



FAL3305 Theory of science for sustainable development, environmental science and technology 7.5 credits

Vetenskapsteori för hållbar utveckling, miljövetenskap och teknik

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

Establishment

The official course syllabus is valid from the spring alt. autumn semester 2026 as decided by the Faculty Board: dnr HS-2025-2868. Decision date: 2026-01-22

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Basic eligibility for doctoral education.

Intended learning outcomes

After completing the course, students should be able to:

- Explain the scientific disciplines of engineering, natural sciences, social sciences and humanities by describing how they differ in their assumptions about the nature of reality and how knowledge can be attained.
- Use theoretical starting points for interdisciplinary, multidisciplinary and transdisciplinary research, and demonstrate ways of addressing the challenges this entails.
- Present and discuss the theoretical foundations behind research methods and research results in their own research project.

Course contents

- Lecturer
- Seminars
- Presentations and writing assignments.

Examination

- SEM1 - Seminars, including presentation of the theory and interdisciplinarity of one's own doctoral project, 3.0 credits, grading scale: P, F
- INL1 - Written presentation of theory in own article or equivalent, with note on theoretical basis for interdisciplinarity., 3.0 credits, grading scale: P, F
- INL2 - A written assignment that examines the ability to explain and contrast theory and knowledge claims within different branches of science, 1.5 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.