

# University of Pretoria Yearbook 2021

## BScHons Mathematics of Finance (02240276)

**Department** Mathematics and Applied Mathematics

**Minimum duration of study** 1 year

**Total credits** 135

**NQF level** 08

### Programme information

#### Renewal of registration

- i. Subject to exceptions approved by the Dean, on the recommendation of the relevant head of department, 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. Under special circumstances, the Dean, on the recommendation of the relevant 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

1. Relevant bachelor's degree
2. At least 60% for all mathematics and applied mathematics modules at final-year level
3. A minimum of 60% for each of the following subjects/modules (or equivalent):
  - Real analysis at final-year level
  - Linear algebra at second-year level

### 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

Core credits: 120

Elective credits: 15

### Additional information:

- WTW 732 and WTW 762 are presented as weekly lectures together with some extra block lectures.
- Students must select either WTW 792 or WTW 795

### Core modules

[Functional analysis 710](#) (WTW 710) - Credits: 15.00

[Mathematical models of financial engineering 732](#) (WTW 732) - Credits: 15.00

[Numerical analysis 733](#) (WTW 733) - Credits: 15.00

[Measure theory and probability 734](#) (WTW 734) - Credits: 15.00

[Mathematical models of financial engineering 762](#) (WTW 762) - Credits: 15.00

[Stochastic calculus 764](#) (WTW 764) - Credits: 15.00

[Project 792](#) (WTW 792) - Credits: 30.00

[Project 795](#) (WTW 795) - Credits: 30.00

### Elective modules

[Linear models 710](#) (LMO 710) - Credits: 15.00

[Linear models 720](#) (LMO 720) - Credits: 15.00

[Multivariate analysis 710](#) (MVA 710) - Credits: 15.00

[Multivariate analysis 720](#) (MVA 720) - Credits: 15.00

[Special topics 727](#) (WTW 727) - Credits: 15.00

[Mathematical optimisation 750](#) (WTW 750) - Credits: 15.00

[Finite element method 763](#) (WTW 763) - Credits: 15.00

[Mathematical methods and models 772](#) (WTW 772) - Credits: 15.00

[Partial differential equations of mathematical physics 776](#) (WTW 776) - Credits: 15.00

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 students to familiarise themselves 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.