

ACTL30003 Contingencies

Credit Points:	25						
Level:	3 (Undergraduate)						
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.						
Time Commitment:	Contact Hours: Six hours of lectures and/or tutorials per week Total Time Commitment: Estimated total time commitment of at least 340 hours.						
Prerequisites:	The following: <table border="1" data-bbox="389 573 1485 719"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ACTL30001 Actuarial Modelling I</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	ACTL30001 Actuarial Modelling I	Semester 1	12.50
Subject	Study Period Commencement:	Credit Points:					
ACTL30001 Actuarial Modelling I	Semester 1	12.50					
Corequisites:	None						
Recommended Background Knowledge:	Please refer to Prerequisites and Corequisites.						
Non Allowed Subjects:	Students may not gain credit for both ACTL30003 Contingencies (../view/current/actl30003) and either of 300-341 Actuarial Mathematics I and 300-342 Actuarial Mathematics II.						
Core Participation Requirements:	<p><p>For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.</p> <p>It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability</p></p>						
Coordinator:	Dr Ping Chen						
Contact:	pche@unimelb.edu.au (mailto:pche@unimelb.edu.au)						
Subject Overview:	Topics include traditional life insurance products; present values of annuities and assurances for single lives; net and gross premiums and policy values; select mortality; joint life theory; cashflow models; competing risks; discounted emerging costs; multiple decrements; guarantees and options; risk classification.						
Learning Outcomes:	<ul style="list-style-type: none"> # Define simple assurance and annuity contracts, and develop formulae for the means and variances of the present values of the payments under these contracts, assuming constant deterministic interest. # Describe practical methods of evaluating expected values and variances of the simple contracts defined in the above objective. # Describe and calculate, using ultimate or select mortality, net premiums and net premium reserves of simple insurance contracts. # Describe the calculation, using ultimate or select mortality, of net premiums and net premium reserves for increasing and decreasing benefits and annuities. # Describe the calculation of gross premiums and reserves of assurance and annuity contracts. # Define and use straightforward functions involving two lives. # Describe methods which can be used to model cashflows contingent upon competing risks. 						

	<ul style="list-style-type: none"> # Describe the technique of discounted emerging costs, for use in pricing, reserving, and assessing profitability. # Describe the principal forms of heterogeneity within a population and the ways in which selection can occur.
Assessment:	One three-hour end of semester exam (70%) and one major project (30%) which is no more than 3000 words and is due at the end of semester
Prescribed Texts:	You will be advised of prescribed texts by your lecturer.
Recommended Texts:	Actuarial Mathematics for Life Contingent Risks, Dickson Hardy Waters, 2013 2nd edition
Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2016/B-ARTS) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2016/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2016/B-MUS) <p>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.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<ul style="list-style-type: none"> # High level of development: written communication; problem solving; statistical reasoning; application of theory to practice; interpretation and analysis; synthesis of data and other information; evaluation of data and other information; use of computer software.