

Lesson Plan for the Session Aug-Dec 2025-2026 (Odd Sem)

 Faculty Name: **SHRUTHI H G**

 Subject with code: **Environmental Engineering Laboratory -BCV504**

 Semester with section: **5<sup>th</sup> Sem**

Class taken dates	Topics proposed to be covered	% Portion covered	Remarks
22/8/2025	Preparation chemical solutions required for analysis and sampling methodologies	11.1	
29/8/2025	Determination of Calcium, Magnesium and Total Hardness.	22.2	
19/9/2025	Determination of pH, Conductivity, TDS and Turbidity	33.3	
19/9/2025	Determination of Chlorides	33.3	
26/9/2025	Determination of percentage of % of available chlorine in bleaching powder sample, Determination of Residual Chlorine and chlorine demand	44.4	
26/9/2025	Determination of Solids in Sewage: i) Total Solids, ii) Suspended Solids, iii) Dissolved Solids, iv) Volatile Solids, Fixed Solids v) Settleable Solids	44.4	
24/10/2025	Determination of Dissolved Oxygen, BOD	55.5	
31/10/2025	Determination of Acidity and Alkalinity	66.6	
7/11/2025	Determination of optimum coagulant dosage using Jar test apparatus.	77.7	
14/11/2025	Determination Nitrates and Iron by spectrophotometer	88.8	
21/11/2025	Determination of COD(Demonstration)	100	
21/11/2025	Air Quality Monitoring (Demonstration)	100	
21/11/2025	Determination of Sound-by-Sound level meter at different locations (Demonstration)	100	

**List of Text Books**

1. Highway Engineering- Khanna, S.K., and Justo, C.E.G.: Nem Chand and Bros. Roorkee.
2. Construction Equipment and its Management- Sharma, S.C.:Khanna Publishers.
3. Hot Mix Asphalt Materials, Mixture Design and Construction- Freddy L. Roberts, Kandhal, P.S: University of Texas Austin, Texas. NAPA Education Foundation Lanham, Maryland

**List of Reference Books**

1. RRL, DSIR, 'Bituminous Materials in Road Construction', HMSO Publication.
2. RRL, DSIR, 'Soil Mechanics for Road Engineers', HMSO Publication.
3. Relevant IRC codes and MoRT& H specifications

