

## Introduction to Building Construction

Code: MK3MAG2S6SX17-EN

ECTS Credit Points: 6 credits

Evaluation: exam grade

Year, Semester: 1<sup>st</sup> year, 2<sup>nd</sup> semester

Its prerequisite(s): Descriptive Geometry, Civil Engineering Draw

Further courses are built on it: Yes

Number of teaching hours/week (lecture + practice): 2+2

### Topics:

Subjects of building construction science. Primary and inferior structures of buildings. Effects on buildings, requirements. Horizontal load-bearing structures. Arches. Solid floors. Monolithic and prefabricated RC floor structures. Frame-type buildings, architectural features. Structure of monolithic RC frame buildings, space limiting structures. Foundation and under grade insulation. Pitched roof: roof truss and roofing. Flat roof. Door (external and internal), window. Floor, stairs. Chimneys and ventilation shafts. Floor finish, façade finish (envelope).

In seminar there are six tasks to elaborate: 3 homework drawings and 3 workshop drawings.

### Literature:

#### *Compulsory:*

- AMBROSE, James E.: Building structures, ISBN 0471540609 Wiley, New York 1993.
- BÖHÖNYEY, J.: Building construction encyclopaedia. Iparterv, Budapest 1986.

### Schedule

<b>1<sup>st</sup> week Registration week</b>	
<b>2<sup>nd</sup> week:</b> <b>Lecture:</b> Subjects of building construction science. Primary and inferior structures of buildings. Effects on buildings, requirements. <b>Practice:</b> issuing task 1 (homework drawing). Elaborating the workshop drawing 1.	<b>3<sup>rd</sup> week:</b> <b>Lecture:</b> Horizontal load-bearing structures. Arches. Solid floors. Monolithic and prefabricated RC floor structures. Frame-type buildings, architectural features. Structure of monolithic RC frame buildings, space limiting structures. <b>Practice:</b> consultation of task 1 (homework drawing)
<b>4<sup>th</sup> week:</b> <b>Lecture:</b> Foundation. <b>Practice:</b> consultation of task 1 (homework drawing)	<b>5<sup>th</sup> week:</b> <b>Lecture:</b> Under grade insulation. <b>Practice:</b> submitting task 1 (homework drawing). Elaborating the workshop drawing 2.
<b>6<sup>th</sup> week:</b> <b>Lecture:</b> Pitched roof: roof truss and roofing 1. <b>Practice:</b> Issuing task 2 (homework drawing). Elaborating the workshop drawing 3.	<b>7<sup>th</sup> week:</b> <b>Lecture: Mid-term test</b> <b>Practice:</b> consultation of task 2 (homework drawing)
<b>8<sup>th</sup> week: 1<sup>st</sup> drawing week</b>	
<b>9<sup>th</sup> week:</b> <b>Lecture:</b> Pitched roof: roof truss and roofing 1. Flat roof.	<b>10<sup>th</sup> week:</b> <b>Lecture:</b> Door (external and internal), window. <b>Practice:</b> submitting task 2 (homework drawing). Issuing task 3 (homework drawing).

**Practice:** consultation of task 2 (homework drawing)

**11<sup>th</sup> week:**

**Lecture:** Floor, stairs.

Chimneys and ventilation shafts.

**Practice:** consultation of task 3 (homework drawing)

**13<sup>th</sup> week:**

**Lecture:** Façade finish (envelope).

**Practice:** submitting task 3 (homework drawing).

**12<sup>th</sup> week:**

**Lecture:** Floor finish.

**Practice:** consultation of task 3 (homework drawing)

**14<sup>th</sup> week:**

**End-term test**

**15<sup>th</sup> week: 2<sup>nd</sup> drawing week**

## Requirements

### A, for a signature:

Attendance at lectures is recommended, but not compulsory.

Participation at practice is compulsory. Students must attend the practice classes and may not miss more than three practice classes during the semester. In case a student misses more than three, the subject will not be signed and the student must repeat the course. Students can't make up a practice with another group. Attendance at practice will be recorded by the practice leader. Being late is counted as an absence. In case of further absences, a medical certificate needs to be presented. Missed practices should be made up for at a later date, to be discussed with the tutor. Students are required to bring the drawing tasks and drawing instruments for the course with them to each practice. Active participation is evaluated by the teacher in every class. If a student's behaviour or conduct doesn't meet the requirements of active participation, the teacher may evaluate his/her participation as an absence due to the lack of active participation in class.

Students have to submit all the six drawing tasks as scheduled minimum at a sufficient level.

During the semester there are two tests: the mid-term test is in the 7th week and the end-term test in the 15th week. Students have to sit for the tests.

Homework drawings: 3 x 25 points = 75 points

Tests: 2 x 25 points = 50 points

Workshop drawings: bonus points (max. 5, for all)

Mid-semester points  $\Sigma$  125 points

For signature students must achieve more than 50% of points (63 points).

### B, for a grade:

The course ends in an exam.

Mid-semester points: 125 points

Colloquium: 50 points

$\Sigma$  175 points

Score	Grade
0-87	fail (1)
88-109	pass (2)
110-131	satisfactory (3)
132-153	good (4)
154-175	excellent (5)