



UNIVERSITEIT  
STELLENBOSCH  
UNIVERSITY

## **Department of Forest and Wood Science**

### **Academic Programmes for 2018**

#### **Masters Programme**

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This document is an extract from the Faculty of AgriSciences Calendar Part 7 for 2018



## Postgraduate Programmes

Postgraduate programmes in Forestry and Wood Sciences may be taken after completion of the bachelor's programme. Students can, depending on their existing qualifications, enter a suitable postgraduate programme in one of their majors to obtain one of the following qualifications: Postgraduate Diploma in Forestry and Wood Sciences (PgDipFor), Master of Science in Forestry and Wood Sciences (MScFor), Doctor of Philosophy in Forestry and Wood Sciences [PhD (For)] or Doctor of Science in Forestry and Wood Sciences (DScFor) in the fields of Forestry and Natural Resource Sciences or Wood and Wood Products Sciences.

## Master's Programme in Forestry and Wood Sciences (MScFor)

### Forestry and Natural Resource Sciences or Wood and Wood Products Sciences

The master's programme in Forestry and Wood Sciences leads to the qualifications MScFor in Forestry and Natural Resource Sciences **or** Wood and Wood Products Sciences. The programme consists of a one-year MScFor degree after the four-year BScFor degree.

#### *Specific Admission Requirements*

- The four year BScFor degree, the postgraduate diploma in Forestry and Wood Sciences, an applicable honours degree, as well as other qualifications that Senate has approved for this purpose.
- A minimum final mark of 60% in all modules or in the major module that is applicable to the postgraduate field of study. The Department can decide to deviate from this requirement.

#### *The MScFor can be awarded to you if you –*

- have an applicable bachelor's degree of this University or a bachelor's degree approved for this purpose by Senate, and on written application have been admitted by Senate to the particular programme with a minimum study period of one year, or hold an applicable honours degree of this University or a similar honours degree approved for this purpose by Senate, and on written application have been admitted by Senate to the particular programme with a minimum study period of one year;
- have followed an approved curriculum of advanced study and/or research, which may include a period of study or research at some other place recognised by Senate;
- have passed the prescribed examination(s);
- have submitted a complete and well-written thesis or assignment which shows that you have performed independent scientific and technical investigations and interpreted the results satisfactorily; included a statement in the thesis or assignment that the thesis or assignment has not been submitted to another university in order to obtain a degree and that it is your own work; and



- Have satisfactorily taken an oral examination. In certain instances, supplementary study may be required of you.
- You must also satisfy all other regulations regarding theses or assignments for master's degrees. See Higher Degrees in Part 1 (General) of the University's Calendar.

## **Programme Description**

### *Duration of Programme*

This programme extends over one year after the four year BScFor degree.

### *Compulsory Modules*

Students must choose between Forest Science 878 and Wood Product Science 878 (180 credits)

### *Additional modules and short courses*

The master's programme consists of a 100% research component (180 credits) but you could, in consultation with your supervisor, be requested to follow additional modules or short courses, including a selection of Dryland Forestry short courses and/or Biometry 881/841 (Postgraduate Biometry). The additional coursework is designed to equip the student with additional research tools and knowledge to do independent research in the chosen field of study.

### **881 (8) Postgraduate biometry**

Data processing with SAS Enterprise Guide (or alternatively: R). Simple descriptive statistics; t-tests for single populations, combined t-tests and paired t-tests for two populations; analysis of variance: completely random design, random blocks design, Latin square design, cross-classification designs; repeated-measures analysis of variance; multiple comparison procedures; non-parametric tests: Mann-Whitney, Wilcoxon, Kruskal-Wallis and Friedman; linear regression and correlation; polynomial regression, multiple regression; selection of independent variables with stepwise regression and all-subset regression; analysis of covariance analysis; categorical data analyses (Chi-squared tests); logistic regression. This module is presented in two blocks of five half days each

*Method of assessment: Flexible assessment.*

*Prerequisite modules:*

- *Biometry 212 and 242 or 211*
- *Students with different undergraduate Statistics modules must obtain at least 50% for an admission examination.*

*Home department: Genetics*

### **841 (8) Biometrical applications and data analysis in R**

Data processing and graphical procedures with R. Simple descriptive statistics; t-tests for single populations, independent samples t-tests and paired t-tests for two populations; analysis of variance: completely random design, random-blocks design, Latin-square design, cross-classification designs; repeated-measures analysis of variance; multiple comparison procedures. Power analysis. Non-parametric tests: Mann-Whitney, Wilcoxon, Kruskal-Wallis and Friedman; linear regression and correlation; polynomial regression, multiple regression; selection of independent variables with stepwise regression and all-subset regression; covariance analysis;

categorical data analyses (Chi-squared tests); logistic regression. This module is presented in two blocks of five half days each in the second semester.

*Method of assessment: Flexible assessment*

*Prerequisite modules: Biometry 212 and 242 or 211*

*Students with different undergraduate Statistics modules must obtain at least 50% for an admission examination*

*Home department: Genetics*

### ***Additional short courses offered for specialisation in Dryland Forestry***

- Woodland ecology and silviculture
- Remote sensing and forest mensuration
- Tree improvement and nursery practice
- Biomass harvesting and transport logistics
- Wood processing and anatomy
- Dryland forest economics

The listed short courses are presented in one or two blocks, each consisting of five half days.

Method of assessment: Flexible assessment.

There are no prerequisites for the Dryland Forestry short courses

#### *Enquiries*

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## Application process:

To apply please identify a study leader and finalise the research project and first proposal.

For a list of possible supervisors, please visit:

<http://www.sun.ac.za/english/faculty/agri/forestry/staff/academic-staff>

Then apply online at:

- <http://www0.sun.ac.za/pgstudies/>

For more information on the programs offered at the Department of Forest and Wood Science, please visit the following links:

- Yearbook 2018: <http://www.sun.ac.za/english/Documents/Yearbooks/Current/AgriSciences.pdf>
  - Website of department: <http://www.sun.ac.za/forestry>
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