



## Course syllabus

Faculty of Technology

Department of Forestry and Wood Technology

1TS033 Virkeslära, 7,5 högskolepoäng

Forest Products, 7.5 credits

### **Main field of study**

Forest and Wood Engineering

### **Subject**

Forest Science

### **Level**

First cycle

### **Progression**

G1N

### **Date of Ratification**

Approved 2025-06-25.

The course syllabus is valid from spring semester 2026.

### **Prerequisites**

General entry requirements.

### **Objectives**

After completing the course, the student should be able to:

- Recognize the most common wood species in Sweden and understand the differences in their properties.
- Describe the structure of softwood and relate its significance to its technical properties.
- Explain the use of forests for wood and wood-based products.
- Explain how forest management affects wood properties.
- Discuss the concept of quality throughout the value chain and how wood processing is carried out sustainably, taking environmental and societal

requirements into account.

- Demonstrate the ability to analyze, critically evaluate, and independently write about issues related to wood properties.

## Content

The course includes the following parts:

- Wood species identification
- Tree, wood, and fiber structure and anatomical characteristics
- The chemical and physical properties of wood
- Storage, handling, and durability issues of timber
- Timber sorting and measurement
- Pulp and paper processes
- Board manufacturing and use
- Report writing

## Type of Instruction

The course is distributed via a digital learning platform. The course includes exercises, lessons, laboratory work, and tutorials at scheduled times.

## Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

Assessment of the students' performance takes place continuously throughout the course. The individual examination consists of several exam components divided into two parts: assignments and a written exam. To pass the course, a minimum of a passing grade is required on all examination parts.

- Assignments, 3.5 credits (U/G)
- Written exam, 4.0 credits (U/G/VG)

The grading criteria used as the basis for grading will be communicated at the start of the course.

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:

(1.0 credits) with the course 4TS003/4TS013/4TS030, The Wood Material and (7.5 credits) 1TS013 Forest Products.

### Other Information

As the course is delivered with the support of ICT, a computer with a reliable internet connection is required. Certain components of the course may involve costs that are to be covered by the participant.

### Required Reading and Additional Study Material

Thörnqvist, Thomas. (2024) Trä: virkeskvalitet förr och nu. Hantverkslaboratoriet i Mariestad, Göteborgs universitet. 211 sidor.

Ivarsson, Tomas. (2023) Sågverksprocessen: från råvara till färdig produkt. Svenskt trätekniskt forum, Umeå. 94 sidor.

Shmulsky, Rubin & Jones, Paul David. (2019) Forest products and wood science: An introduction. Seventh Edition. John Wiley & Sons, Ltd., West Sussex, UK. 485 sidor.

Other materials will be provided by the department at the start of the course.