

GOVERNING DOCUMENT

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General syllabus for the doctoral programme in the subject of:

BIOMETRY

Valid as of 1 January 2013

Department to which the syllabus applies	Subject code	Specialisation
ECONOMICS AND BUSINESS ADMINISTRATION	NLBIOM01	-
ECONOMICS AND BUSINESS ADMINISTRATION	NLBIST01	Statistics/Mathematical statistics
ENERGY AND TECHNOLOGY	NLBIOM00	-
ENERGY AND TECHNOLOGY	NLBIMG00	Environmetrics and geoinformatics
ENERGY AND TECHNOLOGY	NLBIST00	Statistics/Mathematical statistics
ENERGY AND TECHNOLOGY	NLBIBF00	Theoretical biology and biophysics
ENERGY AND TECHNOLOGY	NLBTMA00	Applied mathematics

The goals and design of the programme may vary between departments (see 4. Miscellaneous)

Regulations for third-cycle (doctoral) education at SLU

These can be found in the [Guidelines for third-cycle \(doctoral\) education](#) (reg. no SLU ua Fe.2012.40-3218) and [Admission regulations for third-cycle \(doctoral\) education at SLU](#) (reg. no. SLU ua Fe.2012.4.4-3467). These governing documents lay out rules and recommendations for *entry requirements, recruitment and admission, joint programmes leading to a double or joint degree, scope and content of the programme, planning and follow-up of the programme, procedure when a course or study programme is unsatisfactory, examination and degrees.*

General study plans for subjects within the doctoral studies can provide additional, subject-specific rules in addition to these joint rules. This document specifies the subject-specific rules for the subject biometrics. In other respects the third-cycle studies in this subject shall adhere to the Guidelines for third-cycle education and the Admission regulations for third-cycle education at the Swedish University of Agricultural Sciences.

1. Purpose and objectives

After completing the programme, the student should be familiar with the general tools of science as well as the research methods that are typical of the subject field biometrics. The subject field includes specialisations in 1) *statistics/mathematical statistics* (with a focus on planning and statistical analysis of tests and processes), 2) *applied mathematics* (with a focus on mathematical and calculatory problems in tests and dynamic processes), 3) *theoretical biology and biophysics* (with a focus on understanding mechanisms and interactions in biological systems and processes, including construction and analysis of mathematical models and computer simulations), and 4) *environmetrics and geoinformatics* (with a focus on the connection between biotically related systems and abiotic characterisation factors, including the study of scaling problems). The purpose is to meet the qualitative targets for third-cycle studies specified in the Higher Education Ordinance, Annex 2 – Qualifications ordinance.

2. Entry requirements

Those admitted shall meet the following specific entry requirements.

The specific entry requirements for biometry are normally knowledge corresponding to at least 120 credits in theoretical subjects such as statistics, mathematics and physics.

3. Scope and content of the programme

The programme contains two main elements: research and coursework.

Research

While studying, the student shall conduct independent research work which is presented in a doctoral thesis corresponding to at least 120 credits. It is recommended that between three and five works are included in a doctoral thesis. All works shall be of such a quality that they can be published in relevant scientific journals with a referee system, possibly after some revision. In cases where the works included in the thesis have multiple authors, the doctoral student's own contributions shall be clearly specified in the thesis, or in an appendix to the thesis. The thesis may also be presented as a monograph. The thesis should in all cases be written in English.

A licentiate degree requires at least 60 credits. One or two composite papers shall be included and these shall be of sufficient quality such that they could be accepted for publication in peer-reviewed journals. The thesis should be written in English.

The student shall, through individual literature studies, follow contemporary international research relevant to their field. Additionally, the student is required to actively participate in seminars and conferences related to his/her research.

Courses

The student is required to undertake coursework which corresponds to **90-120** credits for a Degree of Doctor, and at least **60** credits for a Degree of Licentiate. For the specialisations *statistics/mathematical statistics* and *applied mathematics*, at least 120 credits is required for others and at least 90 credits for a doctoral degree. These studies shall include suitable general courses as well as individually selected subject courses.

4. Miscellaneous

Further information about third-cycle studies is available in SFS 2006:1053, and information about grants can be found in SFS 1995:938 as amended by 1998:81 (reprint), 1998:161 and 2006:1053. Information about third-cycle studies at SLU is available in the Admission regulations for third-cycle (doctoral) education (reg. no SLU ua 41-1482/07) with the annex to the Board's decision of 26 April 2007, reg. no SLU ua 41-1482/07, the Vice-Chancellor's decision and the guidelines for doctoral education at the Faculty of Natural Resources and Agricultural Science (reg. no SLU ua 40-1244/08). Each department to which the third-cycle subject area is linked can choose to specify requirements in addition to those in this study plan. These requirements are to be specified in an annex.

5. Annexes

There are no annexes.