



COURSE INFORMATION FORM

Course Name	Course Code
CONSTRUCTION AND BUILDING TECHNOLOGY	151412206

Semester	Number of Course Hours per Week		ECTS
	Theory	Practice	
2	2	0	3

Course Category (Credit)				
Basic Sciences	Engineering Sciences	Design	General Education	Social
	3			

Course Language	Course Level	Course Type
Turkish	Undergraduate	Compulsory

Prerequisite(s) if any	
Objectives of the Course	General Introduction of All Typical Building Elements Used on Earth (comparatively). Introduction of Building Elements Used in Turkey, Their Applications, Teaching Construction Technologies with Numerical Examples. General Project Organization Giving the students the principles and the issues that need to be taken into consideration. Concrete, reinforced concrete, carrier system, masonry, block element preferences, usage, applications.
Short Course Content	Introduction of the structure, Fortification works, foundation types and calculation methods, Masonry wall types (stone, brick, light block concrete, reinforced concrete, etc.), calculation methods, project design and materials, Chimneys (fire, ventilation, garbage, plumbing), Dilatation joints (settlement, vibration, movement), Insulation (against water, moisture, heat and sound), Stairs: calculation types, balancing, types and general rules, Ramps elevators, Roofs, roof types, roof arrangement in the plan, Roof waterproofing works.

Learning Outcomes of the Course		Contributed PO(s)	Teaching Methods *	Measuring Methods **
1	To be able to provide general introduction of building elements in Civil Engineering projects.	PO1, PO2, PO9	1,5	A
2	To be able to introduce the building elements used in Turkey	PO1, PO2, PO9	1,5	A
3	To be able to define fortification works, foundation types and calculation methods, masonry wall types	PO1, PO2, PO5	1,5,6	A
4	To be able to identify chimneys (fire, ventilation, garbage, installation), dilatation joints (settlement, vibration, movement)	PO1, PO2, PO5	1,5,6	A
5	To be able to define insulations (against water, moisture, heat and sound)	PO1, PO2	1,5	A
6	Ability to define ladders, calculation methods, balancing, types and general rules	PO1, PO2, PO5	1,5,6	A
7	To have information about roofs, roof types, roof arrangement in the plan and tin work.	PO1, PO2, PO5	1,5,6	A
8	Having knowledge about ramps and elevators	PO1, PO2	1,5	A

***Teaching Methods** 1:Expression, 2:Discussion, 3:Experiment, 4:Simulation, 5:Question-Answer, 6:Tutorial, 7:Observation, 8:Case Study, 9:Technical Visit, 10:Trouble/Problem Solving, 11:Individual Work, 12:Team/Group Work, 13:Brain Storm, 14:Project Design / Management, 15:Report Preparation and/or Presentation

****Measuring Methods** A:Exam, B:Quiz, C:Oral Exam, D:Homework, E:Report, F:Article Examination, G:Presentation, I:Experimental Skill, J:Project Observation, K:Class Attendance; L:Jury Exam

Main Textbook	“Lecture Notes” of the course are available. All books and lecture notes under the name of Building Elements, Building Information, Building, Construction Works, Construction Technologies are the basic resources.
Supporting References	All other construction, building knowledge and elements, inspection, organization and project controls, applied books, lecture notes, directives, regulations, statutes, specifications, printed and written legislation regarding construction works and building technicians are valid.
Necessary Course Material	Laptop, Data show (Data projection devices), Fixed or movable white screen, blackboard for written applications.

Course Schedule	
1	Application of the building plan to the ground (application) and use of rope scaffolding
2	Excavation works (excavation), soil types, excavation types and recognition
3	Fortification works (shoring – sheet pile – cofferdam)
4	Foundations (types, dimensions, calculations, bearing capacity)
5	Foundations (types, dimensions, calculations, bearing capacity)
6	Masonry walls (features, types, manufacturing, technologies, calculations)
7	Masonry walls (features, types, manufacturing, technologies, calculations)
8	Mid-Term Exam
9	Chimneys (fire, ventilation, garbage and plumbing chimneys, calculations)
10	Dilatation joints (settlement – expansion – vibration – movement)
11	Insulation works (insulation against water, moisture, heat, sound and fire)
12	Stairs (terms, types, balancing, calculations)
13	Roofs (shapes, plan arrangements, elements, types, materials)
14	Roof waterproofing works (streams, rain gutters and pipes, wall-chimney bottoms)
15	Ramps and general - basic introduction, elevators (basic and general information, types, features)
16,17	Final Exam

Calculation of Course Workload			
Activities	Number	Time (Hour)	Total Workload (Hour)
Course Time (number of course hours per week)	14	2	28
Classroom Studying Time (review, reinforcing, prestudy,....)	14	2	28
Homework	1	0	0
Quiz Exam	1	0	0
Studying for Quiz Exam	1	0	0
Oral exam	1	0	0
Studying for Oral Exam	1	0	0
Report (Preparation and presentation time included)	1	0	0
Project (Preparation and presentation time included)	1	0	0
Presentation (Preparation time included)	1	0	0
Mid-Term Exam	1	2	2
Studying for Mid-Term Exam	1	15	15
Final Exam	1	2	2
Studying for Final Exam	1	10	10
Total workload			85
Total workload / 30			2,83
Course ECTS Credit			3

Evaluation	
Activity Type	%
Mid-term	50
Quiz	
Homework	
Bir öge seçin.	
Bir öge seçin.	
Final Exam	50
Total	100

RELATIONSHIP BETWEEN THE COURSE LEARNING OUTCOMES AND THE PROGRAM OUTCOMES (PO) (5: Very high, 4: High, 3: Middle, 2: Low, 1: Very low)		
NO	PROGRAM OUTCOME	Contribution
1	PO-1: Adequate knowledge of mathematics, science and basic engineering; Ability to apply theoretical and applied knowledge in these fields to model and solve engineering problems	4
2	PO-2: Skills in identifying, defining, formulating, and solving complex engineering problems in civil engineering and related fields by selecting and applying appropriate analysis and	4
3	PO-3: The ability to design a complex system, device or product in line with a determined goal, under realistic constraints and conditions, by applying modern design methods.	2
4	PO-4: Ability to develop, select and use modern techniques and tools required for Civil Engineering applications and to effectively benefit from information technologies.	2
5	PO-5: Ability to design experiments, conduct experiments, collect data, analyze and interpret results for the study of Civil Engineering problems.	1
6	PO-6: Ability to do intradisciplinary and interdisciplinary team work	4
7	PO-7: Ability to communicate effectively in Turkish verbally and in writing and the ability to use/improve foreign language knowledge.	2
8	PO-8: Awareness of the necessity of lifelong learning; the ability to access information, follow developments in science and technology and constantly renew oneself	3
9	PO-9: Awareness of professional and ethical responsibility	4
10	PO-10: Knowledge of project management and business practices such as risk management and change management; awareness about entrepreneurship, innovation and sustainable	2
11	PO-11: Information about the effects of engineering practices on health, environment and safety at universal and societal dimensions; Awareness of national and international legal regulations and standards and the legal consequences of engineering solutions.	2

LECTUTER(S)				
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Signature(s)				

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