
GOVERNING DOCUMENT

Subject area: Research and doctoral education

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Architecture, Horticulture and Crop Production
Science in the subject Biology
Reference: Erland Liljeroth

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General syllabus for the doctoral programme in the subject of:

BIOLOGY

Valid as of 1 January 2016

The goals and design of the education can vary between faculties (see point 3. Miscellaneous)

Regulations for third-cycle (doctoral) education at SLU

The 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).

SLU has regulations for the following:

- Recruitment and admission ([Admission regulations for third-cycle \(doctoral\) education](#) (reg. no Fe 2012.4.4-3467);
- Joint programmes leading to a double or joint degree;
- Supervision;
- Scope and content of programmes;
- Planning and follow-up of programmes;
- Procedure when a course or study programme is unsatisfactory;
- Examination;
- Degrees.

These can be found in the [Guidelines for third-cycle \(doctoral\) education](#), reg. no SLU ua 2015.1.1.1-2467).

A general study syllabus shall indicate the following: the main content of the study programme, specific entry requirements and any other regulations required. All general syllabuses must be approved by the faculty board.

The education is carried out in a way that allows doctoral students to meet the third-cycle studies' qualitative targets specified in the *Higher Education Ordinance's Annex 2 – Qualifications Ordinance*:

Qualitative targets according to the HEO Qualification Ordinance: Degree of Doctor

Objectives For the Degree of Doctor the third-cycle student shall

Knowledge and understanding

- *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 proficiency

- *demonstrate the capacity for scholarly analysis and synthesis as well 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

- *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.*

Objectives For the Degree of Licentiate the third-cycle student shall*Knowledge and understanding*

- *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 proficiency

- *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 proficiency required to participate autonomously in research and development work and to work autonomously in some other qualified capacity.*

Judgement and approach

- *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.*

1. Programme content and scope

The programme contains two main elements: research and coursework.

Research

While studying, the student shall conduct independent research work which is presented in an English-language compilation thesis.

Courses

The student is required to undertake coursework which corresponds to 30-60 higher education credits for a Degree of Doctor, or 15–30 higher education credits for a Degree of Licentiate. These studies shall include suitable general courses as well as individually selected subject courses.

2. Specific entry requirements

Those admitted shall meet the following specific entry requirements.

The special entry requirements for the subject biology are the equivalent of at least 90 higher education credits in courses relevant to biology. At least 30 credits must be at second-cycle level. For applicants who do not fulfil these criteria, eligibility is verified on a case-by-case basis taking into account the research task.

3. Miscellaneous

Each respective faculty to which the third-cycle subject area is linked can choose to specify specialisations or requirements in addition to the general study plan. These requirements are specified in an annex.

4. Annexes

Annex 1 - Faculty of Landscape Architecture, Horticulture and Crop Production Science, specific requirements

Annex 1

Specific requirements for the Faculty of Landscape Architecture,
Horticulture and Crop Production Science in the subject of:
Biology

Specializations

The LTV faculty offers PhD education in the subject Biology with the possibility of one of the following specializations: Chemical Ecology, Plant Biotechnology, Plant Breeding, Plant Protection Biology.

Specific requirements at the LTV Faculty for all specializations within Biology

The extent of the scientific work as well as the coursework is described below:

Doctorate comprises 240 higher education credits in total
Courses 45-60 credits, of which
Subject courses constitute at least 30 credits
General courses constitute at least 12 credits
Remaining credits are elective

Licentiate comprises 120 higher education credits in total
Courses 22-30 credits, of which
Subject courses at least 15 credits
General courses at least 6 credits

Subject courses

Subject courses provide in-depth subject studies and/or complementary studies. Subject courses can be both theoretical and methodological. Individual literature courses and introductory paper are included here.

General courses

A general course is a course which provides general competence required by virtually all PhD students in the faculty. The decision regarding which courses are that are general courses is made by the PhD Education Board. In principle, all courses for which the faculty receives funding from the PhD Education Council are general courses. The funded general courses given at the faculty are the following: Introductory course for PhD students, Philosophy of science and research ethics, How to write and publish a scientific paper, Popular science writing, Teaching in higher education - basic course, Research design, Treatment of data, Information retrieval and methods for scientific communication and various courses in leadership and project management. Recommended courses are the PhD-level courses at SLU arranged by this faculty or another SLU faculty, but equivalent courses at other universities are also accepted.

Other activities

Provided that the minimum number of credits for subject courses and general courses are met, activities such as participation at conferences and a stay at another department may give credits if there is an approved syllabus.