

REINFORCED CONCRETE BRIDGE DESIGN

1	Course Title:	REINFORCED CONCRETE BRIDGE DESIGN	
2	Course Code:	INS5240	
3	Type of Course:	Optional	
4	Level of Course:	Second Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	7.50	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
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:	Doç.Dr. Hakan Tacettin Türker	
16	Contact information of the Course Coordinator:	Prof.Dr. Adem DOĞANGÜN	
17	Website:		
18	Objective of the Course:	To provide the necessary skills for the calculation and design of bridges	
19	Contribution of the Course to Professional Development:	To be able to calculate and design bridges	
20	Learning Outcomes:		
		1	Learning the vertical load carrying mechanisms of different bridge structural systems
		2	Learning the lateral load carrying mechanisms of different bridge structural systems
		3	Being able to identify structural failures
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	General knowledge and definitions. Classification of bridges:		
2	Slab bridges, slab-beam (simple, break-front, Gerber, Truss, grate) bridges		
3	frame bridges		
4	arc (with three and two joints, bowstring and fixed) bridges		

5	arc (with three and two joints, bowstring and fixed) bridges	
6	Loads according to T.C. Highway specification.	
7	Reinforced concrete specifications and basic principle	
8	bridge supports.	
9	Joints.	
10	Middle and end foots.	
11	bridge projects.	
12	bridge projects.	
13	bridge projects.	
14	bridge projects.	

22	Textbooks, References and/or Other Materials:	Guide Specifications for Seismic Design of Highway Bridges,AASHTO,2001. Celasun H.,Betonarme Köprüler,Çağlayan Yay.,1980. Ekiz İ., Köprü Problemleri, Çağlayan Yay.,1976. Rowe R.E.,Concrete Bridge Design,Elsevier Publ.Comp.,Amsterdam,1982.
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23	Assesment
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	40.00

Activites			Number	Duration (hour)	Total Work Load (hour)
Theoretical			14	3.00	42.00
Total	2		100.00		
Practicals/Labs			0	0.00	0.00
Self-study and preparation			14	13.00	182.00
Homeworks			0	0.00	0.00
Projects			0	0.00	0.00
Total			100.00		
Field Studies			0	0.00	0.00
Oral exams			1	3.00	3.00
Others			0	0.00	0.00
Final Exams			1	3.00	3.00
Total Work Load					230.00
Total work load/ 30 hr					7.67
ECTS Credit of the Course					7.50

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	3	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	5	1	0	0	2	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	1	0	0	0	0	0	4	2	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																

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