University of Pretoria Yearbook 2018

BScHons Applied Mathematics (02240172)

Minimum duration of study	1 year
Total credits	135

Programme information

Renewal of registration

i. Subject to exceptions approved by the Dean, on the recommendation of the head of department, and in the case of distance education where the Dean formulates the stipulations that will apply, a student may not sit for an examination for the honours degree more than twice in the same module.
ii. A student for an honours degree must complete his or her study, in the case of full-time students, within two years and, in the case of after-hours students, within three years of first registering for the degree and, in the case of distance education students, within the period stipulated by the Dean. Under special circumstances, the Dean, on the recommendation of the head of department, may give approval for a limited extension of this period.

In calculating marks, General Regulation G.12.2 applies.

Apart from the prescribed coursework, a research project is an integral part of the study.

Admission requirements

A BSc in Mathematics, Applied Mathematics or equivalent Bachelor's degree with at least a 60% average in the final year Mathematics or Applied Mathematics subjects. The final year should include at least four of the following third-year level modules or equivalent: partial differential equations, dynamical systems (ordinary differential equations), real analysis, complex analysis, numerical analysis and continuum mechanics (UP modules WTW 386, WTW 382, WTW 310, WTW 320, WTW 383 or WTW 387). In the selection procedure the candidate's complete undergraduate academic record will be considered.

Promotion to next study year

The progress of all honours candidates is monitored biannually by the postgraduate coordinator/head of department. A candidate’s study may be terminated if the progress is unsatisfactory or if the candidate is unable to finish his/her studies during the prescribed period.

Pass with distinction

The BScHons degree is awarded with distinction to a candidate who obtains a weighted average of at least 75% in all the prescribed modules and a minimum of 65% in any one module.

Curriculum: Final year

Minimum credits: 135

Minimum credits: 135

Core credits: 45

Elective credits: 90

Other programme-specific information:

The programme compilation consists of seven honours modules of 15 credits each as well as the mandatory project (30 credits). It is required that students select the stream and elective modules according to the prerequisites of the modules.

- Stream 1: Applied analysis
- Stream 2: Differential equations and modelling

Core modules

Partial differential equations of mathematical physics 776 (WTW 776) - Credits: 15.00
Project 795 (WTW 795) - Credits: 30.00

Elective modules

Functional analysis 710 (WTW 710) - Credits: 15.00
Numerical analysis 733 (WTW 733) - Credits: 15.00
Measure theory and probability 734 (WTW 734) - Credits: 15.00
Main principles of analysis in application 735 (WTW 735) - Credits: 15.00
Mathematical optimisation 750 (WTW 750) - Credits: 15.00
Finite element method 763 (WTW 763) - Credits: 15.00
Stochastic calculus 764 (WTW 764) - Credits: 15.00
Mathematical methods and models 772 (WTW 772) - Credits: 15.00
Continuum mechanics 787 (WTW 787) - Credits: 15.00