CONSTRUCTION STUDIES I. 2025/26. 1. SEMESTER

MAIN INFORMATION				
COURSE NAME	**Konstrukciós Ismeretek 1**		**Construction Studies I.**	
COURSE CODE(S)	YAXCS1FMNF			
DEPARTMENT	Óbuda University Ybl Miklós Faculty of Architecture, Institute of Architecture			
PROGRAMME, TRAINING	Architect Msc		full time	
COURSE INSTRUCTOR (Instructor managing the course)	Dr. Gergely Norbert VIZI PhD, Assistant Professor	vizi.gergely.norbert@uni-obuda.hu	consulting hours: by prior arrangement, in the institute office	
INSTRUCTORS, LECTURERS				
PRE-REQUIREMENT				
HOURS OF LECTURES (WEEKLY)	1 hours (1x 45')		**HOURS OF CLASSROOM PRACTICE/ LAB EXERCISE (WEEKLY)**	1 hours (1x45')
ASSIGNMENT	Midterm assignment, and test		**CREDITS**	3 credits (ECTS)
BRIEF DESCRIPTION	• To get to a common knowledge on basic and ecological building structures and systems in Central Europe such as foundation-, wall-, slab, roof- structure, roof- and wall cladding structures. • To learn the requirements and applicability of this structures and • To get familiar with the required form and content of an execution plan with the help of the end term plan			
RECOMMENDED LITERATURE - **(Building Construction)**	dr. Gábor László (2006): Épületszerkezettan I-IV. UNIVERSITAS, Budapest Széll László (2011): Magasépítéstan I-II. TERC Kft., Budapest Bajza József (2015): Épület és szerkezete. TERC Kft., Budapest Fátrai György (2008): Történeti tetőszerkezetek. TERC Kft., Budapest Bársony István (2006): Magasépítéstan I. TERC Kft., Budapest Bársony István (2007): Magasépítéstan II. TERC Kft., Budapest Christian Schittich (ed.) (2008): Building Skins. BIRKHÄUSER EDITION DETAIL, Berlin Ansgar and Benedikt Schulz (2016): Perfect Scale. BIRKHÄUSER EDITION DETAIL, Berlin Christian Schittich (Ed.) (2006): Maisons individuelles. BIRKHÄUSER EDITION DETAIL, Berlin Christian Schittich (Ed.) (2010): Small Structures. BIRKHÄUSER EDITION DETAIL, Berlin Detail magazin https://www.detail-online.com/			
TECHNICAL EQUIPMENT REQUIRED	Rulers, pencils, A3-A2 paper. The use of mobile phones and notes are prohibited during the examinations. In the case of online education: Contact: Neptun, E-learning and E-mail. Education materials: According to E-learning Lessons: E-learning, Zoom			

SCHEDULE OF THE SEMESTER

WEEK	LECTURE	LECTURER	FORM OF PRACTICE	PROGRAM OF PRACTICE
1 09.10.	Introduction, Getting to know each other DICTIONARY, DESIGNING LAYER ORDER.	VGN	Handing out HW#1	Designing layer order for wall, slab, floor, footing Handing out **Project work #1** (execution plan)
2 09.17.	Building physics, heat, moisture	VGN	MGY1 Heat graphs	*HF1 consultation*
3 09.24 .	, WALLS, LINTEL BEAMS. • Design questions, External envelope impacts and requirements			Presenting 1:100 floor plans, designing the slab, layer sequences, and calculating heat insulation
4 10.01 .	FOUNDATIONS, FOOTING	VGN		*HF1 consultation: floorplan, section*
5 10.08.	SLABS	VGN	**1st. TEST**	*HF1 consultation: floorplan, section* ***roof structure***
6 10.15.	ROOF STUCTURES	VGN	MGY2: roof structure	HF1 Roof structure and section (with brick layout)
7 10.22.	ROOF CLADDINGS,			*HF1 consultation: elevation, details*
8 10.29.	TINSMITH WORK	VGN	MGY3: Detailing the eaves and selvedge.	Presenting HW#1 at 90%, getting signature
9 11.05.	LAYERED WALL SYSTEMS	VGN	MGY4: claddings **Handing in HW#1** Handing out HF2:	HF2: Frame structure layout and cladding plan 1:20 (1:25) section, part of floorplan, part of elevation, 2 pcs 1:10 (1:5) details
10 11.12.	WALL CLADDING KITS I. • DESIGN QUESTIONS, SUBSTRUCTURE SYSTEMS • BOARD AND METALLIC CLADDINGS	SE	HW1 expletive submission	HW#2 Consultation
11.19	RECTORAL BREAK			
11 11.26.	WALL CLADDING KITS II. • STONE AND BRICK CLADDINGS	VG	**2nd. TEST**	HW#2 Consultation
12 12.03.	Review, conclusion.	SE	CorTEST1	**Handing in HW#2**
13 12.10.	CorTEST2	VG	HF2 expletive submission	Evaulation

