LT2045 Teaching and Learning in Technology and Engineering, part 2 6.0 credits

Lärande och undervisning i teknik, del 2

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

Establishment

On 2023-10-04, the Head of the ITM School has decided to establish this official course syllabus to apply from the spring semester VT2024, registration number: M-2023-1884

Grading scale

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

Education cycle

Second cycle

Main field of study

Technology and Learning

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 one or several ways of regarding and classifying technical knowledge, and apply this in their planning and analysis of teaching and assessment in compulsory and/or upper-secondary school.

2. Contrast technical knowledge and skills against other skills and, based on this, discuss the place of the technical subjects in the education system

3. Give examples of how technology teaching can and should be adapted for pupils with special needs

4. Plan and analyse inquiry-based work in the technology subjects, including aspects of assessment

Problematise and critically examine the use of different teaching resources and aids in technology teaching (both digital and analogue)

Given an account of current research on teaching and learning technology in a specific field and discuss its relevance for the teaching in compulsory school and/or upper-secondary school.

Course contents

This is an advanced course in the didactics of technology which advances the students' knowledge within the epistemology of technology, and discusses the place of the technical subjects in the education system. A large part of the course is devoted to studies of recent scientific articles within technology didactics, within an area selected by the course coordinator in consultation with the students.

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 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.

Additional regulations

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