



Course syllabus

Faculty of Technology

Department of Forestry and Wood Technology

1TS013 Virkeslära, 7,5 högskolepoäng

1TS013 Forest Products, 7.5 credits

Main field of study

Forest and Wood Engineering

Subject Group

Forest Science

Level of classification

First Level

Progression

G1N

Date of Ratification

Approved 2009-07-24

Revised 2023-06-19 by Faculty of Technology. Content, type of instruction, examination and literature are revised. Standard text have been added.

The course syllabus is valid from spring semester 2024

Prerequisites

General entry requirements for university studies.

Objectives

After completing the course students shall:

- Be able to recognize the most common wood species in Sweden, and have an understanding of the differences in their properties.
- Be able to describe the softwood cell structure and relate the importance of it for the technical characteristics.
- Understand the forestry value chain and processing and use of forest raw material.
- Be able to explain the use of the forest for timber and wood-based products and its impact on the environment.
- Have a basic understanding of the impact of silviculture on timber properties.
- Be able to discuss the concept of quality through the value chain and discuss how the wood processing can be sustainable in view of the environmental and social requirements.
- Demonstrate the ability to in writing describe and critically discuss information

about a problem related to forest products.

Content

The course includes the following:

- Identifying wood
- Tree, wood and fiber structure and anatomical characteristics
- Chemical and physical properties of wood
- Storage, handling and durability issues of wood and timber
- Timber sorting and measuring
- Processing and use of wood products
- Pulp and paper processes
- Board manufacturing and use
- Report writing

Type of Instruction

Teaching is conducted in the form of lectures, laboratory work, quiz and written reports. Internet-based learning platform is used for distribution of materials and submission of tasks.

Examination

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

Assessment of the students' performance takes place through three exam moments, which are assignments, lab report and written exam. For the grade passed, the course objectives must be achieved, i.e. the student must have obtained approved results on all the exam moments.

- Assignments, 3.0 credits (U/G)
- Lab report, 1.0 credits (U/3/4/5)
- Exam, 3.5 credits (U/3/4/5)

Renewed examination is given in accordance with Local rules for courses and examinations at basic and advanced level at Linnaeus University.

If the university has decided that a student has the right to special educational support due to a disability, the examiner has the right to give a customized test or that the student performs the test in an alternative way.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the faculty.

Credit 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: Overlaps partially with the course 4TS003/4TS013 The wood material, 7.5 credits.

Other

Some elements of the course may entail costs defrayed by the course participant.

Required Reading and Additional Study Material

Required reading

Nylinder, M., och Fryk, H. (2011) Timmer. Tierps tryckeri AB. 221 pages.

Nylinder, M., och Fryk, H. (2015) Massaved. Tierps Tryckeri AB. 147 pages.

Shmulsky R., Jones P.D. (2019) Forest products and wood science: An introduction. Seventh Edition. Wiley-Blackwell Publishing Ltd., West Sussex, UK. 477 pages.

Other material is provided by the department at the start of the course.