LT1095 Learning and sustainable development 6.0 credits

Lärande och hållbar utveckling

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

Establishment

The official course syllabus is valid from the autumn semester 2026 as decided by the Faculty Board: dnr HS-2025-0013. Decision date: 2025-11-06

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

At least one university-level course covering the fundamentals of sustainable development, equivalent to at least 5 credits, e.g. AL1130.

At least 15 credits in pedagogy, didactics and/or VFU.

Intended learning outcomes

1. Describe and analyse key concepts, goals and challenges in sustainable development

2. **Propose and justify **strategies and measures for various opportunities to promote sustainable development from a systems analysis perspective.

3. Critically examine and evaluate various technical, scientific and societal solutions to sustainability challenges, and discuss their consequences and trade-offs in relation to the global goals for sustainable development.

4. Plan, implement and evaluate teaching modules on sustainable development for upper secondary school that integrate subject knowledge in technology, mathematics, physics, chemistry, energy and the environment, or computer science.

5. Apply and justify didactic methods, including digital and technological tools, to support pupils' learning about sustainable development.

6. Reflect on their own role as teachers and engineers in promoting sustainable development, as well as on ethical and democratic aspects of teaching sustainability issues.

Course contents

The overall aim of the course is to provide an overview of sustainable development and to create conditions for learning about sustainable development. The focus is on how to develop learning for sustainable development, but also on the threats and opportunities that our lifestyle and technological development can have on sustainable development.

The course deals with sustainable development from a learning perspective and an engineering perspective, and builds on basic knowledge in pedagogy and sustainable development.

The course covers the following areas

Sustainable development with a focus on ecological and social sustainability
Challenges and opportunities for sustainable development in society, with a focus on the role of learning.
The role of technology in sustainable social development (strategies, systems analysis approaches)
Didactic and theoretical perspectives on learning and sustainable development.
Orientation in steering documents on education for sustainable development.
Methods for planning and implementing teaching for sustainable development.

Examination

- PRO1 - Project, 2.0 credits, grading scale: P, F
- SEM1 - Seminars, 2.0 credits, grading scale: P, F
- INL1 - Assignments, 2.0 credits, grading scale: A, B, C, D, E, FX, 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.