



TENTATIVE TEACHING PLAN (THEORY)

Department: **Civil Engineering**

Name of Teacher: **Dr. Ashfaque Ahmed Pathan**

Subject: **Environmental Engineering –I** Course Code: **CE351**

Batch **21CE (A+B+C+D)**

Year: **3rd**

Semester: **1st**

Semester Starting Date: 15-07-2024

Semester Suspension Date: **06-11-2024**

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

CLO	Description	Taxonomy Level	PLO
1	DESCRIBE the characteristics of potable water used in daily life, environmental legislations and management.	C2	1
2	EVALUATE the water treatment plants and water distribution networks	C5	4

S #	Topic	CLOs	No: of lecture/hrs required
1.	Introduction to Environmental Engineering: Overview of the subject, Importance of EE in Civil Engineering and Basic concepts.	1	1
2.	Water Supply Engineering: Water demand, Estimation of water per capita demand, Factors affecting water use, Design periods and factors governing design periods, Methods of population forecast, Water sources.	1	6
3.	Water Quality: Hydrological cycle, Sampling methods, Water characteristics, Water quality analysis, Water quality monitoring..	1	4
4.	Environmental Legislation and Management: Environmental issues of urban and rural areas, Environment and sustainable development, Role of various environmental agencies to prevent environmental degradation, National Environmental Quality Standards (NEQS). Environmental Impact Assessment (EIA).	1	5
5.	Water Supply Projects and Water Collection: Importance and necessity of planned water supplies, Planning and preparing a water supply project: data to be collected, analysis of data and project formulation, project drawings, project estimates, project supervision and reporting. Water collection methods, Intakes, factors governing location of intake, types of intake, design of intake.	2	4
6.	Water Treatment Unit Processes/Operations: Standard water treatment methods: screening, sedimentation, coagulation, filtration and disinfection, water softening, special water treatment methods	2	6
7.	Water Distribution: Water supply system, Water distribution methods: requirements of a good distribution system	2	1
8.	Water Conveyance: Conduit and its types, Pumps, types of pumps and design of a pumping Stations	2	2
9.	Design of Water Treatment Plant: Design of various water treatment unit operations	2	3
	Total		32

Signature of Teacher:

Dated: 11-07-2024

Remarks of DMRC: APPROVED

Signature of Chairman

Dated: 18-09-2024