MH1040 Material selection 1.5 credits

Materialval

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

Establishment

The official course syllabus is valid from the spring semester 2026 in accordance with the decision from the Faculty board of the ITM school: M-2024-0018. Date of decision: 2024-10-14.

Grading scale

P, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

General entry requirements.

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. Independently justify and apply material selection methodology in the design of structures and products based on life cycle perspectives together with sustainability and recycling aspects.

Course contents

The course deals with:

- Systematic material selection methodology supported by material selection tools.
- That in the product development process, requirements are formulated that are linked to the function of the product, which in turn are linked to the properties of the materials.
- That the choice of materials is of great importance from a sustainability perspective. The course also includes the use of methods to analyse the environmental impact of material selection throughout the life cycle of products.

Examination

- INL1 - Hand-in exercise, 1.5 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.

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.