



## Course syllabus

Faculty of Technology

Department of Forestry and Wood Technology

1TS613 Grundkurs i skoglig förvaltning, 15 högskolepoäng

Basic course in forest management, 15 credits

### **Main field of study**

Forest and Wood Engineering

### **Subject**

Forest Science

### **Level**

First cycle

### **Progression**

G1N

### **Date of Ratification**

Approved 2023-11-20.

The course syllabus is valid from autumn semester 2024.

### **Prerequisites**

General entry requirements + English 6.

### **Objectives**

After the course the student should know:

- Describe the occurrence of tree species in different parts of the world and identify Swedish tree species.
- Explain the different site requirements of tree species and how rock types, soils, and climate affect the forest's production capacity.
- Estimate the quality and site index and measure tree and stand variables in standing forest.
- Based on given stand and site conditions, legal requirements, and ownership goals, propose forest management measures, as well as discuss the effects of the

measures on damage risks, economy, environmental and social values.

- Account for the most common bio-based forest products, as well as explain how silviculture affects the wood properties and the outcome of the timber assortment.
- Calculate and compare how different management programs affect forest production and the economy during a stand cycle.
- Describe existing forest technology in Sweden.
- Compare the conditions for forestry in different countries and exemplify future opportunities and challenges for forestry based on the environmental, economic and social values.

## Content

The course primarily deals with forestry in conifer-dominated boreal forests, with a certain focus on forest ecosystems and forest management in Sweden. The course deals with both theoretical and practical aspects of forest management. The course is divided into six modules:

- Forest ecology
- Forest mensuration
- Silviculture
- Forest products
- Forestry economics and technology
- Independent work

In the Independent work module, students must carry out independent work in order to be able to compare the conditions for forestry in different countries and exemplify future opportunities and challenges for forestry based on the environmental, economic and social values.

## Type of Instruction

The course is distributed via a digital learning platform and supplemented with meetings. Forms of teaching consist of lectures, lessons, independent work with supervision, as well as practical elements in the form of laboratories and field exercises. The students work both individually and in groups. The course is given in English, but in many cases, parts and examinations can also be completed in Swedish.

## Examination

The course is assessed with the grades U, 3, 4 or 5.

Assessment of the students' performance takes place continuously during the course through examination elements for the modules that run one after the other, as well as through a final examination which consists of the examination element for the Independent work module.

- Forest ecology, submission task (2 credits, U/G)
- Forest mensuration, field test (2 credits, U/G)
- Silviculture, seminar (3 credits, U/3/4/5)
- Forest products, submission task (2 credits, U/G)
- Forestry economics and technology, submission task (2 credits, U/G)
- Independent work, report and seminar (4 credits, U/3/4/5)

### Rating scale

The exam elements are assessed with grades U and G, and with grades U, 3, 4 or 5. The grades on the modules are combined to form an overall grade for the entire course. The course is assessed with grades U, 3, 4 or 5.

Resit examination is offered in accordance with Linnaeus University's Local regulations for courses and examination at the first- and second-cycle levels. In the event that a student with a disability is entitled to special study support, the examiner will decide on adapted or alternative examination arrangements.

### Course Evaluation

A course evaluation should be conducted during the course or in connection with its conclusion. The results and analysis of the completed course evaluation should be promptly communicated to students who have completed the course. Students participating in the next course instance should be informed of the results of the previous course evaluation and any improvements that have been made, no later than at the start of the course.

### Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: 1TS141 (7,5 credits), 1TS151 (11 credits), 1TS110 (2 credits), 1TS152 (6 credits), 1TS153 (5 credits), 1TS154 (11 credits), 1TS161 (7,5 credits) och 4TS318 (7,5 credits). Module Independent work 4 credits does not overlap with any part of these courses.

### Other Information

As the course is distributed with the support of ICT, a computer with a good internet connection and a webcam is needed. Some parts of the course may entail costs which are paid for by the course participant.

### Required Reading and Additional Study Material

FAO. 2020. *Global Forest Resources Assessment 2020: Main report*. Rome. 184 pages.

Hannerz Mats, Ekström Håkan. 2023. *Nordic Forest Statistics 2023, Resources, industry, trade, prices, environment and climate*. Nordic Forest Research. 53 pages.

Kershaw A John, Ducey J Mark, Beers W Thomas, Husch Bertram. (latest edition). *Forest Mensuration*. John Wiley & Sons, Ltd. Urval 150-200 pages.

KSLA. 2009. *The Swedish Forestry Model*. Royal Swedish Academy of Agriculture and Forestry, Stockholm, 15 pages.

Swedish Forest Agency. 2020. *Forest management in Sweden Current practice and historical background*. Report 2020/4. 92 pages.

Shmulsky Rubin, Jones P David. (latest edition). *Forest Products and Wood Science: An Introduction*. John Wiley & Sons, Ltd. Urval 150-200 pages.

West PW. (latest edition). *Growing plantation forests*. Springer Cham. ISBN: 978- 3-319-01826-3, 329 pages.

Course material provided by the department.