

Building Construction 4.
Course Code: EPB104AN
Semester: Spring 2018/2019

Course Syllabus
Schedule: Tuesday, periods 2-4 (08:30-11:00)
Location: PTE PMMIK, 'A'-007

General Information:

Name of Course: **BUILDING CONSTRUCTION IV.**
Course Code: EPB104AN
Semester: 4th
Number of Credits: 3
Allotment of Hours per Week: 3 Lectures / Week
Evaluation: Graded upon course work
Prerequisites: Building Construction III.

Instructors: **Dr Gergely SZTRANYÁK, assistant professor**
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Introduction, Learning Outcomes:

The aim of the course is that students be able to make construction plan-like solutions based on the previous studies. Students need to work individually and in groups.

General Course Description and Main Content:

During the last two semesters students learned the construction methods of load-bearing wall from the foundation up to the roof structure. During this semester students will learn the constructional solutions of the reinforced concrete skeleton structures and we will get an overview of the topics of waterproofing, flooring and separation wall systems.

Methodology:

The course is based on individual architectural skills with regular presentations.

Studio Culture:

The course is based on through collaboration, participation and discussions through lessons. This is an interaction between Students and Faculty; used the teaching methods like 'Problem-based learning' and 'learning-by-doing'. The communication and work should be reflect a respect for fellow students and their desire to work with regard to noise levels, noxious fumes, etc. – from each site of participants.

Requirements of the 15 weeks:

Appearance:

Not compulsory at the lectures.

Requirements for getting the semester signature at the end of the 15 weeks:

Handing in the study on the last week of the semester.

Writing the exams during the semester and having minimum 10 points for each (10 points for the 1st and 10 points for the 2nd).

Written Tests:

According to the topics of the lectures students will be tested how much they have learned of the heard knowledge of the classes. During the tests students should not use any helping aids. They need to work on paper sheets according to the given sample/layout: 8 sheets of papers stapled in size A/4 with line frames + covering paper. From this students need to hand in 2 pockets (1 for each written exam) until the end of the 4th week.

Topic of the study:

Reinforced concrete skeleton buildings with exposed concrete surface.

Relation between architectural appearance and structure.

A4 format PDF.

Text: 2500 characters

Pictures for understanding

Recommended book: Andrea Deplazes: Constructing Architecture. Birkhäuser, Basel

Obtainable Semester Points:	TOPICS/TASKS	POINTS
Written Test I	Lectures of week 1-6	20
	minimum points:	11
Written Test I	Lectures of week 8-14	20
	minimum points:	11
Study	Reinforced concrete skeleton	60
	minimum points:	32
ALL MAXIMUM POINTS:		100
MINIMUM POINTS FOR THE SEMESTER SIGNATURE:		54

Evaluation and Grading:

According to the achieved points students can reach the following grades.

5: Outstanding work. Execution of work is thoroughly complete and demonstrates a superior level of achievement overall with a clear attention to detail in the production of drawings and other forms of presentation. The student is able to synthesize the course material with new concepts in a thoughtful manner, and communicate his/her ideas in an exemplary way.

4: High quality work. Student work demonstrates a high level of craft, consistency, and thoroughness throughout drawing and presentation work. The student demonstrates a level of thoughtfulness in addressing concepts and ideas, and participating in group discussions. Work may demonstrate excellence but less consistently than a '5' student.

3: Satisfactory work. Student work demonstrates problem solution with few minor or major problems. Drawing and presentation work are complete and satisfactory, showing minor problems in detail.

2: Less than satisfactory work. Drawing and presentation work is substandard, incomplete in significant ways, showing insufficient attention to details.

1: Unsatisfactory work. Student work demonstrates several major problems in the basic knowledge needed to solve the tasks of the course. Drawing and presentation work is insufficient and weak.

Grading Scale:

Numeric Grade:	5	4	3	2	1
Evaluation in points:	88-100	77-87	66-76	55-65	0-54

Acceptation of points in case of course repetition:

The points of Study can be accepted. Written Tests need to be repeated. For the acceptance students need to write a request for the following e-mail adress: sztranyak.gergely@pmmik.pte.hu until the end of the 4th week. The request has to contain when and at which consultant gave the points.

Possibilities for correction:

Students have the possibility to rewrite the tests in the first two weeks of the exam period – there will be two extra appointments for each Written Tests.

Students have the possibility to redo the Study in the first week of the exam period.

(21.05.2019 Tuesday, 11-12 o'clock in office B322)

Students with Special Needs:

Students with a disability and needs to request special accommodations, please, notify the Deans Office. Proper documentation of disability will be required. All attempts to provide an equal learning environment for all will be made.

Readings and Reference Materials:

Francis D. K. Ching: Building Structures Illustrated. Wiley, USA

Francis D. K. Ching: European Building Construction Illustrated. Wiley, USA

Andrea Deplazes: Constructing Architecture. Birkhäuser, Basel

Schedule:

WEEK	LECTURE
1	Introduction
2	Reinforced concrete skeleton structures -history, principles of design, elements, details
3	Reinforced concrete skeleton structures -history, principles of design, elements, details
4	Waterproofing of flat roofs – principles of design
5	Waterproofing of flat roofs – principles of design, terrace roofs, green roofs, non-walkable roofs, roofs for parking
6	Waterproofing of flat roofs – principles of design, terrace roofs, green roofs, non-walkable roofs, roofs for parking
7	EXAM I.
8	Waterproofing in the ground – principles of design, materials
9	Waterproofing in the ground – principles of design, materials
10	SEMESTER BREAK
11	Waterproofing in wet functions – principles of design, materials
12	Waterproofing – follow-up wall waterproofing methods
13	Floor systems
14	Dry wall constructions
15	EXAM II.