



## Course syllabus

Faculty of Technology

Department of Forestry and Wood Technology

1TS018 Trä som ingenjörsmaterial, 7,5 högskolepoäng

Wood as an Engineering Material, 7.5 credits

### **Main field of study**

Forest and Wood Engineering

### **Subject Group**

Forest Science

### **Level of classification**

First Level

### **Progression**

G1F

### **Date of Ratification**

Approved 2016-11-22

Revised 2017-11-23 by Faculty of Technology. Review of prerequisites.

The course syllabus is valid from spring semester 2019

### **Prerequisites**

General entry requirements. Forest products, 7,5 credits equivalent.

## Objectives

After completing the course the student is expected to be able to know:

- Wood structure
- Physical properties of wood
- Relationship between the structure and behavior of wood in use

## Content

Hardwood and softwood, growing in the Nordic region, will be the main subject in this course. The contents are:

- Structure of timber
- Wood and moisture
- Liquid and heat flow in wood
- Wood deformation
- Wood strength

## Type of Instruction

Examination and grades are based on the level reached by the work supplied by the student. Examination can be oral or written. The result of the project work can be presented in written form or at project seminars.

### **Examination**

#### **EVALUATION**

The course is assessed with the grades A, B, C, D, E, Fx or F.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

Assessment of student performance usually takes place during special examination periods and can be done through project work, laboratory work, assignments and written examinations. The final grade is a weighted average of assessed elements.

#### **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 courses of which the content fully, or partly, corresponds to the content of this course: This course cannot be part of a degree in combination with another course in which the content fully or partly corresponds to the content of this course: Overlaps totally with 1TS014/TS9141 Wood as an Engineering Material.

#### **Other**

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

#### **Required Reading and Additional Study Material**

##### **Required Reading**

Shmulsky R., Jones P.D. (2011) Forest products & wood science: An introduction. Sixth Edition. Wiley-Blackwell Publishing Ltd., West Sussex, UK. 477 pages.

Dinwoodie J.M. (2000) Timber: Its nature and behaviour. Second Edition. Taylor & Francis Group, Oxfordshire, UK. 257 pages