DRAWING AND DESCRIPTIVE GEOMETRY FOR ARCHITECTS II.

2022/23. 2. SEMESTER

BASIC DATA		
COURSE NAME	Rajz és ábrázoló II.	**Drawing and descriptive geometry for architects II.**
COURSE CODE(S)	YARRAA2BNF	
DEPARTMENT	Óbuda University, Ybl Miklós Faculty of Architecture, Institute of Architecture	
PROGRAMME, TRAINING	Architect BSc	full time
COURSE INSTRUCTOR (Instructor managing the course)	Dr. habil Bölcskei Attila PhD, Associate Professor	Bolcskei.Attila@ybl.uni-obuda.hu	Consultations:
INSTRUCTORS, LECTURERS	Dr. habil Bölcskei Attila PhD, Associate Professor	Bolcskei.Attila@ybl.uni-obuda.hu	Consultations:
	Gyulai Levente, Master teacher	gyulai.levente@ybl.uni-obuda.hu	Consultations:
PRE-REQUIREMENT	1 s Descriptive Geometry	
HOURS OF LECTURES (WEEKLY)	1 hours	
HOURS OF CLASSROOM TRAINING/ LABORATORY TRAINING (WEEKLY)	5 hours	
FIELD WORK AND TRAINING (WEEKLY)	0 hours	
ASSIGNMENT	Midterm assignment and exam	
CREDITS	10 credits (ECTS)	
AIM OF THE COURSE, BRIEF DESCRIPTION	This course provides the fundamentals of graphical representations and architectural drawings. It introduces the methods and techniques required for architectural representation, and the applications of visual language. Topics include freehand sketching (interiors and exteriors in one-, two- and three-vanishing point perspective systems), construction drawings (site plan, facade), form and space concepts (relationships between abstract design concepts and architectural space). Students develop a professional digital portfolio using their best work. Topics in Descriptive Geometry: Curves of second order. The image of a circle in Monge system, in axonometry and in perspective. Surfaces of revolution. Development of cones and cylinders. Plane section and intersection of surfaces of revolution. Applications in architecture. Shadow constructions of curved surfaces. GOAL OF THE SEMESTER: Further experience with curved objects in order to develop spatial ablity.	
RECOMMENDED LITERATURE	Dobó Márton, Molnár Csaba, Peity Attila, Répás Ferenc (1999). Reality Concept Drawing – In Architectural Drawing. TERC Kft. / Műszaki Kiadó, Budapest. Vlasta Szirovicza: Descriptive Geometry, CD	
REQUIRED TECHNICAL APPLIANCES/ SOFTWARE	Contact: Neptun, E-learning and E-mail. Education materials: According to E-learning	

SCHEDULE OF THE SEMESTER				
WEEK	LECTURE	LECTURER	FORM OF TRAINING	PROGRAM OF TRAINING
1	Overview of the known representation systems	Dr. Bölcskei	classroom training	Representation of different objects in different systems.
2	Curves of second order	Dr. Bölcskei	classroom training	Construction of an ellipse.
3	Surfaces of revolution (cylinder, cone, sphere, torus)	Dr. Bölcskei	classroom training	Circle in Monge projection I.
4	Representation of surfaces of revolution	Dr. Bölcskei	classroom training	Circle and surfaces in axonometry
5	Circle in perspective	Dr. Bölcskei	classroom training	Surfaces in perspective
6	Cutting a sphere	Dr. Bölcskei	classroom training	Cutting a cylinder and a cone
7	Line of intersection of curved surfaces I.	Dr. Bölcskei	classroom training	Line of intersection of curved surfaces II.
8	Rectification of a circle. Development of surfaces of a cone and a cylinder	Dr. Bölcskei	classroom training	Modelling: applications in architecture
9	Shadow construction of curved surfaces I.	Dr. Bölcskei	classroom training	Shadow construction of curved surfaces II.
10	Shadow construction of curved surfaces III.	Dr. Bölcskei	classroom training	Consultation on the individual task
11	Shadow construction of curved surfaces IV.	Dr. Bölcskei	classroom training	Consultation on the individual task
12	Shadow construction of curved surfaces V.	Dr. Bölcskei	classroom training	Consultation on the individual task
13	Consultation on the individual task	Dr. Bölcskei	classroom training	Test

REQUIREMENTS FOR THE COMPLETION OF THE SEMESTER

MID-SEMESTER TASKS AND TESTS (Descriptive Geometry part)

