

University of Pretoria Yearbook 2017

Stochastic calculus 764 (WTW 764)

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| 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.

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