ACTL90002 Mathematics of Finance II

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: A 2 hour seminar and a 1 hour workshop per week Total Time Commitment: Estimated total time commitment of 120 hours per semester
Prerequisites:	ACTL90001 Mathematics of Finance I

Subject	Study Period Commencement:	Credit Points:
ACTL90001 Mathematics of Finance I	Semester 1	12.50

Corequisites:	None
Recommended Background Knowledge:	Students should be competent in the use of Excel.
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:	Mr Zhuo Jin
Contact:	Graduate School of Business and Economics Level 4, 198 Berkeley Street Telephone: +61 3 8344 1670 **Online Enquiries (https://nexus.unimelb.edu.au/OnlineEnquiryForm.aspx?campaigncode=CMP-01311-VZ8293&cssurl=https://nexus.unimelb.edu.au/cssfiles/gsbe.css&redirecturl=http://www.gsbe.unimelb.edu.au/contactus/nexus/gsbe.html)** Web: **www.gsbe.unimelb.edu.au (http://www.gsbe.unimelb.edu.au/)**
Subject Overview:	Topics include: measures of investment risk, portfolio theory, models of asset returns, asset liability modelling, equilibrium models, the efficient markets hypothesis, stochastic models of security prices, and Brownian Motion and its application.
Objectives:	On successful completion of this subject a student should be able to: # Discuss the advantages and disadvantages of different measures of investment risk; # Describe and discuss the assumptions of mean-variance portfolio theory and its principal results; # Describe and discuss the properties of single and multifactor models of asset returns; # Describe asset pricing models, discussing the principal results and assumptions and limitations of such models; # Discuss the various forms of the Efficient Markets Hypothesis and discuss the evidence for and against the hypothesis; # Demonstrate a knowledge and understanding of stochastic models of the behaviour of security prices; # Define and apply the main concepts of Brownian motion (or Wiener Processes).

Assessment:	An assignment of up to 1,000 words (10%)One hour mid-semester test (20%) Two hour end of semester exam (70%)
Prescribed Texts:	You will be advised of prescribed texts by your lecturer.
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	High level of development: # Written communication; # Problem solving; # Statistical reasoning; # Application of theory to practice; # Interpretation and analysis.
Related Course(s):	Master of Actuarial Science Postgraduate Diploma in Actuarial Science