

## RELATED DISCIPLINES OF DESIGN

2023/24. 2. SEMESTER

ALAPADATOK			
COURSE NAME	Szakági tervezés		Related Disciplines of Design
COURSE CODE(S)	YAWRDAMNF		
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 VIZI PhD, Assistant Professor	vizi.gergely.norbert@ybl.uni-obuda.hu	Consultations: as on webpage
INSTRUCTORS, LECTURERS	Anita BÓDI		
	Dániel BADIK-SZABÓ		
	Peter KÁDÁR		
	Dr. Attila TALAMON PhD, Associate Professor	talamon.attila@ybl.uni-obuda.hu	Consultations: as on webpage
	Gergely SZAKÁCS	gregszakacs@gmail.com	Consultations: as on webpage
PRE-REQUIREMENT	Complex Design I, Community and Urban Planning		HOURS OF LECTURES (WEEKLY) 1 +2 hours
HOURS OF CLASSROOM	(TRAINING/LABORATORY TRAINING (WEEKLY)) 0 hours		FIELD WORK AND TRAINING(WEEKLY) 0 hours
ASSIGNMENT	Midterm assignment and exam		CREDITS 3 credits (ECTS)
AIM OF THE COURSE, BRIEF DESCRIPTION	<p>The objective is to get the students acquainted with legal and technical requirements of engineering specialists' contribution to architectural design and to prepare them for the practical side of it. There are lectures, professional visits, presentations and consultations in the program, related to the main fields of engineering services that contribute to architectural design. Students are expected to conduct their own piece of research, too, and to write a report on the information, practical procedures, calculations and professional guidelines gained throughout the session.</p> <p>The <i>project management modul</i> of the Related Disciplines of Design Course aims to provide practical knowledge on the management process of designing and constructing buildings. Combined with site visits the students will better understand the roles and motivations of the project participants, learn effective tools and methods used in the delivery of projects. The homework task assignment is related to the delivery aspects of the design task and will be presented at the end of the course.</p>		
RECOMMENDED LITERATURE	<ul style="list-style-type: none"> <li>• Chudley &amp;Greeno's Building construction Handbook</li> <li>• Francis D. K. Ching Building Construction Illustrated</li> <li>• Christian Schittich (ed.) (2008): Building Skins. BIRKHÄUSER EDITION DETAIL, Berlin</li> <li>• Ansgar and Benedikt Schulz (2016): Perfect Scale. BIRKHÄUSER EDITION DETAIL, Berlin</li> <li>• Christian Schittich (Ed.) (2006): Maisons individuelles. BIRKHÄUSER EDITION DETAIL, Berlin</li> <li>• Christian Schittich (Ed.) (2010): Small Structures. BIRKHÄUSER EDITION DETAIL, Berlin</li> </ul> <p>Detail magazin <a href="https://www.detail-online.com/">https://www.detail-online.com/</a></p> <ul style="list-style-type: none"> <li>• Project Management for Construction, Fundamental Concepts for Owners, Engineers, Architects and Builders by Chris Hendrickson (<a href="https://www.cmu.edu/cee/projects/PMbook/index.html">https://www.cmu.edu/cee/projects/PMbook/index.html</a>)</li> <li>• A guide to the project management body of knowledge (PMBOK guide) / Project Management Institute</li> <li>• The Practical Guide to Project Management, Christine Petersen, PMP &amp; bookboon.com</li> </ul>		
REQUIRED TECHNICAL APPLIANCES/ SOFTWARE	<p>The use of mobile phones is prohibited during the examinations.</p> <p>In the case of online education: Contact: Neptun, E-learning and E-mail. Education materials: According to E-learning Lessons: E-learning, Microsoft Teams, Zoom</p>		

