



# LT1092 Cognitive psychology for teaching and learning 5.0 credits

Kognitiv psykologi för undervisning och lärande

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

## Establishment

The official course syllabus is valid from the spring semester 2027 as decided by the Faculty Board decision HS-2025-2855. Date of decision: 2025-10-08

## Grading scale

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

## Education cycle

First cycle

## Main field of study

Technology

## Specific prerequisites

Basic eligibility for higher education

## Intended learning outcomes

After completing the course, students should be able to:

1. Describe and explain basic concepts in cognitive psychology, with a particular focus on memory, cognition and learning in an educational context, and give examples of how these concepts can be implemented in classroom situations.
2. Analyse learning situations and argue, based on current research in cognitive psychology, what can hinder or facilitate student learning.
3. Design a teaching plan or a practical research project that integrates knowledge of cognitive psychology and learning strategies, and justify the choices with support from relevant research.

## Course contents

The course aims to provide a basic understanding of cognitive psychology and how this knowledge can be used to improve teaching and learning. The focus is on application in classroom situations and critical review of education-related research. Students are assessed through quizzes, case assignments, peer review, and participation in workshops and presentations.

- Introduction to basic concepts in cognitive psychology, such as working memory, long-term memory, cognitive load, and metacognition.
- Evidence-based learning strategies – e.g. retrieval practice, spaced practice, elaboration and concrete examples – and how these can be used in instructional design.
- Analysis of learning situations and teaching practice based on psychological research, including work with authentic cases.
- Design of classroom activities where activities are planned, justified and analysed with support from current research.

## Examination

- EXA1 - Exam, 5.0 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.