

ACTL40008 Advanced Financial Mathematics II

Credit Points:	12.50						
Level:	4 (Undergraduate)						
Dates & Locations:	This subject is not offered in 2014.						
Time Commitment:	Contact Hours: Three hours of lectures and/or tutorials per week Total Time Commitment: Not available						
Prerequisites:	<p>The following:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ACTL40004 Advanced Financial Mathematics I</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	ACTL40004 Advanced Financial Mathematics I	Semester 1	12.50
Subject	Study Period Commencement:	Credit Points:					
ACTL40004 Advanced Financial Mathematics I	Semester 1	12.50					
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/						
Contact:	mark.joshi@unimelb.edu.au (mailto:mark.joshi@unimelb.edu.au)						
Subject Overview:	No-arbitrage pricing in continuous-time models. Completeness. Fundamental Theorem of Asset Pricing. Applications of martingales. Multidimensional Brownian motion in asset price models. Other asset price models. Pricing of path-dependent options. Computation methods.						
Learning Outcomes:	<p>Students completing this subject should</p> <ul style="list-style-type: none"> # know how to derive the Black-Scholes formula; # be familiar with the behaviour and computation of option prices; # be able to apply multidimensional Brownian motion in finance and insurance; # know some of the alternatives to Brownian motion in securities modelling; # be able to apply those techniques to actuarial problems. 						
Assessment:	A 50-minute mid-semester test (20%) and a 2-hour end of semester examination (80%).						
Prescribed Texts:	You will be advised of prescribed texts by your lecturer.						
Recommended Texts:	Information Not Available						
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; critical thinking.						

Some level of development: synthesis of data and other information; evaluation of data and other information.