



LESSON PLAN

COURSE TITLE: Hydrology	COURSE CODE: CET301	CREDIT HOURS: 01	MINIMUM CONTACT HOURS: 16
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COURSE INSTRUCTOR: Prof. Dr. Ashfaque A. Memon / Hafiz Usama Imad

Batch: 22BSCET	Semester: 5th	Semester Starting Date: 09-12-2024	Semester Suspension Date: 18-04-2025
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COURSE LEARNING OUTCOMES:


CLO	Description	Taxonomy Level	PLO
1	ANALYZE the occurrence, movement and distribution of water in the atmosphere, on and below the ground surface	C4	4
2	APPLY the principles of groundwater movement for lifting of sub-surface water	C3	3

Contents	CLO No.	Marks Assigned	Delivery Methods	Assessment Methods (Marks)
<p>➤ Introduction Hydrology, Hydrologic cycle, Hydrologic equation.</p> <p>➤ Hydrologic Processes and their Computation Wind, Temperature, Relative humidity, Solar radiation, Precipitation, Evaporation, Transpiration, Evapotranspiration, Runoff and its measurement/estimation, Data networks, Telemetry system and Remote sensing, Analysis and application of hydrograph, Unit hydrograph.</p> <p>➤ Floods- Estimation, Routing and Control Size of floods, Estimation of peak flood, Flood frequency studies, Introduction to Reservoir routing and Channel routing, Methods of flood control, Flood forecasting and warning.</p> <p>No of Lectures: 11</p>	1	34	<ul style="list-style-type: none"> • Class Lectures • Discussion • Example practice 	<ul style="list-style-type: none"> • Class Test-I (4) • Assignment-I (5) • Mid semester Exam (15) • Final Exam (10)
<p>➤ Groundwater, Well Hydraulics and Tube Wells Basic terminology, Types of aquifers, Yield of a well, Well losses, Specific capacity of well, Interference among wells. Types and Parts of tube well, Tube well construction, Design of tube well for irrigation purposes, Comparison of Tube well irrigation and Canal irrigation.</p> <p>No of Lectures: 05</p>	2	16	<ul style="list-style-type: none"> • Class Lectures • Discussion • Example practice 	<ul style="list-style-type: none"> • Class test-II (3) • Assignment-I (3) • Final Exam (10)

ASSESSMENT DETAILS

S. No.	Assessment Activities	Marks	Activities		CLO(s) to be assessed
1	Class Test/Assignment/Project Design/Presentation/Quiz/Field Report	30	Class tests	2	1,2
			Assignments	2	1,2
2	Mid Semester Exam	30	1		1
3	Final Semester Exam	40	1		1, 2

Prepared by: **Dr. Ashfaq A. Memon**



Signature:

Dated: 02-12-2024

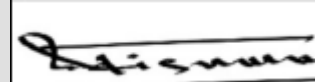
Reviewed by: **Curriculum Review Committee**



Signature:

Dated: 20-12-2024

Approved by: **Chairman, CED**



Signature:

Dated: 20-12-2024