

Republic of Iraq

The Ministry of Higher  
Education

& Scientific Research

بسم الله الرحمن الرحيم



University: Diyala  
College: Agriculture  
Department: Field Crop Science  
Stage: Second  
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	<a href="mailto:Mohammed.Ali.Abood@uodiyala.edu.iq">Mohammed.Ali.Abood@uodiyala.edu.iq</a>				
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
١		A historical overview of irrigation in Iraq	Mathematical relationships for soil	
٢		Methods for measuring soil moisture	Methods for measuring soil moisture	
٣		Irrigation water quality	Measuring field capacity and permanent	
٤		Soil properties related to irrigation	Tip measurement	
٥		Tip water into the soil	Infiltration measurement	
6		The most important mathematical relationships for irrigation calculations	Water consumption	
٧		Irrigation water measurements	Watching explanations about irrigation	
٨		Irrigation water transportation and	Methods for measuring irrigation water	
٩		Irrigation efficiencies	Irrigation canal design	
١٠		Water needs, first part	Irrigation methods	
١١		Water needs, part two	Drip irrigation network design	
١٢		Irrigation methods The Christian	Measuring irrigation costs	
١٣		Drip irrigation	The most important types of pumps	
١٤		Sprinkler irrigation	Some terms that express the capacity	
١٥		Drainage	Visit the agricultural research station	

محمد الجليل

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

رعد

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