

# University of Pretoria Yearbook 2025

## BScHons in Mathematics (02240182)

**Department** Mathematics and Applied Mathematics

**Minimum duration of study** 1 year

**Total credits** 135

**NQF level** 08

### Admission requirements

1. Bachelor of Science in Mathematics degree  
or  
Bachelor of Science in Applied Mathematics degree  
or  
Relevant bachelor's degree
2. At least 60% for mathematics and applied mathematics modules at final-year level
3. At least a minimum of 60% for the following subjects/modules (or equivalent) at final-year level:
  - a. Real analysis
  - b. Algebra

### 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.

## Curriculum: Final year

**Minimum credits: 135**

### **Stream 1: Applied analysis**

Core credits: 75 credits

Elective credits: 60 credits

### **Stream 2: Differential equations and modelling**

Core credits: 135 credits

## **Core modules**

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

[Axiomatic set theory and mathematical logic 724](#) (WTW 724) - Credits: 15.00

[Algebra 731](#) (WTW 731) - Credits: 15.00

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

[Topology 790](#) (WTW 790) - Credits: 15.00

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

## **Elective modules**

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

[Numerical analysis 733](#) (WTW 733) - 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

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

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### **General Academic Regulations and Student Rules**

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations. The G Regulations are updated annually and may be amended after the publication of this information.

### **Regulations, degree requirements and information**

The faculty regulations, information on and requirements for the degrees published here are subject to change and may be amended after the publication of this information.

### **University of Pretoria Programme Qualification Mix (PQM) verification project**

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQSF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are

legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.