University of Pretoria Yearbook 2017

Stochastic calculus 764 (WTW 764)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	15.00
Programmes	BScHons Applied Mathematics
	BScHons Mathematics
	BScHons Mathematics of Finance
Prerequisites	WTW 734 or WTW 735
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Mathematics and Applied Maths
Period of presentation	Semester 2

Module content

Mathematical modelling of Random walk. Conditional expectation and Martingales. Brownian motion and other Lévy processes. Stochastic integration. Ito's Lemma. Stochastic differential equations. Application to finance.