

COURSE SPECIFICATION DOCUMENT

Academic School/Department: Richmond Business School

Programme: Finance and Investment

FHEQ Level: 6

Course Title: Derivatives

Course Code: FNN 6102

Total Hours: 160

Timetabled Hours: 45

Guided Learning Hours: 15

Independent Learning Hours: 100

Credits: 16 UK CATS credits
8 ECTS credits
4 US credits

Course Description

This course provides an analysis of financial economics of exchange-traded futures and options and selected over-the counter derivatives. The course covers areas which include the market structures of the futures and options markets, the valuation of futures and options contracts, as well as their use in global risk management strategies.

Prerequisites: FNN 5200 or FNN 5205

Aims and Objectives:

This Course critically analyses the nature and role of exchange-traded and over-the-counter derivatives. While there is some coverage of the market structures of the futures and options markets, the main focus is on valuation techniques, especially for futures and options contracts, and the use of derivatives in global risk management strategies.

Programme Outcomes

Finance and Investment: A2, B1, B2, B4, C1, C2, D1, D2, D4, D5

A detailed list of the programme outcomes is found in the Programme Specification. This is maintained by Registry and located at:

<https://www.richmond.ac.uk/programme-and-course-specifications/>

Learning Outcomes:

Upon completion of this course, a successful student should be able to

Knowledge and Understanding

1. Develop a robust understanding of the nature and role of financial and non-financial derivatives.
2. Develop the skills to apply basic valuation techniques to the pricing of derivatives.
3. Understand the strengths and weaknesses of derivatives as a risk-management tool.
4. Understand how to identify and measure derivative risk.
5. Critically analyse a broad range of trading strategies in the derivatives markets.

Cognitive Skills

1. Understanding the language and jargon of derivatives.
2. Understanding clearly the nature and role of derivatives in risk management.
3. Understanding the various tools and techniques employed in the valuation of derivatives.
4. To compare and contrast the use of different forms of derivative, including what can go wrong and why.

Practical and/or Professional Skills

1. Quantitative and IT skills including the use of highly technical valuation techniques.
2. The ability to use Excel and a financial calculator for derivatives valuation
3. To be able to compare and contrast the use of different derivatives as hedging tools, and to offer recommendations.

Key Skills

1. Effective communication skills via a range of media.
2. Ability to develop strong analytical skills through listening, discussion and reflection.

Indicative Content:

1. Introduction to the nature and role of derivatives.
2. Forward contracts and futures contracts, including valuation techniques and hedging strategies.
3. Interest rate derivatives, including zero rates and the term structure of interest rates.
4. Options: basic trading strategies and valuation (Black-Scholes, Binomial).
5. Options: stock index options, options on futures, etc.
6. Risk and volatility: "Greeks".
7. Value at Risk (VAR).

8. Should derivatives be regulated?

Assessment:

This course conforms to the University Assessment Norms approved at Academic Board and are located at <https://www.richmond.ac.uk/university-policies/>

Teaching Methodology:

Semi-formal bi-weekly presentation of material in lecture format interspersed with discussion and in-course calculations. Supplemented with a rigorous set of readings and some audio-visual material. Full use of IT, particularly Excel, but also including social media and podcasts, is encouraged and supported. Individual or group supervisions will be provided for the set projects/assignments.

Bibliography:

Ivan K. Cohen (2005) *Focus on Financial Management*. Imperial College Press

David A. Dubofsky and Thomas W. Miller, Jr. (2003) *Derivatives: Valuation and Risk Management*, Oxford University Press

Roger C. Gibson (2008) *Asset Allocation: Balancing Financial Risk*, fourth edition. McGraw-Hill

John C. Hull (2010) *Options, Futures, and Other Derivative Securities* (seventh edition), Pearson

Nicholas Taleb Nassim (2007), *Fooled by Randomness: The Hidden Role of Chance in Life and in the Markets*. Penguin Books

George Soros (2008) *The New Paradigm for Financial Markets: The Credit Crisis of 2008 and What It Means*. Public Affairs

Journals

Derivatives Quarterly

Derivatives: Use, Trading and

Regulation Euromoney

Futures & Options World

International Journal of Financial Markets and

Derivatives Institutional Investor

Journal of Derivatives

Web Sites

The Economist

(www.economist.com) *The*

Financial Times (www.ft.com) *The*

Wall Street Journal (wsj.com)

Briefing Notes in Economics (www.richmond.ac.uk/bne)

Yahoo!'s Listings

(dir.yahoo.com/Business_and_Economy/Finance_and_Investment/Futures_and_Options) Specialised Derivatives Journals

(www.bus.lsu.edu/academics/finance/faculty/dchance/Research/ReadingList.htm)

The International Monetary Fund (IMF) (www.imf.org)

The Bank for International Settlements (BIS)

(www.bis.org) Google Finance

(www.google.co.uk/finance?tab=we)

CNBC (www.cnbc.com)

Global Financial Data _____

(www.globalfinancialdata.com/index.html) NYSE Derivatives

(globalderivatives.nyx.com)

CME Group (www.cmegroup.com)

Xe.com (currency data and news)_____

(www.xe.com) OANDA (forex data)

(www.oanda.com)

Easy Forex™ ([www.easy-](http://www.easy-forex.com/en/Main.aspx)

[forex.com/en/Main.aspx](http://www.easy-forex.com/en/Main.aspx)) OzForex

(www.ozforex.com.au)

The Risk Institute (riskinstitute.ch)

Classic Financial Scandals (www.ex.ac.uk/~RDavies/arian/scandals/classic.html)

Social Science Information Gateway (www.sosig.ac.uk/economics)

WebEc: World Wide Web Resources in Economics

(netec.mcc.ac.uk/WebEc.html) The CIA Factbook

(www.cia.gov/cia/publications/factbook/index.html)

Please Note: The core and the reference texts will be reviewed at the time of designing the semester syllabus

Change Log for this CSD:

Nature of Change	Date Approved & Approval Body (School or LTPC)	Change Actioned by Academic Registry
Credits, hours, methodology	Jan 22 AB	
Revision – annual update	May 2023	
Total Hours Updated	April 2024	