



University of Pretoria Yearbook 2016

Actuarial mathematics 705 (AKM 705)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	18.00
Programmes	BScHons Actuarial Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Actuarial Science
Period of presentation	Semester 1

Module content

The stochastic approach to annuities and assurances involving one of two lives. Definitions, estimation and use of select mortality functions. Multiple decrements and pension funds. Variable benefit, disability, long-term care contracts. Life insurance contracts: expenses and bonuses. Net and gross premiums and reserves for fixed and variable benefit contracts. Discounted emerging cost techniques. Profit testing. Asset shares for life insurance contracts. Alterations to contracts. Costs of guarantees under life insurance contracts. Factors affecting mortality, selection, standardisation. The process of population projection and its main determinants. Valuation of benefits under a disability insurance contract.

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