LT2044 Teaching and Learning in Technology and Engineering, part 1 6.0 credits

Ämnesdidaktik: Lärande och undervisning i teknik, del 1

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

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

Establishment

On 2023-10-05, the Head of the ITM School has decided to establish this official course syllabus to apply from the spring semester VT2024, registration number: M-2023-1883

Grading scale

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

Education cycle

Second cycle

Main field of study

Technology and Learning

Additional regulations

School Placement (VFU) is carried out in parallel with this course. At the placement school, data collection, interviews, etc. may be required.

Specific prerequisites

Passed grade (lowest Pass resp E) on the courses LT1045 School Placement 1 (15 ECTS) and UM7101Science Education, Curriculum Studies and Assessment (10 ECTS)

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:

1. Describe the emergence of current technology subjects and their predecessor's history in compulsory school and upper secondary school, from curriculum-theoretical and epistemological perspectives

2. Discuss the purpose of the technical subjects and their relation to other school subjects, to the general aims, mission and guidelines of the school, and to the qualitative targets of the upper-secondary school programmes

3 Problematise the technical subjects and their place in the school system from perspectives of equality, equal opportunities, and diversity

4 Discuss and critically evaluate creative work in the technology subjects with a special focus on technical development work

5 Plan technology teaching for a longer period, in accordance with current policy documents, with reasonable progression and with regard to other school subjects and pupils' various interests.

6 Discuss how different teaching resources and aids (both digital and analogue) can support pupils' learning in the technology subject

7 Discuss and analyse assessment and grading in technology, based on current regulations and proven experience.

Course contents

Technology teaching and learning, primarily for upper secondary school and the upper years of compulsory school. The contents span from the subjects' history and place in the education system to teaching and assessment methods. Special attention is given to the role of the technology subjects in the larger whole that the school system constitutes, and to gender and gender equality aspects on technology and technology education.

Examination

- INL1 - Written assignments, 4.0 credits, grading scale: A, B, C, D, E, FX, F
- SEM1 - Seminars, 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.

The final grade is determined by the grade for INL1.

Other requirements for final grade

Active participation in compulsory seminars.

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.