



University of Pretoria Yearbook 2020

Mathematical methods and models 772 (WTW 772)

Qualification Postgraduate

Faculty Faculty of Natural and Agricultural Sciences

Module credits 15.00

Programmes BScHons Applied Mathematics

BScHons Mathematics

BScHons Mathematics and Mathematics Education Algebra and Analysis

BScHons Mathematics and Mathematics Education Applied Analysis

BScHons Mathematics and Mathematics Education Differential Equations and Modelling

BScHons Mathematics of Finance

Prerequisites No prerequisites.

Contact time 2 lectures per week

Language of tuition Module is presented in English

Department Mathematics and Applied Mathematics

Period of presentation Semester 2

Module content

This module aims at using advanced undergraduate mathematics and rigorously applying mathematical methods to concrete problems in various areas of natural science and engineering.

The module will be taught by several lecturers from UP, industry and public sector. The content of the module may vary from year to year and is determined by relevant focus areas within the Department. The list of areas from which topics to be covered will be selected, includes: Systems of differential equations; dynamical systems; discrete structures; Fourier analysis; methods of optimisation; numerical methods; mathematical models in biology, finance, physics, etc.

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