ACTL30002 Actuarial Modelling II

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: Two x 1-hour lecture during semester; An additional one hour lecture every 3rd week during semester; 1x1 hour tutorial per week commencing in second week of semester. Total Time Commitment: Not available
Prerequisites:	Both of: **Subject** / **Study Period Commencement:** / **Credit Points:** ACTL20002 Financial Mathematics II — Semester 2 — 12.50 MAST20005 Statistics — Semester 2 — 12.50
Corequisites:	None
Recommended Background Knowledge:	Please refer to Prerequisites and Corequisites.
Non Allowed Subjects:	Students may not gain credit for both **ACTL (../../view/current/actl30002) 30002 Actuarial Modeling II (../../view/current/actl30002)** and 300-330 Survival Models: Theory and Applications.
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:	Miss Ping Chen
Contact:	**pche@unimelb.edu.au (mailto:pche@unimelb.edu.au)**
Subject Overview:	Topics include exact and census methods for estimating transition intensities based on age; goodness of fit and smoothness of graduated estimates versus crude estimates; actuarial modelling; general principles of stochastic processes; Markov chains in actuarial work.
Objectives:	# Describe the principles of actuarial modelling # Describe the general principles of stochastic processes, and their classification into different types # Define and apply a Markov chain # Describe how to estimate transition intensities depending on age, exactly or using the census approximation # Describe how to test crude estimates for consistency with a standard table or a set of graduated estimates, and describe the process of graduation # Apply pre-requisite mathematical and statistical concepts to the solution of problems on the above topics

Assessment:	A 2-hour end of semester examination (80%) and up to three assignments totalling not more than 20 pages (20%).
Prescribed Texts:	You will be advised of prescribed texts by your lecturer.
Recommended Texts:	Information Not Available
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/2012/B-ARTS)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2012/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2012/B-MUS)** 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: written communication; problem solving; statistical reasoning; application of theory to practice; synthesis of data and other information.
Notes:	Students may not gain credit for both **300-313 Actuarial Modelling II (../../view/2010/300-313)** and **300-330 Survival Models: Theory and Applications (../../view/2010/300-330)** .
Related Course(s):	Master of Accounting Master of Accounting