



AF1769 Construction Damages- 7.5 credits

Skador och skademekanismer

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

Establishment

The official course syllabus is valid from fall semester 2027 as decided by the Director of First and Second Cycle Education. Decision date: 2026-10-06.

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

AF1744 Building Techniques, Heat and Moisture Transfer 7.5 credits

Intended learning outcomes

After passing the course, the student should be able to:

- identify moisture damage in commonly occurring risk structures and suggest appropriate measures for repair and preventative maintenance

- perform simple moisture calculations for different structural components
- explain the impact of moisture on the indoor climate
- calculate the required drying times for concrete floors
- explain the risks associated with moisture in wood
- describe the work involved in preventing moisture damage and thereby promoting sustainable development
- propose structural engineering solutions and repair measures that reduce environmental impact.

Course contents

- Structural risks in buildings with regard to moisture.
- Moisture impact mainly on concrete and wood materials.
- Moisture impact on indoor environment and 'sick buildings'.
- Damage to structures caused by fire and frost.
- Calculations of drying time for concrete.
- Reduced environmental impact through relevant repair measures.
- Sustainability and the service life of buildings and structures through preventive measures against damage and deterioration.

Examination

- PRO1 - Project, 1.5 credits, grading scale: P, F
- LAB1 - Laboratory work, 1.5 credits, grading scale: P, F
- TEN1 - Written exam, 4.5 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.