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# University of Pretoria Yearbook 2019

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## BScHons Mathematics of Finance (02240276)

**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 relevant 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 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

An appropriate BSc or equivalent Bachelor's degree with a minimum of 60% for all Mathematics/Applied mathematics modules at third-year level. In the selection procedure the candidate's complete undergraduate academic record will be considered. In particular, it is required that the candidate has completed real analysis at third-year level and linear algebra on second-year level each with a mark of at least 60% (UP modules WTW 310 and WTW 211 / WTW 221).

### 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.



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## Curriculum: Final year

**Minimum credits: 135**

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Core credits: 120

Elective credits: 15

**Other programme-specific information:**

WTW 732 and WTW 762 are presented as weekly lectures together with some extra block lectures.

### 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

[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

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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.