University of Pretoria Yearbook 2019

PhD Mathematical Statistics (02260612)

Minimum duration of study	2 years
Total credits	360

Programme information

A candidate must complete a thesis in one of several fields in Applied Statistics or Mathematical Statistics in which research is actively being done within the Department. Details are available from the Head of Department of Statistics as well as in the departmental brochure. Refer to the Departmental website for further information.

Duration of studies
The doctorate is conferred on a student only if one of the following periods has expired:

i. At least four years after complying with all the requirements for a three-year bachelor's degree.
ii. At least three years after complying with all the requirements for a four-year bachelor's degree.
iii. At least two years after complying with all the requirements for a bachelor's degree of five years or more.
iv. At least two years after complying with all the requirements for a master's degree.
v. With the exception of a shorter period that may be approved by the Dean, at least 12 months since registration for the doctorate at this University has expired.

The relevant head of department may set specific residential requirements for students who are required to live on campus.

Renewal of registration
Subject to other faculty regulations, a student for a doctorate must complete his or her studies within three years after first registering for the degree. Under special circumstances, the Dean, on the recommendation of the relevant head of department or the Postgraduate Committee, may give approval for a limited fixed extension of this period.

Curriculum
The curriculum for the PhD degree consists of the following:

i. Theoretical knowledge of the major subject/s and such additional modules as may be prescribed.
ii. A thesis.

Conversion of a master's to doctoral study
The stipulations of G.41 apply as follows:

1. Requirements

a. Under special circumstances, the dean of a faculty may convert the registration of a candidate for the master's degree to registration for a doctoral degree.
b. For such conversions, the relevant head of department and the supervisor must be satisfied that the

student's completed work is of the standard that would be expected of a doctoral student, that the student is capable of completing a doctoral degree, and that the project is of appropriate standard and scope to constitute a doctoral study.

c. For such conversions, the relevant head of department and the supervisor must be satisfied that the student has demonstrated that he or she has the potential to fulfil the requirements of a doctoral degree without having completed a master's degree.

2. Process

a. Application for conversion may be submitted at any time during the course of study for the master's degree.
b. The application for the conversion must include the following documentation:

i. A detailed progress report by the candidate of the work completed for the master's project. The report must provide proof that the results obtained thus far are of such a standard and scientific significance that they justify conversion to a doctoral project. The report should include details of presentations made at conferences and of material that has been submitted for publication and/or published.
ii. A detailed proposal for the intended doctoral project, written by the candidate, including the objectives of the project.
iii. A recommendation by the supervisor with specific comments on the ability of the applicant as a potential doctoral candidate as well as the feasibility of the conversion, especially with regard to the information provided by the candidate in his/her reports (items (i) and (ii)).
iv. A recommendation by the relevant head of department, if he or she is not the supervisor, in which the ability of the candidate as a potential doctoral candidate is confirmed.
v. If the Dean considers it advisable for the faculty, the candidate may be required to present a seminar to the department in support of the application. In this case, the relevant head of department should include a report on this in his or her recommendation.

c. The application of the candidate, together with the reports and recommendations, is submitted for consideration to the Dean, (who may delegate to the Chairperson of the Faculty Postgraduate Committee) for approval. The decision should be submitted to the Faculty Board for approval.

General
Candidates are required to familiarise themselves with the General Regulations regarding the maximum duration of study and the requirements to submit an article/s for publication.

Admission requirements

(i) A relevant Master's degree in Mathematical Statistics or Applied Statistics is required. For PhD (Mathematical Statistics) and PhD (Applied Statistics) a minimum average mark of 65% or more

- in the MSc (Mathematical Statistics) or MSc (Applied Statistics) or
- in an applicable master's degree at an accredited institution is required.

(ii) Students from other accredited institutions will be required to pass an entrance examination.

(iii) Student numbers are limited to a maximum of 10, collectively over all doctoral programmes in the Department of Statistics. Selection is based on performance in the prior degree, conditional on ii and iii above.

(iv) Admission is also subject to the availability of a suitable supervisor for the study.

(v) Additional entrance requirements as specified by the head of the department.

Other programme-specific information

Subject to other faculty regulations, a student for a doctoral degree must complete his or her studies within four years after first registering for the degree. Under special circumstances, the Dean, on the recommendation of the head of department, may give approval for a limited fixed extension of this period. (Also see the General Regulations.)

Examinations and pass requirements

i. Consult the General Regulations that apply to the calculation of marks.
ii. In order to obtain the PhD degree the candidate must:

- pass the examinations and the prescribed modules, as determined in the study programme;
- pass the thesis; and
- pass the final examination on the thesis and general subject knowledge.

Promotion to next study year

The progress of all doctoral candidates is monitored biannually by the supervisor and the postgraduate coordinator. 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: Year 1

All doctoral students in Statistics/Mathematical Statistics should enrol for STK 911 which is a compulsory but non-credit-bearing module. The satisfactory completion of this module is a prerequisite for embarking on the research component of the degree programme.

Core modules

Research orientation 911 (STK 911)

Module credits	0.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	No prerequisites.
Contact time	Ad Hoc
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Year

Module content

A compulsory bootcamp must be attended as part of this module – usually presented during the last week of January each year. Details regarding the venue and specific dates are made available by the department each year. The bootcamp will cover the basics of research to prepare the student for the research component of their degree. Students can be exempt from the bootcamp if it has already been attended in a previous year or for a previous degree. Each year of registration for the doctoral degree will also require the attendance of three departmental seminars. Students should ensure that their attendance is recorded by the postgraduate co-ordinator present at the seminars. The department approves the seminars attended.

Thesis: Mathematical statistics 990 (WST 990)

Module credits	360.00
Service modules	Faculty of Natural and Agricultural Sciences
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Year

Curriculum: Final year

Core modules

Research orientation 911 (STK 911)

Module credits	0.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	No prerequisites.
Contact time	Ad Hoc
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Year

Module content

A compulsory bootcamp must be attended as part of this module – usually presented during the last week of January each year. Details regarding the venue and specific dates are made available by the department each year. The bootcamp will cover the basics of research to prepare the student for the research component of their degree. Students can be exempt from the bootcamp if it has already been attended in a previous year or for a previous degree. Each year of registration for the doctoral degree will also require the attendance of three departmental seminars. Students should ensure that their attendance is recorded by the postgraduate co-ordinator present at the seminars. The department approves the seminars attended.

Thesis: Mathematical statistics 990 (WST 990)

Module credits	360.00
Service modules	Faculty of Natural and Agricultural Sciences
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Year