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) You have to arrive well prepared, otherwise you won't be marked as present in the lectures and seminars	-
IN CASE OF ABSENCE FROM LESSONS AND EXAMINATIONS	Absence is considered to be justified with a medical certificate presented.	-
MGY1 HEAT GRAPHS	Students calculate heat graps. *Formal requirements*: on provided pre-printed worksheet with pen, fineliner, pencil, ruler. *Handing in:* at the end of class. ade=adequate/ ina=inadequate	ade/ina
MGY2 ROOF STRUCTURES	The students prepare the drawing of a roof structure and make a model from self-brought materials. M=1:50 *Formal requirements*: you must work on the worksheet downloaded and printed from e-learning. Work with pencil. Free hand drawing is advised *Handing in:* at the end of class	ade/ina
MGY3 TINSMITH WORK	The students draw two eaves, and edges with proper tinsmith work. *Formal requirements*: you must work on the worksheet downloaded and printed from e-learning. Work with pencil. Free hand drawing is advised *Handing in:* at the end of class	ade/ina
MGY4 WALL CLADDINGS	A cladding and substructure drawing is created, where students will practice the rules of claddings' substructure design. *Formal requirements*: you must work on the worksheet downloaded and printed from e-learning. Work with pencil. Free hand drawing is advised *Handing in:* at the end of class	ade/ina
HF1 EXECUTION PLAN	The students will make an execution plan of a family house based on their previous knowledge with weekly consultation. *Formal requirements*: drawings on A2/A3-as paper S=1:50, 1:10 scale, drawings must be made by pencil with rulers. *Handing in:* as in schedule. teacher's signature required before handing in 1db floorplan M=1:50, 1 pcs section M=1:50, 1 pcs elevation M=1:50, 5pcs details	max 35 min 15
HF2 WALL CLADDING	As independent work, with weekly consultation the students prepare the wall cladding and substructure design for their building designed at the building design course. S=1:20(/1:25) scale in view, section, floorplan. *Formal requirements*: A3-as page M=1:20(/1:25) scale, with ruler. *Handing in:* 1 or 2 pcs. A3 page according to schedule. teacher's signature required before handing in	max 25 min 12,5
OPTIONAL TASK (NOT OBLIGATORY AND DOES NOT REPLACE ANY TASK OR PARTICIPATION IN ANY DUTY!)	Presentation connecting to the semester/ business trip report/ workbook presenting in the last lecture	max 6 pont
TEST (TS)	The goal of the TESTs is to check the general knowledge acquired from the subject. In the test we will basically require drawings worthy of an engineer with explanatory text. You should acquire 60% in the test to pass it.	TS1 max15 min 7,5 TS2 max25 min 12,5
TOTAL		100 pont

SEMESTER CLOSING REQUIREMENTS

CONDITIONS FOR OBTAINING A SIGNATURE	You have to do all of the tasks and have at least the minimum points from all of them separately. You have not skipped lectures and/or practice more than 3 times				
SEMESTER GRADE	0-50 pont	51-65	66-79	80-89	90-100
	1 - FAIL	2 - PASS	3 - SATISFACTORY	4 - GOOD	5 - EXCELLENT
SIGNATURE RETAKE EXAM	One out of the tests can be retaken in the signature retake exam, if the test and the corrective test was both unsuccessful. If neither the test and nor the corrective test was written (min 20% of the total points) the test can't be retaken in the signature retake exam. The signature retake exam will be from the whole material of the semester. OR One of the homework van be submitted, it the other was submitted during the semester and the points gained for those reaches the minimum requirement. In case of submitting with signature retake, the maximum point will be equal with the minimum point. SO One of the tests OR the building design part can be done with signature retake exam, not both!				