



TENTATIVE TEACHING PLAN

Dec.01.2001

DEPARTMENT/INSTITUTE/DIRECTORATE: CIVIL ENGINEERING

Department: Civil Engineering

Name of Teacher: Engr. Hafiz Usama Imad

Subject: Environmental Engineering I

Course Code: CE351

Batch: 20CE (A+C)

 Year: 3rd

Semester:

 6th

Semester Starting Date: 03-07-2023

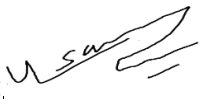
Semester Suspension Date: 20-10-2023

Course Learning Outcomes (CLOs): Upon successful completion of the course, the student will be able to:

CLO No.	Description	Taxonomy Level	Linking to PLOs
1	DESCRIBE the characteristics of potable water used in daily life, environmental legislations and management.	C2	1
2	EVALUATE the water treatment plant unit and water distribution networks.	C5	4

S. #	TOPICS	CLO	No. of Lecture Required
Introduction to Environmental Engineering			
1.	Introduction of the subject, importance in civil Engineering	1	1
Environmental Legislation and Management			
2.	Environmental issues in urban and rural areas, sustainable environment, role of agencies to prevent degradation	1	1
3.	National Environmental Quality Standards (NEQS).and Environmental Impact Assessment (EIA).	1	2
Water Quality			
4.	Hydrologic Cycle and Sampling methods	1	1
5.	Water characteristics	1	1
6.	Water quality analysis and monitoring	1	1
Water Supply Engineering:			
7.	Water Demand and its types	1	1
8.	Estimation water demand	1	1
9.	Problems on water demand	1	1
10.	Factors affecting water use	1	1
11.	Design period and factors affecting the design period	1	2
12.	Population forecast and its methods	1	2
13.	Water sources	1	1
Water Treatment Unit Processes / Operations:			
14.	Water treatment methods	2	1
15.	Screening	2	1
16.	Sedimentation, Coagulation and filtration	2	1
17.	Disinfection and water softening	2	1
18.	Special water Treatment methods	2	1

Water Distribution			
19.	Water supply systems and distribution methods	2	1
20.	Requirements of a good distribution system	2	1
Water Supply Projects and Water Collection:			
21.	Planning of water supply projects and its importance and necessity	2	1
22.	Data to be collected, data analysis, project drawing and estimate	2	1
23.	Water collection methods	2	1
24.	Intake and its types	2	1
25.	Factors affecting intakes and design of intakes	2	1
Water Conveyance			
26.	Conduit and its types	2	1
27.	Pumps and its types	2	1
28.	Design of pumping stations	2	1
Design of Water Treatment Plant			
29.	Design of various units of treatment plant	2	1
	TOTAL		32

Signature of Teacher: 

Dated: 03/07/2023

Remarks by DMRC: **APPROVED**

Signature of Chairman: 

Dated: 01/08/2023