



COURSE UNIT DESCRIPTION

<b>Course Unit Title</b>	Derivatives and Financial Engineering	
<b>Course Unit Code</b>	FB530	
<b>Type of Unit</b>	Core	
<b>Level of Course Unit</b>	Second cycle	
<b>Year of Study</b>	First / second year	
<b>Semester</b>	On demand	
<b>Number of ECTS Credits</b>	6.0 ECTS	
<b>Class Contact Hours</b>	28	
<b>Minimum Learning Effort (In Hours)</b>	112	
<b>Course Unit Objectives</b>	<p>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.</p>	
<b>Learning Outcomes</b>	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
<b>Name of Lecturer(s)</b>		
<b>Mode of delivery</b>	Face to Face	
<b>Prerequisites or co-requisites</b>	None	
<b>Course Content</b>	<ol style="list-style-type: none"> <li>1. Introduction to Derivatives/Mechanics of Futures and Forward Markets</li> <li>2. Hedging Strategies using Futures/Determination of Forward and Futures Prices</li> <li>3. Mechanics of Option Markets</li> <li>4. Properties of Stock Options/Option Valuation</li> </ol>	

	5. Trading Strategies Involving Options 6. Swaps
<b>Recommended or required reading</b>	Lecture notes will be available on Moodle. A recommended (optional) textbook for the course is “Options, Futures, and Other Derivatives”, by John C. Hull, 9th edition, Pearson Prentice Hall, 2014.
<b>Planned learning activities and teaching methods</b>	Lectures, in-class assignments, in-class debates and discussion, presentations
<b>Assessment methods and criteria</b>	60%: Final Exam 30% In class examination (mainly on Options, Strategies and Binomial Model). 10% Class Participation and Professionalism
<b>Language of Instruction</b>	English
<b>Work Placement(s)</b>	Not applicable