

Republic of Iraq
The Ministry Of Higher Education
& Scientific Research

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

University: Diyala
College: Engineering
Department: Civil
Stage: Fourth year
Lecturer name: Qasim Adnan Mahdi
Qualification: PhD in Geotechnical Eng
Place of work: Civil Department



Form of Teaching Plan for a Course

Course Instructor	Qasim Adnan Mahdi				
E-mail	ms_aljanaby@yahoo.com				
Title	Irrigation Engineering				
Course Coordinator	Two hours \ week				
Course Objective	The objective of this course is to introduce students to principle of irrigation engineering and make the designs of irrigation and solve the problem to drain soils.				
Course Description	Introduction of irrigation engineering, Soil and water relationship, Measurement of soil moisture, Infiltration, Water requirement and consumptive use, Water duty and irrigation scheduling, Irrigation efficiencies, Design of irrigation channel, Method of surface irrigation, Drainage : definition and concepts, Drainage field investigation and drainage layout				
Textbook					
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	30 %	-	10 %	-	60 %
General Notes					

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Course Weekly Outline

Week	Date	Topes Covered	Lab. Experiment Assignments	Notes
1	21/09/2014	Introduction and Necessity of Irrigation.		
2	28/09/2014	Irrigation Design as an Engineering practice		
3	5/10/2104	Water Resources and Soil Moisture		
4	12/10/2104	Measurement of soil moisture.		
5	19/10/2104	Soil – Water Properties		
6	26/10/2104	Irrigation Efficiencies		
7	2/11/2104	Kinds of Irrigation Efficiencies		
8	9/11/2104	Water duty and irrigation scheduling.		
9	16/11/2104	Important of water duty		
10	23/11/2104	Water requirement and consumptive use		
11	31/12/2104	Irrigation Interval		
12	7/12/2104	Schedule of Irrigation		
13	14/12/2104	Constant irrigation interval		
14	21/12/2104	Relation between Discharge, Depth of water, Time and Area		
15	28/12/2104	Infiltration.		
16	4/01/2015	Method of surface irrigation.		
Half – year break				
17	15/02/2015	Irrigation and Drainage Networks		
18	22/02/2015	Alignment of Canals		
19	1/03/2015	Discharge of Drainage Networks		
20	8/03/2015	Design of irrigation channel (lined and unlined).		
21	15/03/2015	Design of canals in alluvial soils		
22	22/03/2015	Lining of irrigation canals		
23	29/03/2015	Design of sprinkler systems		
24	5/04/2015	Pumping Plant Design		
25	12/04/2015	Drip Irrigation System		
26	19/04/2015	Trickle System Design		
27	26/04/2015	Layout of the trickle irrigation system		
28	3/05/2015	Flow of water in saturated soil (Darcy low).		
29	10/05/2015	Drainage field investigation and drainage layout.		
30	17/05/2015	Type of drains : open , covered , interceptor and vertical.		
31	24/05/2015	Drain spacing and drain channel design.		
32	1/06/2015	Design of Main Line		

Instructor Signature:

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