



DM2803 Transformative Change in Complex Systems, Project Course 15.0 credits

Transformativ förändring i komplexa system, projektkurs

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

The official course syllabus is valid from the autumn semester 2025 in accordance with the decision by the Faculty Board: J-2024-2202. Date of decision: 2024-10-08

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Computer Science and Engineering

Specific prerequisites

Knowledge in management of complex change processes, 7.5 credits, equivalent to completed course DM2800.

Knowledge in sustainability, 6 credits, equivalent to completed course DM2573/AL1504/AL1523.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the student should be able to

- identify and analyse needs, challenges, and goal conflicts within the scope of a given complex societal challenge
- give an account of their own contribution to transformative change in complex systems given limited information and by using inter- and trans-disciplinary co-creative processes
- give an account of their own contribution to their own and others' transformative learning
- evaluate the need for and develop the key competencies that are required for a sustainable adaptation
- evaluate interventions aiming to achieve change in complex systems in relation to what favours the society, humans, other species and ecosystems locally as well as globally in the short and long term
- provide arguments for which interventions are needed and which are not

in order to

- be able to respond to and handle intractable problems in challenge-driven projects
- be able to encourage and lead change in a world that is increasingly characterised by volatility, uncertainty, complexity and ambiguity.

Course contents

In this challenge run project course may the students possibility to analyse and handle complex and intractable sustainability problems in collaboration with the surrounding society. The students learn to identify and analyse needs, challenges and goal conflicts and to design interventions that intend to achieve change in project form. The projects will be based on sustainability-related problems that stakeholder in the surrounding society have formulated. In the course students also evaluate interventions to ensure they favour the society in general, organisations, individuals, other species and whole ecosystems locally as well as global, in the short and long term . The students will also be given tools to lead trans-disciplinary co-creative processes where also transformative learning can identify and develop. The projects are reported both orally and in writing.

Examination

- DEL1 - Active participation, 3.0 credits, grading scale: P, F
- PRO1 - Project work, 10.0 credits, grading scale: P, F
- INL1 - Hand-in assignment, 2.0 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.