MASTER BUILDING DESIGN PRINCIPLES

1	Course Title:	MASTER BUILDING DESIGN PRINCIPLES
2	Course Code:	INS4034
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	8
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	1.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. ADEM DOĞANGÜN
15	Course Lecturers:	Prof. Dr. Adem DOĞANGÜN
16	Contact information of the Course Coordinator:	adogangun@uludag.edu.tr
17	Website:	http://insaat.uludag.edu.tr/
18	Objective of the Course:	To enable them to interpret the behavior of masonry structures by calculating and designing them.
19	Contribution of the Course to Professional Development:	To gain skills in the design of masonry structures
20	Learning Outcomes:	
	1	Be able to describe the behavior of different types masonry structures
	2	Be able to understand fundamental calculations
	3	Be able to know basics codes and specification for masonry structures
	4	Be able to know practice problems and solutions encountered in application
	5	Be able to check the results obtained from computer programs frequently used in applications
	6	Be able to differentiate which analyses should be carried out for each reinforced concrete elements
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21	Course Content:	

Course Content:

Week	Theoretical	Practice
1	History, application fields of reinforced concrete structures, advantages and disadvantages	
2	Materials in masonry structures,	
3	Types of masonry structures	

4	Simple masonry structures	
5	reinforced masonry structures.	
6	Earthquake resistant masonry design principles	Problem solving
7	Codes for masonry	
8	Codes for masonry	Problem solving
9	Earthquake design methods of masonry structures.	
10	Brick masonry structures	Problem solving
11	Earthquake calculations of masonry structures selected as examples.	
12	Earthquake calculations of masonry structures selected as examples.	Problem solving
13	Damages for masonry structures	Problem solving
14	Masonry structure strengthening	

22	Textbooks, References and/or Other Materials:	1. Bayülke, N, Depreme Dayanıklı Betonarme ve Yığma Yapı Tasarımı, İMO İzmir, 1993. 2. Paulay, T., Priestley; M.J.N., Seismic design of reinforced concrete and masonry buildings, John Wiley & Sons, New York 1990.
23	Assesment	

TERM LEARNING ACTIVITIES | NUMBE | WEIGHT

Activites	Number	Duration (hour)	Total Work Load (hour)
Quiz	0	0.00	
Theoretical	14	2.00	28.00
Home work-project	0	0.00	
Practicals/Labs	14	1.00	14.00
Final Exam	1	60.00	
Self study and preperation	14	4.00	56.00
Total	2	100.00	
Homeworks	1	14.00	14.00
Contribution of Term (Year) Learning Activities to	40.00		
Projects / Success Grade	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	2.00	2.00
Total	100.00		
Others	0	0.00	0.00
Measurement and Evaluation Techniques Used in the Midterm and Final exam			
Final Exams / Course	1	4.00	4.00
Total Work Load			118.00
Total work load/ 30 hr			3.93
ECTS Credit of the Course			4.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS	

	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK2	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	0	0	5	0	0	4	0	0	0	0	0
ÖK4	0	2	0	2	0	0	0	0	0	0	4	0	0	0	0	0

ÖK5	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0

LO: Learning Objectives   PQ: Program Qualifications

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High