



SLUkurs

Forest Science (BSc)

Version 2. Is valid from autumn 2023

DECISION

Programme code:

SK003

Scope:

180 ECTS

Date:

2020-09-10

Decision by:

Utbildningsnämnden

Revised by:

2021-10-05

Utbildningsnämnden

SLU Id:

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Board responsible:

Programnämnden för utbildning inom skog (PN - S)

PRIOR KNOWLEDGE AND OTHER ENTRY REQUIREMENTS

To be admitted to Forestry Science (BSc), the following requirements apply:

General entry requirements for first-cycle studies and

- Biology 2
- Physics 1a or Physics 1b1 + 1b2
- Chemistry 2
- Mathematics 4

or

- Biology B
- Physics A
- Chemistry B

- Mathematics D

The specific entry requirements can also be met by applicants who have obtained equivalent knowledge under the current or a former Swedish national curriculum. The requirements are also fulfilled if equivalent knowledge has been obtained by other means.

There are specific entry requirements for each course included in the programme. These are described in the course syllabus.

INTENDED LEARNING OUTCOMES

General objectives

The general objectives for first- and second-cycle courses and programmes are specified in the Swedish Higher Education Act (Chapter 1, Sections 8–9).

Objectives for a Degree in XX

In accordance with the appendix to the Ordinance for the Swedish University of Agricultural Sciences, for a Degree of Bachelor, the student must meet the following objectives:

Knowledge and understanding

For a Degree of Bachelor the student shall have:

- demonstrated knowledge and understanding in the main field of study, including knowledge of the disciplinary foundation of the field, understanding of applicable methodologies in the field, specialised study in some aspect of the field as well as awareness of current research issues.

Competence and skills

For a Degree of Bachelor the student shall have:

- demonstrated the ability to search for, gather, evaluate and critically interpret relevant information for a formulated problem and also discuss phenomena, issues and situations critically
- demonstrated the ability to identify, formulate and solve problems autonomously and to complete tasks within predetermined time frames
- demonstrated the ability to present and discuss information, problems and solutions in speech and writing and in dialogue with different audiences, and
- demonstrated the skills required to work autonomously in the main field of study.

Judgement and approach

For a Degree of Bachelor the student shall have:

- demonstrated the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues
- demonstrated insight into the role of knowledge in society and the responsibility of the individual for how it is used, and
- demonstrated the ability to identify the need for further knowledge and ongoing learning.

DEGREE

Degree awarded on completion of the programme

The programme Forest Science (BSc) leads to a Degree of Bachelor of Science, which is a general qualification. Other general qualifications may be awarded, provided that the requirements for them are fulfilled (see SLU's system of qualifications and under Additional information, Possibilities for further study).

Students who fulfil the qualification requirements for a Degree of Bachelor will be issued a degree certificate upon request. The degree certificate will specify the qualification as Degree of Bachelor of Science with a Major in Forestry Science or Degree of Bachelor of Science with a Major in Biology.

Degree requirements

A Degree of Bachelor with a Major in Forestry Science is awarded to students who have successfully completed the qualification requirements of 180 credits, of which at least 90 credits according to the following:

- a minimum of 60 credits within the main field of study forestry science (G1N, G1F)
- a minimum of 15 credits from courses of specialised study within the main field of study forestry science (G2F)
- a minimum of 15 credits from a degree project/independent project within the main field of study forestry science (first-cycle level degree project, G2E).

A Degree of Bachelor with a Major in Biology is awarded to students who have successfully completed the qualification requirements of 180 credits, of which at least 90 credits according to the following:

- a minimum of 60 credits within the main field of study biology (G1N, G1F)
- a minimum of 15 credits from courses of specialised study within the main field of study biology (G2F)
- a minimum of 15 credits from a degree project/independent project within the main field of study biology (first-cycle level degree project/G2E).

G1N and G1F first-cycle courses can be replaced by G1E and G2F first-cycle courses.

Courses at first-cycle level can be replaced by courses at second-cycle level, however second-cycle courses may constitute a maximum of 30 credits.

CONTENT AND OUTLINE

Programme description

Students of the BSc in Forest Science can acquire comprehensive knowledge of the forest ecosystem and the sustainable use of forests and have the option of specialising in parts of this field. A significant amount of teaching takes place in the field and includes study visits. This contributes to increased insight into the forestry sector, its function and interaction with the environment and the community. Students who successfully complete the programme can continue their studies at second-cycle level or seek employment with forestry companies, consulting businesses, public authorities and other employers who have a need for knowledge of the forest ecosystem and sustainable use.

The first year of the programme centres on a pedagogical idea which involves providing a basic understanding of both the natural and the exploited forest ecosystems. During year 2, students can choose to specialise in forestry science or biology. Regardless of their specialisation, students participate in a number of shared courses, which guarantees a dynamic learning environment that brings together students with different forestry interests. The programme is characterised by a scientific and research basis as it is designed to link to the research that is conducted at the faculty. Another characteristic of the programme is the number of courses taught in the field, providing insight into practical tasks and the conditions that apply to the forestry sector. During year 3, students can further their specialised study and conduct their degree projects in one of the main fields of study.

