



UGSM-MONARCH BUSINESS SCHOOL SWITZERLAND

Advanced Derivatives Pricing - FIN610

Course Outline

PROFESSOR: Dr. Christophe Schinckus, Ph.D.

COURSE OBJECTIVES

This course provides both theory and a working knowledge of futures, options, swaps and exotic options. While the theoretical part of the course will present the fundamental pricing principle of pricing derivatives, the practical part will focus on the different derivatives contracts and their valuation techniques. A last part of the course will present specific advanced derivatives such as weather or earthquake derivatives.

STUDENT LEARNING OUTCOMES

By the end of the course, students will be familiar with a working knowledge of:

- Trading in different derivatives such as options, futures, swaps or exotic options
- Principles of valuation of such products
- How to use such products for managing portfolio risks
- Fundamentals of specific advanced derivatives

TEXTBOOK AND CASEBOOK REQUIREMENTS

- "Options, Futures and Other Derivatives Securities", 7th Ed. John C.Hull, Prentice Hall, 2008

The course is based on the textbook material but other material such as case-studies or research papers may be available or referenced where appropriate.

EVALUATION

The evaluation will consist of:

1.	An assignment covering specific chapter material related to fundamentals of derivatives	40%
2.	An assignment covering specific chapter material related to advanced perspective on derivatives	40%
3.	A personal analysis of a research paper	20%
	Total	<hr/> 100%

SCHEDULE

The course is based on three parts as shown below:

Part 1: Fundamentals of Derivatives

- Fundamentals of Forwards and Futures (chap 1 and 2)
- Pricing Futures (chap 5)
- Currency swaps (chap 7)
- Fundamentals of Options (chap 8 and 9)
- Trading strategies (chap 10)

Part 2: Advanced Perspectives on Derivatives

- Binomial Options Pricing Models (chap 11)
- Black and Scholes Option Pricing Model (chap 13)
- Options on indices, currencies and futures (chap 15 and 16)
- The Greek Letters (chap. 17)

Part 3: Research in Investments

- Exotic options (chap 24)
- Weather and earthquakes options (research papers)