| Course Number and Name | | | | | | | | | | | | | | |
|--|---|--|--------------------|---------|--------|--------|---------------|----------|----------|---------|---------|---|---|--|
| BCE6L2 - ENVIRONMENTAL ENGINEERING LAB | | | | | | | | | | | | | | |
| Credits and Contact Hours 2 & 45 | | | | | | | | | | | | | | |
| | | 4 2 | NT. | | | | | | | | | | | |
| | <u>Coordi</u> | nator's | Name | | | | | | | | | | | |
| | Aswathy | 1 D C | | | | | | | | | | | | |
| | ooks an | | ences | | | | | | | | | | | |
| REFERENCES: | | | | | | | | | | | | | | |
| 1. T | rivedhi | and Go | el. Che | mical a | nd Bio | logica | al Metho | ds for V | Vater Po | llution | studies | | | |
| 2. A | 3 / | | | | | | | | | | | | | |
| 3. Research Institute Nagpur Publication. | | | | | | | | | | | | | | |
| 4. Standard Methods for Examination of Water and Wastewater - APHA, AWAA and WPCF, | | | | | | | | | | | | | | |
| 1985 Edition. | | | | | | | | | | | | | | |
| Course Description | | | | | | | | | | | | | | |
| • To understand the sampling and preservation methods and significance of | | | | | | | | | | | | | | |
| characterization of wastewater. | | | | | | | | | | | | | | |
| Prerequisites | | | | | | | Co-requisites | | | | | | | |
| Physics and Chemistry Laboratory-I | | | | | | | | NIL | | | | | | |
| required, elective, or selected elective (as per Table 5-1) | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Course Outcomes (COs) | | | | | | | | | | | | | | |
| CO | 01 | Have a fundamental knowledge to conduct various quality tests on water and | | | | | | | | | | | | |
| | | wastewater | | | | | | | | | | | | |
| CO2 Have a well-founded knowledge to assess the suitability of water | | | | | | | | | r for dr | inking | and | | | |
| | | | rrigation purpose. | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CO | CO3 Acquire skills in assessing the suitability of water for concreting works | | | | | | | | | | | | | |
| Student Outcomes (SOs) from Criterion 3 covered by this Course | | | | | | | | | | | | | | |
| CC | Os/SOs | a | b | С | d | e | f | g | h | i | i | k | | |
| | CO1 | | Н | M | | M | | | | | , | | 1 | |
| | | | | | | | | | | | | | | |
| (| CO2 | | Н | M | | M | | | | | | | | |
| | CO3 | | Н | M | | M | | + | | | 1 | | | |
| | | | 11 | 141 | | 171 | | | | | | | | |
| List of | Topics | Covere | d | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

LIST OF EXPERIMENTS:

- 1. a. Determination of pH.
 - b. Determination of Turbidity
- 2. Determination of hardness.
- 3. Determination of Alkalinity.
- 4. Determination of Residual Chlorine
- 5. Estimation of Chlorides.
- 6. Estimation of Ammonia Nitrogen.
- 7. Estimation of Sulphate.
- 8. Determination of optimum coagulant dose.
- 9. Determination specific conductivity.
- 10. Estimation of available chlorine in Bleaching Powder.
- 11. Determination of dissolved Oxygen.
- 12. Determination of suspended settleable, Volatile and fixed solids.
- 13. B.O.D.Test
- 14. C.O.D.Test