

<b>Name of subject:</b>	Construction Materials II.	<b>Neptun code:</b>	BMEEOEMAS41	
<b>Lecturer/s:</b>	Dr. Olivér FENYVESI			
<b>Weekly detailing of the program:</b>				
week	Lectured syllabi	Laboratory syllabi	Mid term tests / H.W.	
1.	Aspects and requirements of selection of construction materials. Application fields of construction materials.	Metal corrosion, hardness and impact strength		
2.	-	Testing od deformations		
3.	Shrinkage and deformations of concrete and other cementitious materials, early age shrinkage cracking, influencing parameters, internal curing effect	NDT tests on building site.	H.W. (issuance)	
4.	-	Building diagnostics		
5.	Fibre reinforced concrete, mechanical properties, fresh concrete properties, durability, fire resistance, . Lightweight concretes, types, aggregate production, test methods, mechanical and hydrotechnical properties of LWCs.	Surface protection		
6.	-	Mortars		
7.	Metals. Aluminium and aluminium alloys. Production of iron and steel. Phase behaviour of iron-carbon alloys. Morphology of metals. Martenzit. Heat treatments for steel. Stainless steels. Corrosion of steel, protection against corrosion of metals.	Thermal and acoustic insulations.		
8.	-	Organic binders, consistency.		
9.	Midterm test	Special concretes.	Midterm test	
10.	-	Concrete pavements and roads.		
11.	Concrete corrosion: definitions and properties. Protection against concrete corrosion.	Wall, slab and roofing elements.	Repetition of midterm test	
12.	-	Glass properties		
13.	Polymers. Paints and surface layers. Pavement markings.	Computing practices		
14.	-	Computing practices (preexamination).	Submission of Home Works.	
<b>Possible repetitions:</b>	Late submission of H.W., Repeated mid term test..			
<b>Requirements to fulfil during the study period:</b>	Successful mid term test, Submission of homework. Minimum number of points is 50%.			
<b>Examination:</b>	Written, and on request possibility to improve orally if the written part is successful (50%).			
<b>Final evaluation:</b>	performance during the study period 40%, examination result 60%.			