REINFORced CONCRETE

1	Course Title:	REINFORCED CONCRETE
2	Course Code:	BSM3525-Z
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	5
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	1.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. ERCAN ŞİMŞEK
15	Course Lecturers:	-
16	Contact information of the Course Coordinator:	e-posta : esimsek@uludag.edu.tr Telefon: 0 224 2941622 Adres: Uludağ Üniversitesi, Ziraat Fakültesi, Biyosistem Mühendisliği Bölümü, Görükle Kampusu, 16059, Nilüfer/BURSA
17	Website:	
18	Objective of the Course:	Students is taught the principles of desing of reinforced concrete material as a structural compenent in agricultural structure design
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

		1	Understand the basic principles and methods in the design of reinforced concrete structures
		2	Design of a component of reinforced concrete to provide economic and durability
		3	Know the application fields of reinforced concrete in agricultural structural component
		4	Design in reinforced concrete structural components in agricultural structural components
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21	Course Content:	

Course Content:	

Week	Theoretical	Practice
1	Introduction, course presentation and to inform on the method to be followed during the semester	Introduction of basic concepts of concrete, steel and reinforced concrete

2	Physical and mechanical properties of concrete and concrete steel, as a building material	Example problems
3	Basic principles and methods used in the design of reinforced concrete structures	Example solution on load coefficients and coefficients of the material
4	Materials under the influence of axial force	Behavior under load and carrying capacity of columns with stirrup and wound
5	Bearing capacity and dimensioning of short column with stirrup	Example problems
6	Basic principles and assumptions in determining the bending strength of reinforced concrete sections	Concrete elements under influence of pure bending
7	Bearing capacity of reinforced rectangular sections with single fitting	Example solution on bearing capacity of reinforced rectangular sections with single fitting
8	Sizing of reinforced rectangular sections with single fitting (Cross-Section account)	Example problems
9	Repetition of course	Evaluation of the examination
10	Sizing and bearing capacity of reinforced rectangular sections with double fittings	Example problems
11	Bearing capacity of beams with T-section, triangular and trapezoidal cross-section	Example problems
12	Calculation of flexural fittings of reinforced concrete beams	Example problems
13	Elements effected by the combined bending	Example problems
14	Elements under the influence of shear force	Example problems

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	14	2.00	28.00
Self study and preporation	12	1.00	12.00
Homeworks	2	5.00	10.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams		10.00	10.00
Others	1	4.00	4.00
Final Exams	1	12.00	12.00
Total Work Load			100.00
Contribution of Term (Year) Learning Activities to	40.00		3.00
ECTS Credit of the Course			3.00

Çelep, Z. ve N. Kumbasar, 1998. Betonarme Yapılar. Sema Matbaacılık. İstanbul.

Dağıtım. İstanbul.

22 Assessment

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm exams	0	0.00
Final Exams	1	60 100

Contribution of Final Exam to Success Grade	60.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	

24	**ECTS / WORK LOAD TABLE**

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	4	3	4	2	3	3	2	3	2	2	3	0	0	0	0	0
ÖK2	3	2	4	3	4	4	2	2	2	2	2	0	0	0	0	0

ÖK3	2	2	4	2	2	2	1	2	3	2	1	0	0	0	0	0
ÖK4	2	3	3	2	4	3	1	3	2	2	3	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