



# University of Pretoria Yearbook 2017

## Actuarial modelling 382 (IAS 382)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	<a href="#">Faculty of Natural and Agricultural Sciences</a>
<b>Module content</b>	Principles of actuarial modelling and stochastic processes. Markov chains and continuous-time Markov jump processes. Simulation of stochastic processes. Survival models and the life table. Estimating the lifetime distribution $F_x(t)$ . The Cox regression model. The two-state Markov model. The general Markov model. Binomial and Poisson models. Graduation and statistical tests. Methods of graduation. Exposed to risk. The evaluation of assurances and annuities. Premiums and reserves.
<b>Module credits</b>	20.00
<b>Programmes</b>	<a href="#">BCom Statistics</a> <a href="#">BSc Actuarial and Financial Mathematics</a> <a href="#">BSc Applied Mathematics</a> <a href="#">BSc Mathematical Statistics</a> <a href="#">BSc Mathematics</a>
<b>Service modules</b>	Faculty of Economic and Management Sciences
<b>Prerequisites</b>	WST 312 60%
<b>Contact time</b>	1 practical per week, 2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Actuarial Science
<b>Period of presentation</b>	Semester 2

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of each student to familiarise himself or herself well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.