



Course syllabus

Faculty of Technology

Department of Forestry and Wood Technology

4TS047 Innovationsprocess och forskningsmetoder, 7.5 credits
Innovation Process and Research Methods

Main field of study

Mechanical Engineering, Forest and Wood Engineering

Subject Group

Forest Science

Level of classification

Second Level

Progression

A1F

Date of Ratification

Approved by Faculty of Technology 2022-04-18

The course syllabus is valid from spring semester 2023

Prerequisites

General entry requirements for studies at the second-cycle level and specific entry requirements:

- at least 15 credits of the programme course “Local Innovation” or the equivalent
- English 6 or the equivalent.

Objectives

After completing the module, the student should be able to

- analyse and strategically evaluate different research methods as applied in an innovation process
- reflect upon and evaluate the significance, application, and consequences of different methods in the implementation of a transdisciplinary innovation project
- reflect upon and evaluate different methods’ potential and limitations, as well as their roles, in the implementation of an innovation process
- identify and analyse what further knowledge is needed in the theory and practice of research, based on different competencies in the fields of economics, technology, and design
- assess different research methods from the points of view of ethics and sustainability.

Content

This course consists of a series of lectures and seminars that support the transdisciplinary innovation projects through reflection on the different disciplines' approaches to research and research methods.

The module comprises the following parts:

- philosophy of science and its basic concepts
- introduction to different academic traditions, their methods, and their application
- ethical and sustainability aspects in research linked to transdisciplinary innovation projects.

Type of Instruction

Teaching is delivered in the form of lectures and seminars, based on the different competencies and perspectives of the participant disciplines. The seminars are supported by supervisors from all the relevant disciplines. Instruction is in English and takes place on campus.

Examination

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

Hand-in assignments (3 credits) and a reflection paper (4.5 credits)

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. Grading criteria for the A–F scale are communicated in writing no later than when the course starts.

If the university has decided that a student is entitled to special pedagogical support due to a disability, the examiner has the right to adapt the exam or to let the student conduct the exam in an alternative way. Resit examination is offered in accordance with Local regulations for courses and examination at the first and second-cycle level at Linnaeus University.

Course Evaluation

During or shortly after the course, a course evaluation should be conducted. The result and analysis of the course evaluation should be promptly communicated to the students who have taken the course. Students who are taking the course when it is offered the next time should be informed of the result at the course introduction. The course 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:
4FE043/4TS043/4DI721 and 4FE163/4TS343/4DI723 7.5 credits. Module 5:
4FE168/4TS347/4DI713 7.5 hp.

Required Reading and Additional Study Material

Course literature

van Aken, Joan, Berends, Hans, and van der Bij, Hans. Problem Solving in Organizations. New York: Cambridge university press. Senaste upplagan. 245 sidor.

Reference literature

Björk, Lennart, Björk Maj & Räisänen, Christine. Academic Writing: a University Writing Course. Lund: Studentlitteratur. Senaste upplagan. 399 sidor.

Scientific articles, 500 pages.