous growth and innovation. If derivatives products are used properly, they can be extremely useful for hedging (limiting) risk exposure. Unfortunately, the improper use of these instruments, namely for speculation, has led to a wide criticism and accusations among market participants and policy makers, especially in light of the recent global financial crisis. Thus a deep understanding of derivatives is imperative for all finance professionals.	
Learning Outcomes	The students completing the course should be able to	
	CILO 1	Acquire a thorough overview of the structure and mechanics of the derivatives markets
	CILO 2	Recognise the characteristics of derivative contracts, such as futures, forwards, options and swaps
	CILO 3	Recognise the various ways these assets can be employed
	CILO 4	Recognise how to value these contracts
Name of Lecturer(s)	Dr. George Theocharides	
Mode of delivery	Face to Face	
Prerequisites or co-requisites	None	
Course Content	1. Introduction to Derivatives/Mechanics of Futures and Forward Markets 2. Hedging Strategies using Futures/Determination of Forward and Futures Prices 3. Mechanics of Option Markets	

	4. Properties of Stock Options/Option Valuation 5. Trading Strategies Involving Options 6. Swaps 7. Case Presentations
Recommended or required reading	Lecture notes will be available on Moodle. A recommended (optional) textbook for the course is "Options, Futures, and Other Derivatives", by John C. Hull, 10th edition, Pearson Prentice Hall, 2018. This is the one of the most widely and recognized book for Derivatives courses. It contains a nice discussion of all the topics that we will be covering in class, with numerous examples, illustrations, and end-of-chapter problems and questions. The book's website (http://www-2.rotman.utoronto.ca/~hull/ofod/) includes extra resources for the interested students. You will also receive a course package that will include the required case and optional extra readings. I also encourage you to read daily the Wall Street Journal/ Financial Times or some other financial newspaper (Financial Mirror is an excellent source for local news).
Planned learning activities and teaching methods	Lectures, in-class assignments, in-class debates and discussion, presentations
Assessment methods and criteria	10% Participation 30% Case presentation 60% Final exam
Language of Instruction	English
Work Placement(s)	Not applicable