This document is a translation for information purposes only.

Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

GOVERNING DOCUMENT

SLU ID: SLU.sfak.2016.1.1.1-285

Subject area: 3. First-/second-/third-cycle education

Document type: Rules
Decision-maker: Doctoral Education Committee (FUN S)
Organisational unit: Faculty of Natural Resources and Agricultural Sciences
Decision date: 05/25/2016

Effective as of: 07/01/2016
Valid until: Further notice
Last reviewed: -
To be reviewed by: -

Document(s) repealed: -

General syllabus for the doctoral programme in the subject of: MATHEMATICAL STATISTICS

The subject mathematical statistics comprises probability theory and statistical theory with applications in all parts of society such as forest and natural sciences, technology and economics. Probability theory is mainly used to develop mathematical models to describe and analyse stochastic processes, or to study the mathematical characteristics of such models. Probability theory includes the study of principles and methods used to build and test models using empirical facts and data. The subject also includes developing models and methods for experimental verification of them, in cooperation with the fields of application. Probability theory and statistical theory are closely linked as the latter is based on the former and often gives rise to probability theory problems.

1. Programme content and scope

The programme has two main components: courses and the doctoral thesis.

Thesis work

During the period of study, the doctoral student shall carry out independent research, which is presented in a compilation thesis written in English.

Courses

The coursework shall comprise 30–60 credits for the degree of Doctor and 15-30 credits for the degree of Licentiate. The coursework shall include both appropriate general courses in transferable skills and individually selected subject-specific courses.

Utskrifter av det här dokumentet är kopior och måste alltid stämmas av mot originalet.
Printouts of this document are copies and must always be checked against the original.

2. Specific entry requirements

The following specific entry requirements apply:

For the subject of mathematical statistics, the applicant must have the equivalent knowledge to a minimum of 90 credits in relevant subject areas. This must include a degree project, and at least 30 credits must be at the advanced level.

3. Overall rules for doctoral education at SLU

Third-cycle (doctoral) education is regulated by the Higher Education Ordinance (SFS 1993:100) and the Ordinance for the Swedish University of Agricultural Sciences (SFS 1993:221).

The local governing documents that regulate doctoral education at SLU level can be found on the page Regulations and forms for doctoral education.

The programme is organised in a way that allows doctoral students to meet the qualitative targets for third-cycle courses and programmes specified in the Higher Education Ordinance's Annex 2 – System of Qualifications (see appendix 1).

4. Miscellaneous

Each faculty offering the third-cycle subject can choose to specify specialisations or requirements in addition to the general syllabus. These requirements must be documented in an appendix.

5. Appendixes

Appendix 1. Higher Education Ordinance Annex 2 – System of Qualifications.

Appendix 1. Higher Education Ordinance (SFS 1993:100)
Annex 2 – System of Qualifications.

Degree of Doctor [Doktorsexamen]

Scope

A Degree of Doctor is awarded after the third-cycle student has completed a study programme of 240 credits in a subject in which third-cycle teaching is offered.

Outcomes

Knowledge and understanding

For the Degree of Doctor the third-cycle student shall
- demonstrate broad knowledge and systematic understanding of the research field as well as advanced and up-to-date specialised knowledge in a limited area of this field, and
- demonstrate familiarity with research methodology in general and the methods of the specific field of research in particular.

Competence and skills

For the Degree of Doctor the third-cycle student shall
- demonstrate the capacity for scholarly analysis and synthesis as well as to review and assess new and complex phenomena, issues and situations autonomously and critically,
-demonstrate the ability to identify and formulate issues with scholarly precision critically,
- autonomously and creatively, and to plan and use appropriate methods to undertake research and other qualified tasks within predetermined time frames and to review and evaluate such work,
- demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through his or her own research,
- demonstrate the ability in both national and international contexts to present and discuss research and research findings authoritatively in speech and writing and in dialogue with the academic community and society in general,
- demonstrate the ability to identify the need for further knowledge and,
- demonstrate the capacity to contribute to social development and support the learning of others both through research and education and in some other qualified professional capacity.

Judgement and approach

For the Degree of Doctor the third-cycle student shall
- demonstrate intellectual autonomy and disciplinary rectitude as well as the ability to make assessments of research ethics, and
- demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used.

Research thesis (doctoral thesis)

For the Degree of Doctor the third-cycle student shall have been awarded a pass grade for a research thesis (doctoral thesis) of at least 120 credits.

Miscellaneous

Specific requirements determined by each higher education institution itself within the parameters of the requirements laid down in this qualification descriptor shall also apply for a Degree of Doctor with a defined specialisation.

Degree of Licentiate [Licentiatexamen]

Scope

A Degree of Licentiate is awarded
- either after a third-cycle student has completed a study programme of at least 120 credits in a subject in which third-cycle teaching is offered,
- or after a third-cycle student has completed one part comprising at least 120 credits of a study programme intended to conclude with the award of a PhD, if a higher education institution decides that a Degree of Licentiate of this kind may be awarded at the institution.

Outcomes

Knowledge and understanding
For a Degree of Licentiate the third-cycle student shall
- demonstrate knowledge and understanding in the field of research including current specialist knowledge in a limited area of this field as well as specialised knowledge of research methodology in general and the methods of the specific field of research in particular.

Competence and skills
For a Degree of Licentiate the third-cycle student shall
- demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake a limited piece of research and other qualified tasks within predetermined time frames in order to contribute to the formation of knowledge as well as to evaluate this work,
- demonstrate the ability in both national and international contexts to present and discuss research and research findings in speech and writing and in dialogue with the academic community and society in general, and
- demonstrate the skills required to participate autonomously in research and development work and to work autonomously in some other qualified capacity.

Judgement and approach
For a Degree of Licentiate the third-cycle student shall
- demonstrate the ability to make assessments of ethical aspects of his or her own research,
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

Thesis
For a Degree of Licentiate the third-cycle student shall have been awarded a pass grade for a research thesis of at least 60 credits.

Miscellaneous

Specific requirements determined by each higher education institution itself within the parameters of the requirements laid down in this qualification descriptor shall also apply for a Degree of Licentiate with a defined specialisation.