

Course Plan

Course Instructors	Prof. Dr. Ali Hameed Aziz						
E-mail	alihaziz@uomustansiriyah.edu.iq						
Title	Reinforced Concrete Design-II						
Course Coordinator	Prof. Dr. Ali Hameed Aziz						
Course Objective	Training the students to analysis and design of reinforced concrete members by different methods and preparing them to apply the basic theories combining with their practical solutions.						
Course Description	The course describes the analysis and design of two way slabs by different methods according to ACI-318, analysis of prestressed concrete beams and analysis with design of reinforced concrete bridges are involved in this course.						
Textbook	Design of Concrete Structures, A.H. Nilson et. al., 13 th Ed., McGraw Hill, 2004.						
Course Assessments	Term Tests		Laboratory	Quizzes		Project	Final Exam
	1 st	2 nd	-	1 st	2 nd	-	(60%)
	15%	15%		5%	5%		
General Notes	Academic year 2018-2019 and Time Division 3hrs/ week.						
Lecture Place	Classrooms of Civil Engineering Department Sunday-Room (12) and Tuesday-Room (10)						
Lecture Time	Sunday- (8.30am-10.30am) Tuesday- (9.30-10.30am)						

Course Weekly Outline

Week	Date	Topics Covered	Notes
1	19/10/2014	Type of slab systems	
2	26/10/2014	Direct Design Method	
3	2/11/2014	Limitation of D.D.M.	
4	9/11/2014	Minimum slab thickness for deflection control	
5	16/11/2014	Total factored static moment	
6	23/11/2014	Longitudinal distribution of moments	
7	30/11/2014	Transverse distribution of longitudinal moments	
8	7/12/2014	Shear in two way systems with beams	
9	14/12/2014	Shear in two way system without beams	
10	21/12/2014	Effect of openings on shear strength	
11	28/12/2014	Yield line theory of slabs	
12	4/1/2015	Basic concepts	
13	11/1/2015	Yield line by virtual work method	
14	18/1/2015	Yield line analysis of one way slab	
15	25/1/2015	Yield line analysis of two way slab	

HALF YEAR BREAK			
16	15/2/2015	Equivalent Frame Method E.F.M.	
17	22/2/2015	General consideration	
18	1/3/2015	Stiffness of equivalent frame members	
19	8/3/2015	Flexural stiffness of columns	
20	15/3/2015	Slab beam stiffness	
21	22/3/2015	Arrangement of live loads	
22	29/3/2015	Prestressed concrete beams	
23	5/4/2015	Advantages of using prestressed concrete members	
24	12/4/2015	Prestressing systems	
25	19/4/2015	Prestressing materials	
26	26/4/2015	Prestressed concrete stresses with permissible limits	
27	3/5/2015	Losses of prestress	
28	10/5/2015	Design of concrete bridge	
29	17/5/2015	Analysis and design of deck slab bridges	
30	24/5/2015	Analysis and design of deck girders bridges	

Instructor Signature: *Prof. Dr. Ali H. Aziz*

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