

20CE4702C -IRRIGATION MANAGEMENT

Offering Branches	CE		
Course Category:	Professional Elective	Credits:	3
Course Type:	Theory	Lecture-Tutorial-Practical:	3-0-0
Prerequisites:	20CE3401-Environmental engineering 20CE3405-Water resources engineering 20MC1301-Environmental science	Continuous Evaluation:	30
		Semester End Evaluation:	70
		Total Marks:	100

Course Outcomes

Upon successful completion of the course, the student will be able to:

CO1	Understand and analyze various approaches in irrigation management	K4
CO2	Understand and analyze the capability of irrigable soils and management	K4
CO3	Apply Societal approach to irrigation management	K3
CO4	Understand the provisions of irrigation and conflict resolution	K2
CO5	Understand the basic concepts of integrated water management	K2

Contribution of Course Outcomes towards achievement of Program Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2				3	3	3						3
CO2	2	2				3	3	3						3
CO3	2	2				2	2	2						2
CO4	2	2				2	2	2						2
CO5	2	2				2	2	2						2
Avg.	2	2				2	2	2						2

1- Low

2-Medium

3-High

Course Content

UNIT-1	Introduction: Need for proper management of land and water resources. Planning of irrigation projects – Inadequacies in present approaches in canal irrigation management – command area development programmes.	CO1
UNIT-2	Soil Management: Classification of irrigable soils – soils-plant-water relationships – soil management. Water logging and salinity – water quality for irrigation – Reclamation of salt affected soils	CO2
UNIT-3	Irrigation Management: Irrigation management – Irrigation Management Matrix – Society and irrigation –perceptions of various stake holders on irrigation system performance. Livelihood and Production Thinking Philosophy – the different approaches. Macro and precision irrigation.	CO3
UNIT-4	Participatory irrigation management – Farmer’s management of irrigation system acts - conflict resolution.	CO4
UNIT-5	Legal aspects in water sharing and management – PC-CP - case studies Introduction to Integrated Water Resources Management (IWRM).	CO5

Learning Resources

Text Books	<ol style="list-style-type: none"> 1. Irrigation Theory and practice by A. M. MICHAEL Vicas publishing house pvt ltd 2. Irrigation Water Management: Principles and Practce by Dilip Kumar
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	Majumdar PHI Learning pvt.Ltd
Reference Books	1. Chambers R, Canal Management, Oxford IBH. 2. VVN Murthy, Land and Water Management Engineering, Kalyani Publishers.
e- Resources & other digital material	1. https://nptel.ac.in/courses/105/102/105102159/ 2. https://nptel.ac.in/courses/126/105/126105010/