

Course syllabus

Arkitekturteknik 2: Byggnadsmaterial Building Materials

VBMA05, 3 credits, G1 (First Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED V

Date of Decision: 2023-03-21

General Information

Main field: Architecture.

Compulsory for: A1

Language of instruction: The course will be given in Swedish

Aim

The aim of the course is to give basic knowledge about the properties of most building materials

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- be able to identify the most common building materials
- be able to describe the structure, manufacturing processes and properties of the most common building materials
- be able to describe the relationship between a material's structure and its properties
- be able to account for environmental impact of some building materials

Competences and skills

For a passing grade the student must

- be able to identify important requirements in various environments and how these affect the materials
- be able to perform laboratory experiments and evaluate its results

Contents

The course focus mainly on:

- density and porosity
- heat and moisture related properties
- durability and service life in different environments
- the manufacture and micro structure of the most common building materials

The students perform two student experiments in groups of max four students.

Examination details

Grading scale: UG - (U,G) - (Fail, Pass)

Assessment: Written examination and student experiments.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Parts

Code: 0113. **Name:** Written Examination.

Credits: 2. **Grading scale:** UG. **Assessment:** Written examination

Code: 0213. **Name:** Laboratory Work.

Credits: 1. **Grading scale:** UG. **Assessment:** Laboratory Work

Admission

Assumed prior knowledge: VBKA05 Architectural Design

The number of participants is limited to: No

The course overlaps following course/s: VBMA25, VBMA30, VBMA35, VBM011, VBM012, VBM611

Reading list

- Burström, P.G.: Byggnadsmaterial, 4:e upplagan. Studentlitteratur, 2021, ISBN: 9789144151786.
- Exercises provided during the course and supplementary course materials available on the course website.

Contact and other information

Course coordinator: Maria Fredriksson, maria.fredriksson@byggtek.lth.se

Course administrator: Linnea Ekman, linnea.ekman@ebd.lth.se

Course homepage: <http://www.byggnadsmaterial.lth.se/utbildning/vbma05/>