

Republic of Iraq

The Ministry of Higher
Education

& Scientific Research

بسم الله الرحمن الرحيم



University: Diyala
College: Agriculture
Department: Horticulture and
landscaping
Stage: Third
Lecturer name: Mohammed Ali Abood
Scientific title: professor
Qualification: Ph.D
Place of work: College of Agriculture

Flow up of implementation celli pass play

Course Instructor	Mohammed Ali Abood				
E-mail	Mohammed.Ali.Abood@uodiyala.edu.iq				
Title	Irrigation and Drainage				
Course Coordinator	First semester (fall)				
Course Objective	Science irrigation looking in irrigation water sources and methods to control it, exploit and delivery of agricultural fields and includes planning, design and implementation of irrigation facilities, transmission and distribution of irrigation water and to study ways to add them and calculate the water requirement of the plant through the study of water relationship, soil and climate in addition to the study of problems related to the addition of water problems to salinity and drainage and reclamation of soils.				
Course Description	Irrigation material includes teaching students how to calculate the channels discharge, whether or not lined or exposed as well as the water needs of the plant as well as the expense of transporting and distributing water to agricultural fields without any water losses as well as the expense of the ability of the pumps that transfer water from the rivers and down to the agricultural fields.				
Textbook	1-Irrigation, Basics and applications, by Dr. Nabil Ibrahim Al-Tayef and Dr. Issam Khudair Hamza Al-Hadithi, 1988, Ministry of Higher Education and Scientific Research - University of Baghdad 2- Irrigation and Drainage, authored by Dr. Laith Khalil Ismail, 2000, Ministry of Higher Education and Scientific Research - University of Mosul 3- Design and Management of Field Irrigation Systems, written by Dr. Samir Mohamed Ismail, 2002, Faculty of Agriculture, Alexandria University. 4- Modern irrigation technologies and other topics in the water issue, authored by Dr. Issam Khudair Al-Hadith, Dr. Ahmed Madlul Al-Kubaisi, and Dr. Yas Khudair Hamza Al-Hadith, 2010, Ministry of Higher Education and Scientific Research - University of Anbar				
Course Assessments	Theoretical semester tests %	Practical semester tests %	Quizzes %	Final practical test %	Final Exam %
	(25%)	(10%)	(5%)	20%	(40%)
General Notes	Final grade 100%				

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the week	the date	Topics Covered	Practical Part	Notes
1		A historical overview of irrigation in Iraq	Mathematical relationships for soil components and the equivalent depth of soil water	
2		Methods for measuring soil moisture	Methods for measuring soil moisture	
3		Irrigation water quality	Measuring field capacity and permanent wilting point	
4		Soil properties related to irrigation	Tip measurement	
5		Tip water into the soil	Infiltration measurement	
6		The most important mathematical relationships for irrigation calculations	Water consumption	
7		Irrigation water measurements	Watching explanations about irrigation equipment and the most important	
8		Irrigation water transportation and distribution	Methods for measuring irrigation water discharge	
9		Irrigation efficiencies	Irrigation canal design	
10		Water needs, first part	Irrigation methods	
11		Water needs, part two	Drip irrigation network design	
12		Irrigation methods The Christian	Measuring irrigation costs	
13		Drip irrigation	The most important types of pumps	
14		Sprinkler irrigation	Some terms that express the capacity	
15		Drainage	Visit the agricultural research station to view irrigation methods	

م. الجليل

Teacher's signature
Prof. Dr. Mohammed Ali Abood
15/1/2025

ر. خالد

Dean's signature
Prof. Dr. Raaed Ibrahim Khalil
15/1/2025