



# 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 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-2021-1857).

## **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 should be able to

1. Describe some of the ways to regard and classify technical knowledge, and apply this to planning and analysing teaching and assessment in primary 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 example of how technology instruction can and should be adapted for pupils with special needs
4. Plan and analyse examining work in the technology subjects including assessment aspects
5. Problematise and review the use of different teaching resources and aids critically (both digital and analogue) in technology instruction
6. Account for current research about teaching and learning technology in a specific field and discuss its relevance for the teaching in primary, secondary and/or upper-secondary school.

## Course contents

Advanced course in the didactics where knowledge in the epistemology of technology is deepened and the place of the technical subjects in the education system are discussed. Large part of the time is devoted to studies of current technology didactics scientific articles in a field that the course coordinator determines after having consulted 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 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.