General skills are integrated in subject courses. Throughout the programme, students will practise and develop their oral and written communication skills in dialogues with different groups. Students take some of the courses together with students from other programmes. In order to progress with the subject matter, students need to critically and systematically integrate knowledge and a scientific approach. The application of SLU's broad research to lectures and supervisions enables students to practise scientific methods. Studies link to the professional world, business, industry and society through participation in study visits, guest lectures and project work with external actors. The degree project offers students the option of specialising in a particular subject by applying their knowledge, skills and approach in their chosen main field of study.

Students can opt to take courses outside the proposed schedule, at SLU or another

university in Sweden or abroad. There are several opportunities for exchange studies at one of SLU's partner universities. The language of instruction is Swedish, however some courses may be taught in English. When combined with the content and perspectives of individual courses, this contributes to internationalisation at home.

SLU actively promotes a healthy work and study environment and equal opportunities. SLU's profile focuses on knowledge of biological natural resources. Societal challenges such as the supply of raw materials, water and energy, and climate change tie in with our areas of responsibility. These challenges, and humankind's use and management of biological natural resources, form some of the UN goals for sustainable development.

Courses in the programme

Main field of study

Forestry science (SV)

Biology (BI)

Course, Main field of study - specialisation

Year 1

Forest – use and values, 7,5 credits, SV/BI, G1N

Forest soils and climatology, 7,5 credits, MV/SV, G1N

Tree biology, genetics and evolution, 15 credits, BI, G1N

Science theory and method, 7,5 credits, SV/MS, G1N

Forest policy and legislation in Sweden, 7,5 credits SV/HU, G1N

Introduction to forestry practices, 7,5 credits, SV, G1F

Forest ecology and botany, 7,5 credits, BI, G1F

Forests and landscapes in Northern Sweden 7,5 credits, SV/BI, G1F

Year 2

Mathematical Statistics with forest applications, 7,5 credits, MS, G1N

Forest management and conservation biology, 7,5 credits, BI/SV, G1F

GIS and forest remote sensing, 7,5 credits, SV/TK G1F

Forest Economics, 7,5 credits, FÖ/NA, G1N

International forest policy, 7,5 credits, SV, G1F

Forest ecosystem and biomass chemistry I, 7,5 credits, KE, G1N

Forest biomaterial, 7,5 credits, SV, G1F

Forest ecosystem and biomass chemistry II, 7,5 credits, KE, G1N

Management of forest operations, 7,5 credits, BI, G1F

Ecological zoology and entomology, 7,5 credits, BI, G1F

Southern Sweden's forests and landscapes 7,5 credits, SV/BI, G2F

Year 3, specialisation in Forestry Science (preliminary course titles)

Skoglig planering, 15 credits, SV, G1F

Ekonomiska analyser av skogliga problem, 7,5 credits, SV/FÖ, G2F

Skogliga analyser, 7,5 credits, SV, G2F

Virkesförsörjning, 7,5 credits, SV, G2F

Marknadsföring, 7,5 credits, SV/FÖ, G1F

Projektledning teori och praktik, 7,5 credits, SV, G2F

Bachelor thesis in Forestry Science, 15 credits, SV, G2E

Year 3, specialisation in Biology (preliminary course titles)

Forest ecology and conservation biology, 15 credits, BI, G2F

Control of ecological disturbances in forest systems, 15 credits, BI, G2F

Advanced plant genetics and biotechnology, 7,5 credits, BI, G1F

Miljörätt, 7,5 credits, XX, G1F

Projektledning teori och praktik, 7,5 credits, SV, G2F

Bachelor thesis in Biology, 15 credits, BI, G2E

The courses offered may change during the programme. Decisions on the courses offered are taken well in advance of the next academic year.

Each course on the programme has its own syllabus that describes the course content and other specifics. Detailed information on when the courses are offered is available in the course schedule on the SLU student web.

OTHER INFORMATION

General regulations for first- and second-cycle courses and programmes

For more information on semester dates, examination and credit transfer, see the Regulations for education at Bachelor's and Master's level available on the SLU student web.

Possibilities for further studies

Students who complete the BSc in Forest Science and are awarded a degree have the opportunity to continue their studies at second-cycle level. The programme contains courses which, if combined with studies at second-cycle level, may enable students to fulfil the requirements for the professional qualification Degree of Master of Science in Forestry, 300 credits. The objectives for the professional qualification Degree of Master of Science in Forestry are specified in the appendix to the Ordinance for the Swedish University of Agricultural Sciences. The requirements for the professional

qualification Degree of Master of Science in Forestry are defined in SLU's degree requirements for first cycle and second cycle level.