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.	-
Homeworks	Three times in a semester the students collect and hand in their in-class drawings and a connected homework. The evaluation is the following: 3 points for the homework, the in-class tasks score 7 points. The missing/false solutions must be repeated until they are complete/correct.	3 x 5 points
Model	A representative model of a surface of revolution.	5 points
Individual task	3 drawings of the same object (preferably a building) choosen by the student: in Monge, in axonometry and in perspective, with shadows. The solution must be consulted with the teacher as given in the programme above.	3 x 5 points
Test	At the end of the semester a test with 2 drawings must be completed by at least 50%.	15 points
TOTAL		50 points and the final score is the double of this (max. 100 p)

ÓBUDAI EGYETEM
YBL MIKLÓS ÉPÍTÉSTUDOMÁNYI KAR

WEEK	LECTURE	LECTURER	FORM OF TRAINING	PROGRAM OF TRAINING

SCHEDULE OF THE SEMESTER (DRAWING: 3 CLASSROOM TRAINING WEEKLY)

WEEK	LECTURE	LECTURER	FORM OF TRAINING	PROGRAM OF TRAINING
1			classroom training	CREATION AND DESIGN. (design methods and process)
2			classroom training	CREATION AND DESIGN. (additive and subtractive methods of creating spaces)
3			classroom training	CREATION AND DESIGN. (form and space transformation: positive-negative space, size, ratio, division)
4			classroom training	CREATION AND DESIGN. (composition analysis: balance, hierarchy of elements, contrast, statics-dynamics, emphasis, rhythm)
5			classroom training	ARCHITECTURAL DRAWING - INTERIOR. (one-vanishing point perspective systems)
6			classroom training	ARCHITECTURAL DRAWING - INTERIOR. (natural light and shadow effects, transparency as a design element)
7			classroom training	ARCHITECTURAL DRAWING - EXTERIOR. (two and three-vanishing point perspective systems)
8			classroom training	ARCHITECTURAL DRAWING - EXTERIOR. (spatial perception in architecture)
9			classroom training	ARCHITECTURAL DRAWING - ORTHOGRAPHIC PROJECTION. (site plan, facade)
10			classroom training	ARCHITECTURAL DRAWING - ORTHOGRAPHIC PROJECTION. (architectural presentation: trends, styles, techniques)
11			classroom training	PORTFOLIO (photo editing technics, typography)
12			classroom training	PORTFOLIO (visual presentation design)
13			classroom training	Final consultation. Submission of the portfolio.

ÓBUDAI EGYETEM
YBL MIKLÓS ÉPÍTÉSTUDOMÁNYI KAR

REQUIREMENTS FOR THE COMPLETION OF THE SEMESTER (DRAWING)

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.	-
TASK 1	3D abstract composition -subtractive methods of creating spaces (sketches - mixed media)	15 points
TASK 2	3D abstract composition -subtractive methods of creating spaces (concept model)	15 points
TASK 3	Interior (sketches - mixed media)	20 points
TASK 4	Exterior (sketches - mixed media)	20 points
TASK 5	site plan or facade (sketches - mixed media)	20 points
PORTFOLIO	visual presentation (selected works of the semester)	10 points
Submission Requirements	**Task 1-5:** File type: jpg, maximum 5Mb/task, resolution: 300dpi **Portfolio:** File type: jpg, maximum 20Mb, resolution: 300dpi, format: horizontal layout, 1920x1080px	
Pre-exam / exam		-
TOTAL		100 points

SEMESTER CLOSING REQUIREMENTS				
CONDITIONS FOR OBTAINING A SIGNATURE	- Three (3) or less absences. - All term work and portfolio must be completed and submitted by the date shown in the schedule section of the Syllabus.			
SEMESTER GRADE	Drawing and descriptive geometry scores will be added together to get your overall score.			
	0-119 point	120-139 point	140-159 point	160-179 point	180-200 point
	1 - FAIL	2 - PASS	3 - SATISFACTORY	4 - GOOD	5 - EXCELLENT
CONDITIONS FOR ADMISSION TO THE EXAM				
EXAM GRADE				
	0-119 point	120-139 point	140-159 point	160-179 point	180-200 point
	1 - FAIL	2 - PASS	3 - SATISFACTORY	4 - GOOD	5 - EXCELLENT

ÓBUDAI EGYETEM
YBL MIKLÓS ÉPÍTÉSTUDOMÁNYI KAR