



Course syllabus

Faculty of Technology

Department of Forestry and Wood Technology

4TS045 Innovationsmetoder och verktyg, 7,5 högskolepoäng

4TS045 Innovation Methods and Tools, 7.5 credits

Main field of study

Mechanical Engineering, Forest and Wood Engineering

Subject Group

Forest Science

Level of classification

Second Level

Progression

A1N

Date of Ratification

Approved by Faculty of Technology 2021-10-01

The course syllabus is valid from autumn semester 2022

Prerequisites

General entry requirements for secondcycle studies and specific entry requirements:

- Bachelor of Science in Technology or Engineering
- 15 credits in Mathematics; Calculus I, (7.5 credits), and Linear Algebra/Vector Geometry (7.5 credits) or the equivalent.
- English 6 or the equivalent.

Objectives

After completing the module, the student should be able to

- analyse and reflect upon different disciplines' approaches, methods and tools
- evaluate scientific and artistic methods that may be relevant in an innovation project
- argue for their choice of empirical material and relevant data collection methods
- analyse and evaluate research results based on scientific as well as artistic methods, including a broad sustainability perspective
- apply and evaluate different ways of communicating the processes and results of research work.

Content

The course includes the following components:

- scientific and artistic approaches, methods and tools
- methods for collecting data
- methods for analysing and evaluating data
- methods for surveying, analysing and evaluating sustainability perspectives in the innovation process.

Type of Instruction

The course consists of lectures, workshops and seminars based on the different competences and perspectives of the participating disciplines. Teaching is carried out on campus.

Examination

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

The course is examined through handin assignments individually and in groups and an essay on reflection.

The grade A is the highest grade and the grade E is the lowest grade for passing the course. The grade F means that the student's performance is assessed as failed.

Assessment criteria for the A–F scale, along with information about how grades for individual assignments are weighted to calculate the final grades are communicated to the students in writing no later than at the start of the respective modules.

If the university has decided that a student has the right to special educational support due to a disability, the examiner may offer an adapted test or allow the student to conduct the test in an alternative form. For students who do not pass their first examinations, retake examinations are provided in accordance with Local regulations for courses and examinations at the first and second levels at Linnaeus University.

Course Evaluation

During or shortly after the course, a course evaluation is conducted. Results and analysis of the course evaluations are promptly communicated to the students who have taken the course. Students who are taking the course when it is offered the next time are informed of the results at the start of the course. The evaluation is anonymous.

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: 4FE041, 4FE161, 4FE165, 4MT042, 4DI711 and 4DI715, 7.5 credits each

Required Reading and Additional Study Material

Curedale, Robert. Design thinking –process and methods manual. Design Community College Inc. The latest edition in selection, ca 80 pages.

Barbour, Rosaline (2018). Doing focus groups. Sage. The latest edition. 177 pages.

Bryman, Alan and Bell, Emma. Business Research Methods. Oxford University Press. New York. The latest edition in selection, ca 250 pages.

Thiel, David V. (2014). Research Methods for Engineers. Cambridge University Press. The latest edition. 306 pages.

Scientific articles, ca 150 pages.