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.

Establishment

On 15/10/2021, the Dean of the ITM School has decided to establish this official course syllabus to apply from autumn term 2022 (registration number M-2021-1856).

Grading scale

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

Education cycle

Second cycle

Main field of study

Technology and Learning

Specific prerequisites

Passing grade (minimum Pass or E) for the courses LT1041 School Placement 1 (15 credits), and UM7101 Science Education, Curriculum Studies and Assessment (10 credits).

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 shall be able to

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

2. Discuss the technical subjects' aim and their relation to other school subjects, to the general aims, missions and guidelines of the school, and to upper-secondary school programmes' qualitative target

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

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

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

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

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

Course contents

Learning and teaching of technology, primarily for upper-secondary and secondary school. The contents stretch from the history and place of the subjects 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

- SEM1 - Seminars, 2.0 credits, grading scale: P, F
- INL1 - Written assignments, 4.0 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.

The final grade is decided 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.

Additional regulations

Placement is carried out in parallel with this course. Data collection, interviews and the like at the placement school can occur.