FNCE30007 Derivative Securities

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: January, Parkville - Taught on campus. Semester 1, Parkville - Taught on campus. Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: Two 1-hour lectures and a 1-hour tutorial per week; Summer semester: Twenty-four hours of lectures and twelve hours of tutorials Total Time Commitment: Not available
Prerequisites:	**333-201 Business Finance (/view/2010/333-201)** and one of **316-205 Introductory Econometrics (/view/2010/316-205)** , **316-206 Quantitative Methods 2 (/view/2010/316-206)** , **620-202 Statistics (/view/2010/620-202)** , **620-270 Applied Statistics (/view/2010/620-270)** , **620-201 Probability (/view/2010/620-201)** , **620-205 Probability for Statistics (/view/2010/620-205)** , **620-261 Introduction to Operations Research (/view/2010/620-261)** (2008 or earlier), **620-290 Discrete Mathematics and Operations Research (/view/2010/620-290)** , or **620-293 Engineering Mathematics (/view/2010/620-293)** .
Corequisites:	None
Recommended Background Knowledge:	Please refer to Prerequisites and Corequisites.
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering requests for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements for this entry.The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Dr Ali Akyol, Dr Jonathan Dark
Contact:	**aakyol@unimelb.edu.au (mailto:aakyol@unimelb.edu.au)**
Subject Overview:	This subject focuses on the application and valuation of derivative securities, such as forwards, futures, swaps and options. The emphasis will be on arbitrage relations, valuation, and hedging with derivatives. The topics covered include; Forwards and futures: the mechanics of trading, price determination, hedging strategies; Swaps: definition and valuation; Options: payoffs, arbitrage bounds, trading strategies, the binomial model, the Black-Scholes model and its relationship to the binomial, hedging, American options and dividends, options on futures, limitations of the binomial and Black-Scholes Models.
Objectives:	On successful completion of this subject students should be able to: # Explain the role of derivatives exchanges and the characteristics of derivative securities; # Explain the role of arbitrage as a basis for determining the prices of derivative securities; # Explain the mechanics of trading futures contracts, forward contracts and options; # Design and manipulate payoff diagrams for various derivative securities; # Calculate option prices using the Black-Scholes and binomial models; # Explain how derivative securities can be used in hedging; # Reflect on the theoretical limitations of key derivatives pricing models and on practical difficulties that arise in their implementation.

Assessment:	A 3-hour end-of-semester examination (70%) and a 1-hour mid-semester test (30%).
Prescribed Texts:	You will be advised of prescribed texts by your lecturer.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2010/B-ARTS)** # **Bachelor of Biomedicine (https://handbook.unimelb.edu.au/view/2010/B-BMED)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2010/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2010/B-MUS)** # **Bachelor of Science (https://handbook.unimelb.edu.au/view/2010/B-SCI)** # **Bachelor of Engineering (https://handbook.unimelb.edu.au/view/2010/355AA)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	# High level of development: problem solving; statistical reasoning; application of theory to practice; synthesis of data and other information; evaluation of data and other information. # Moderate level of development: written communication; interpretation and analysis; critical thinking; use of computer software. # Some level of development: oral communication; collaborative learning; team work; accessing data and other information from a range of sources.