University of Pretoria Yearbook 2019

BScHons Financial Engineering (02240277)

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 bachelor's degree with a minimum of 60% for all modules on third-year level. In the selection procedure the candidates complete undergraduate academic record will be considered. In particular, it is required that the candidate has completed Calculus, Differential equations and Linear algebra on second-year level (each with a mark of at least 60%).

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: 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.
4. TRA 720 not allowed for students who have already passed the UP module WST 321 (or equivalent) at undergraduate level.

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
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 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.