Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PFS0040 Wood biology, 3.0 credits

Syllabus approved

2009-03-30

Subjects

Biology/Chemistry

Education cycle

Third cycle

Grading scale

Pass / Failed
The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

Language

English

Prior knowledge

The course is for students with a background in biology.

Objective, including learning outcomes

The overall goal is to provide introductory knowledge and a broad overview of wood biosynthesis, structure, and chemical composition. The course will help to understand the biological process of wood formation, and properties of wood as

raw material. It will help students to appreciate sources of wood variability, and constraints for wood bioengineering in planta.

Content

The course covers ultrastructure, cellular organization and chemical wood composition in hardwoods and connifers. It presents in detail the biological process of wood formation focussing on physiological and molecylar aspects. It also discusses the methods of wood chemical analysis. It includes lectures, research seminars and demonstration of techniques and tools. Additionally, it requires approx 30 hrs of individual reading.
Week 1: Introductory literature work (distant-based)
Week 2: Lectures, research seminars, a microscopy lab, lab tours and discussions

Requirements for examination

Oral examination/group discussion.

Additional information

The course is a part of the Master Course "Biology and Biotechnology of Forest Production Systems" within the Master Program Plant and Forest Biotechnology.

Responsible department

Department of Forest Genetics and Plant Physiology