BULDING MATERIALS AND PRODUCTS

2022/23. 2. SEMESTER

BASICS			
COURSE NAME	**Építőanyagok és termékek**		**Building materials and products**
COURSE CODE(S)	YCRÉPTEBNF		
DEPARTMENT	Óbuda University, Faculty of Architecture and Civil Engineering, Institute of Civil Engineering		
PROGRAMME, TRAINING	Civil Engineer BSc		full-time and Erasmus
COURSE INSTRUCTOR (Instructor managing the course)	Dr. Sándor FEHÉRVÁRI PhD, Associate Professor	fehervari.sandor@ybl.uni-obuda.hu	consulting hours: to be considered later
INSTRUCTORS, LECTURERS	Ferenc NEMODA, Distinguished Tutor	nemoda.ferenc@ybl.uni-obuda.hu	consulting hours: to be considered later
PRE-REQUIREMENT	1 semesters of Constuction Materials		
HOURS OF LECTURES (WEEKLY)	1 hours		
HOURS OF CLASSROOM PRACTICE/ LAB EXERCISE (WEEKLY)	2 hours		
FIELD AND TRAINING (WEEKLY)	0 hours		
ASSIGNMENT	Midsemester tests, homework and exam		
CREDITS	7 credits (ECTS)		
AIM OF THE COURSE; BRIEF DESCRIPTION	Students become familiar with the basic mechanical and physical properties of construction materials. Basic physical, mechanical, and hydromechanical properties of the most important structural materials: iron, steel, timber, ceramics, bricks and masonry elements, artificial and natural stones, glass, polymers.		
RECOMMENDED LITERATURE	a) Study Aids. b) Everett, Alan: Materials. Mitchel's building series. ISBN 0-7134-5442-3		
REQUIRED TECHNICAL APPLIANCES/ SOFTWARE	The use of mobile phones is prohibited during the examinations. In the case of online education: Contact: Neptun, E-learning (Moodle) and E-mail. Education materials: According to E-learning (Moodle) Lessons: E-learning, MS Teams		

SCHEDULE OF THE SEMESTER

WEEK	LECTURE	LECTURER	FORM OF PRACTICE	PROGRAM OF PRACTICE
1.	Natural stones	FS, NF	lab exercise	Natural stones, products and properties
2.	Artificial stones	FS, NF	lab exercise	Artificial stones, products and properties Homework study: building choice (uploading)
3.	Wood and timber	FS, NF	lab exercise	Wood and timber, products and properties, harmful organisms
4.	Metals I., construction metals	FS, NF	lab exercise	Metals with express yield stresses (test report)
5.	Metals II., joints and corrosion	FS, NF	lab exercise	Metals without express yield stresses (test report)
6.	Ceramic products I.	FS, NF	lab exercise	1st Test: Natural and artificial stones, timbers, metals
7.	Ceramic products II.	FS, NF	lab exercise	Ceramic products, grouping, properties Homework study: deadline of consultation (uploading)
8.	Insulation materials	FS, NF	lab exercise	Insulation materials, products and properties
9.	Waterproofing materials	FS, NF	lab exercise	Waterproofing materials, products and properties
10.	Polymers used in constructions	FS, NF	lab exercise	2nd Test: Ceramic, insulation and waterproofing materials
11.	Glass products	FS, NF	lab exercise	Glass products, grouping and properties
12.	Summarisation	FS, NF	lab exercise	Summarisation Homework study: deadline of uploading of final study
13.	Repetition possibility for the tests	FS, NF	lab exercise	Repetition possibility for the tests

REQUIREMENTS FOR THE COMPLETION OF THE SEMESTER		
MID-SEMESTER TASKS AND TESTS		
Requirement	**Description**	**Value** *(point, %, grade)*
PARTICIPATION AT LESSONS	The practice lessons can be missed up to three times (see § 46 ETVSZ)	-
IN CASE OF ABSENCE FROM LESSONS AND EXAMINATIONS	Absence is considered to be justified with a medical certificate presented.	-
Short description of the TASKS	At midsemester tests (2 pcs) are achievable max. number of points 20 points: - 1st midterm theory test: Max. 10 points may be obtained, - 2nd midterm theory test: Max. 10 points may be achieved. At least 5 points are to be collected in each test. It will ensure repetitions possibility of both tests at the end of the semester.	20 points
Short description of the TASKS	Homework: Description of a freely chosen building or structures, in respect of its construction materials. Brief history, material recognitions, corrosion states, a proposal for renovation (techniques and materials). At least 5 points are to be collected in this work.	10 points
Pre-exam / exam	Summarizing exam will be held at the examining period. Max. 30 points may be achieved. For this exam, at least 15 points are to be collected.	30 points
TOTAL		60 points

<table>
<tr><th colspan="6">SEMESTER CLOSING REQUIREMENTS</th></tr>
<tr><td>CONDITIONS FOR OBTAINING A SIGNATURE</td><td colspan="5">Successful midterm tests, acceptable homework, adequate participation.</td></tr>
<tr><td rowspan="3">CONDITIONS FOR OBTAINING AN OFFERED GRADE</td><td colspan="5">17 out of the 20 points has to be reached in the test and at least 25 points together with the semester tasks. Then the points are doubled, and a grade is offered without the exam.</td></tr>
<tr><td colspan="2">50-52 Point</td><td colspan="3">53-60 Point</td></tr>
<tr><td colspan="2">4 - GOOD</td><td colspan="3">5 - EXCELLENT</td></tr>
<tr><td>CONDITIONS FOR ADMISSION TO THE EXAM</td><td colspan="5">Only students who have already obtained a signature can take the exam.
During the exam period, the student has to register for the exam in the Neptun.
The test is a 60-minute written test with a total value of 30 points.

The semester and the exam point are summarised.</td></tr>
<tr><td rowspan="2">EXAM GRADE</td><td>Below 30 points</td><td>30-37</td><td>38-44</td><td>45-52</td><td>53-60</td></tr>
<tr><td>1 - FAIL</td><td>2 - PASS</td><td>3 - SATISFACTORY</td><td>4 - GOOD</td><td>5 - EXCELLENT</td></tr>
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