

DEREE COLLEGE SYLLABUS FOR: FN 4330 DERIVATIVE PRODUCTS
(Previously FN 4530)

3/0/3

(Spring 2016)

UK LEVEL 6
UK CREDITS: 15

PREREQUISITES:

FN 2028 Financial Mathematics **or** FN 3005 Foundations of Corporate Finance
FN 3032 Foundations of Investment
FN 3113 Corporate Finance

CATALOG DESCRIPTION:

This course discusses and evaluate the role of derivative securities in managing risk, as well as the general principles underlying the pricing and valuation of derivative securities

RATIONALE:

In recent years there has been a significant growth of markets for futures contracts and options. Employing these instruments, firms and portfolio managers hedge risk and/or alter the distribution of the returns on their portfolios thus benefiting investors.

LEARNING OUTCOMES:

As a result of taking this module, the student should be able to:

1. Discuss the main characteristics of derivatives products and assess the limitations of derivative markets.
2. Explain the role of arbitrage and construct simple derivative securities' strategies to hedge various risks and reflect on the need for their use in hedging risk.
3. Demonstrate knowledge of pricing of derivatives products, and interpret the emerging payoffs.
4. Valuation of alternative derivative products through applying the appropriate theory.

METHOD OF TEACHING AND LEARNING:

In congruence with the teaching and learning strategy of the college, the following tools are used:

- Class lectures and seminar-style class discussion of key terms and concepts with appropriate examples. Use of case studies.
- Office hours: students are encouraged to make full use of the office hours of their instructor, where they can ask questions, see their exam paper, and/or go over lecture material.
- Use of Blackboard
- Guest lectures
- Field visits (students engagement/project involvement)

ASSESSMENT:

Summative:

First Assessment: Individual Coursework (1,400-1,800) words	40
Individual component 80% Presentation component 20%	
Second Assessment: In-class written examination (Two-hour, closed-book, problems/essays combination)	60

Formative:

Case studies, assignment preparation	0

The formative assessment aims to prepare students for the summative assessments.

1st Ass: Project tests Learning Outcome: 1, 2

2nd Ass: Final tests Learning Outcomes: 1, 2, 3 and 4 with emphasis placed on 3 and 4

INDICATIVE READING:	REQUIRED READING: Hull, J. C. (2014). <i>Fundamentals of Futures and Options Markets</i> . Prentice Hall, 8 th ed. RECOMMENDED READING: <ul style="list-style-type: none"> ▪ Black, F. (1975). Fact and Fantasy in the use of Options. <i>Financial Analysts Journal</i>, Vol., 31 (4) 36-72 ▪ Black, F. S. (1989). How we came up with the Option Formula. <i>Journal of Portfolio Management</i>, Vol., 15 (2), 4-8. ▪ Bookstaber, R.; Clarke R., (1981). Options can alter portfolio return distributions. <i>Journal of Portfolio Management</i>, Vol., 7 (3), 63-70 ▪ Figelman, I. (2008). Expected Return and Risk of Covered Call Strategies. <i>The Journal of Portfolio Management</i>, Vol., 34, 81-97 ▪ Jorion, P. (2000). Risk management lessons from Long-Term Capital Management. <i>European Financial Management</i>, Vol. 6, (3), p277 ▪ Labuszewski et all, (2010). <i>The CME Group Risk Management Handbook: Products and Application</i>. CME Group, 1st ed. ▪ McDonald, R. (2013). <i>Derivatives Markets</i>. Pearson, 3rd ed. ▪ Merton, R. C. (1973). The Relation between Put and Call option prices: Comment. <i>Journal of Finance</i>, Vol., 2, 183-184. ▪ Moriarty, E., Phillips, S. and Tosini, P. (1981). A comparison of options and futures in the management of portfolio risk. <i>Financial Analysts Journal</i>, Vol 37, Issue 1 ▪ Strong R., and Dickinson A. (1994). Forecasting Better Hedge Ratios. <i>Financial Analysts Journal</i>, Vol., 50 (1), 70-72.
INDICATIVE MATERIAL: (e.g. audiovisual, digital material, etc.)	N/A
COMMUNICATION REQUIREMENTS:	<ul style="list-style-type: none"> ▪ Use of Blackboard CMS. ▪ Use of word processing, Excel and presentation software for documentation of assignments. ▪ Participation in class discussions should be delivered in a professional manner, using proper English communication skills.
SOFTWARE REQUIREMENTS:	MS Office, Internet, Blackboard Financial Data Bases.
WWW RESOURCES:	<ul style="list-style-type: none"> ▪ Students are expected to use the internet at their own discretion to select information on the individual project. Databases available through the ACG library ▪ CME Group - www.cmegroup.com ▪ CBOE - http://www.cboe.com/learncenter/default.aspx ▪ Futures Magazine – www.futuresmag.com ▪ Financial Times - www.ft.com ▪ Reuters - www.reuters.com ▪ Bloomberg – www.bloomberg.com
INDICATIVE CONTENT:	<ul style="list-style-type: none"> ▪ Futures, Forwards, Options, ▪ Swaps Pricing and Valuation. ▪ Quantitative methods to measure and manage risk ▪ The Cost of Carry Model, ▪ Arbitrage Pricing, ▪ Stock Index Futures, ▪ Hedging with Futures Black-Scholes, ▪ Binomial Pricing, ▪ Credit risk and credit derivatives