University of Pretoria Yearbook 2022

Financial engineering 354 (WTW 354)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	18.00
NQF Level	07
Programmes	BCom (Statistics and Data Science)
	BCom
	BSc (Computer Science)
	BSc (Actuarial and Financial Mathematics)
	BSc (Applied Mathematics)
	BSc (Mathematical Statistics)
	BSc (Mathematics)
Service modules	Faculty of Engineering, Built Environment and Information Technology
	Faculty of Economic and Management Sciences
Prerequisites	WST 211, WTW 211 and WTW 218
Contact time	1 tutorial per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Mathematics and Applied Mathematics
Period of presentation	Semester 1

Module content

Mean variance portfolio theory. Market equilibrium models such as the capital asset pricing model. Factor models and arbitrage pricing theory. Measures of investment risk. Efficient market hypothesis. Stochastic models of security prices be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations.