

Course Type	Course Code	Name of the course	L	T	P	Credit
DP	CEC205	Environmental Engineering Laboratory	0	0	2	2

Course Objective			
The subject offers the readers a fundamental understanding of the water quality parameters and its role in environmental engineering. To describe methods of advanced effluent treatment for higher discharge standards and effluent re-use.			
Learning Outcomes			
After doing this course, students should be able to: <ul style="list-style-type: none"> Understand the physico-chemical water quality parameters and the significance. Understanding the operational condition during project work. 			
Expt No.	Topics to be Covered	Laboratory	Learning Outcome
1	Calibration of pH meter, TDS and conductivity meter and determination of pH, TDS and conductivity of a given water sample.	1	Understand the water quality parameters and their significance.
2	Determination of Turbidity and Sulphate in given water sample	1	
3	Determination of acidity and alkalinity of given water sample.	1	
4	Determination of hardness, chloride of given water sample.	1	
5	Determination of optimum coagulant dose using jar test.	1	
6	Determination of optimum lime soda dose for hardness removal	1	
7	Determine DO, BOD and COD and biodegradability index of a given wastewater Sample.	1	
8	Determine the ammonical nitrogen and TKN concentration in the given wastewater samples.	1	
9	Determine TS, TSS, VSS and FS in the given sludge samples.	1	
10	Determine the oil and grease content in given wastewater samples.	1	
11	Determine the MLVSS, MLSS, SVI and VSS/SS ratio of a given sludge sample.	2	
12	Revision / missed experiments due to valid reasons	1	
13	Viva voce/ practical exam	1	

Text Books/References:

1. Relevant Indian and International Standard code of practice.
2. Manual for Environmental Engineering Laboratory