SCHEDULE OF THE SEMESTER				
WEEK	LECTURE	LECTURER	FORM OF TRAINING	PROGRAM OF TRAINING
1. 13 Feb	1. Requirements of the course, description of the course schedule and the literature. Types of plans and rules of, drawing and other markings. Description and role of the main load-bearing building structures. . Structural systems, solid wall and frame systems. . Walls - requirements for walls, description of types of walls. . Frame and other building systems.	Anita BÓDI		Handing out the midterm assignment #1
2. 20 Feb	2. Statics	Dániel BADIK-SZABÓ		
3. 27 Feb	3. Statics	Dániel BADIK-SZABÓ		
4. 05 Marc	4. Statics	Dániel BADIK-SZABÓ		
5. 12 Marc	5. Electricity	Péter KÁDÁR		
6. 19 Marc	6. Building informatics	Péter KÁDÁR		
7. 26 Marc	plumbing systems water supply domestic hot water production, <b>sewerage</b> , rainwater drainage / rainwater recovery, fire protection systems (sprinkler)	Attila TALAMON		Complex consultation
02 Apr	Easter break			
8. 09 Apr	<b>plumbing systems</b> heating, gas supply, cooling / overheating, ventilation building automation, heat generators, heaters, heat exchangers Renewable energy sources, Solar Cells, Solar Collectors, Heat pumps, Biomass	Attila TALAMON		Complex consultation online test1
9. 16 Apr	1. Introduction: goal of the lecture, tasks and requirements. The Project Life Cycle, Participants, Roles 2. Project management, The Design and Construction Process	Gergely SZAKÁCS		Handing out the midterm assignment #2
10. 23 Apr	3. Labor, Material and Equipment Utilization, Construction Methodologies 4. Virtual site visit 5. Cost Estimation, Construction Pricing	Gergely SZAKÁCS		
11. 30 Apr	6. Contracting 7. Construction planning, scheduling	Gergely SZAKÁCS		online test2
12. 07 May	8. Cost control, monitoring, project reporting 9. Quality Control, Safety	Gergely SZAKÁCS		Submission: midterm assignment #2
13. 14 May	10. Handover process, Operation and Maintenance	Gergely SZAKÁCS		Midterm assignment Presentation

REQUIREMENTS FOR THE COMPLETION OF THE SEMESTER		
MID-SEMESTER TASKS AND TESTS		
Requirement	Description	Value (point, %, grade)
<b>PARTICIPATION AT LESSONS</b>	The practice lessons can maximum be missed up to three times (see § 46 ETVSZ)	-
<b>IN CASE OF ABSENCE FROM LESSONS AND EXAMINATIONS</b>	Absence is considered to be justified with a medical certificate presented.	-
<b>Short description of the TASKS</b>	#1 Detailed section drawing with structural appellations of a chosen multistory building, presenting the studied building structural elements, main electric system, and part of the plumbing systems.	25 points (min 15)
<b>Short description of the TASKS</b>	#2 To research and prepare construction technology, schedule and project management related questions related to the design task.	25 points (min 15)
<b>Pre-exam / exam</b>		50 points
<b>TOTAL</b>		100 points

SEMESTER CLOSING REQUIREMENTS					
<b>CONDITIONS FOR OBTAINING A SIGNATURE</b>	Get the minimum points from the mid term tasks.				
<b>SEMESTER GRADE</b>	0-49 Point	50-69	70-79	80-89	90-100
	1 - FAIL	2 - PASS	3 - SATISFACTORY	4 - GOOD	5 - EXCELLENT
<b>SIGNATURE RETAKE EXAM</b>	You can correct one of the two task in the beginning of the exam period if you failed it, in case you have successfully completed the other task, and you are at least 80% ready with the one that you failed.				
<b>CONDITIONS FOR OBTAINING AN OFFERED GRADE</b>	30 out of the 50 points has to be reached in the pre-exam and at least 80 points together with the semester tasks.				
	80-89 Point			90-100 Point	
	4 - GOOD			5 - EXCELLENT	
<b>CONDITIONS FOR ADMISSION TO THE EXAM</b>	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 50 points.				
<b>EXAM GRADE</b>	0-49 Point	50-69	70-79	80-89	90-100
	1 - FAIL	2 - PASS	3 - SATISFACTORY	4 - GOOD	5 - EXCELLENT