



Course Syllabus

Course Title:	Financial Derivatives
Teaching hours:	2 hours of lectures + 2 hours of seminars
General objective:	<i>The objective of this course is to introduce and familiarise students with derivatives as specific financial instruments used for hedging and speculation. Main categories will be presented (options, futures, forwards, swaps) with their distinctive features and practical examples, focusing on the most used ones (options and futures). The course is intended for those without prior knowledge of these instruments, at the introductory to intermediate level.</i>
Topics:	<ol style="list-style-type: none">1 Introduction. Financial derivatives in general. Brief overview of historical development. Financial markets; exchanges vs OTC. Market participants: their characteristics, roles and expectations.2 Options 1. Distinct features of four key positions (long call, short call, long put, short put). Types of options. Mechanics of option markets.3 Options 2. Options premium and profitability calculation. Components of options' price. Options on stock indices and currencies.4 Options 3. Strategies with options: simple and complex. Establishing expected profit and loss profiles. Graphing possible outcomes. Futures options.5 Options 4. Options pricing models: historical overview and Black-Scholes-Merton. Put-call parity. "The Greeks".6 Futures 1. Futures contracts. Elements of the trading system: margins, leverage, central counterparty and clearing house, market mechanics.7 Futures 1. Hedging strategies using futures. Normal and inverted markets; backwardation and contango.8 Forwards, Forward contracts. FX forwards. Forward rate design. Determination of forward and future prices.9 Swaps, Swap contracts: features and logic. Interest rate and currency swaps. Examples.10 Securitization and credit derivatives. Credit default swaps and collateralized debt obligations.11 Challenges with derivatives. Housing market. Financial derivatives in crisis of 2008. Derivatives mishaps.12 Virtual online trading. Internet trading platforms. Technical analysis.13 Case Study 1. Analysis of a specific local case of derivatives use and application, within a real-world setting.14 Case Study 2. Analysis of a specific local case of derivatives use and application, within a real-world setting.