BScHons *Financial Engineering* (02240277)

Department	Mathematics and Applied Mathematics
Minimum duration of study	1 year
Total credits	135
NQF level	08

Admission requirements

1. Mathematics-intensive bachelor's degree. (Examples: BSc degree with at least four mathematics, applied mathematics or mathematical ststistics modules in the final year BEng degree)
2. At least 60% weighted average at final-year level
3. A minimum of 60% each in the following subjects/modules (or equivalent) at second-year level:

- Calculus
- Differential equations
- Linear algebra

Curriculum: Final year

Minimum credits: 135

Core credits: 91
Elective credits: 44

The Postgraduate Coordinator has to approve the final programme composition for this programme.

1. Students who have included Statistics, Mathematical Statistics or Industrial Engineering in their undergraduate degree programme, will not be allowed to take BAN 780. Additional modules from the list of electives should be included in the programme composition.
2. Lectures for BAN 780 and ISE 780 are scheduled in "blocks" – consult the relevant departments at the Faculty of Engineering, Built Environment and Information Technology.
3. WTW 732 and WTW 762 will be presented weekly as well as some extra "block" lectures.

Core modules

Industrial analysis 780 (BAN 780) - Credits: 16.00
Mathematical models of financial engineering 732 (WTW 732) - Credits: 15.00
Mathematical optimisation 750 (WTW 750) - Credits: 15.00
Mathematical models of financial engineering 762 (WTW 762) - Credits: 15.00
Project 792 (WTW 792) - Credits: 30.00

Elective modules

Systems thinking and engineering 780 (ISE 780) - Credits: 16.00
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
Modern portfolio theory 712 (WTW 712) - Credits: 15.00
Special topics 727 (WTW 727) - Credits: 15.00
Numerical analysis 733 (WTW 733) - Credits: 15.00
Main principles of analysis in application 735 (WTW 735) - Credits: 15.00
Finite element method 763 (WTW 763) - Credits: 15.00

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

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.