

GUJARAT TECHNOLOGICAL UNIVERSITY
B.E. SEMESTER : VI
ENVIRONMENTAL SCIENCE & TECHNOLOGY

Subject Name: Liquid Effluent Control - I

Subject Code: 163504

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam(E)	University Exam(P)	Mid Sem Exam(Theory) (M)	Practical (Internal)
4	0	3	7	70	0	30	50

Sr No	Course Contents
1	Characterization of urban and rural water pollution. Characteristics of liquid effluents coming out of chemical industry.
2	Legislation and norms for clean effluent. Health issues related to liquid effluents. Seepage of effluents and prevention of the same.
3	Physical, Chemical and Biological methods of controlling liquid effluents.
4	Membrane processes in effluent control.
5	Water supply, distribution and sewage systems, disinfection etc.

Reference Books:

1. Industrial Water Pollution Control, Eckenfelder W.W.; McGraw Hill Book Company , 3rd Ed, 2000
2. Environmental Engineering, Kiely G.; McGraw Hill Book Company, 1998
3. Elements of Water Resources Engineering ,Duggal K.N and J P Soni, New Age International Publishers, 2005
4. Water Treatment Plants: Planning, Design & Control, S R Qasim, Technomic Pub. Co., 1999
5. Water Supply and Sanitary Engineering ,Birdie and Birdie, Dhanpatrai and Sons, 1996
6. Environmental pollution and control engineering, Rao C. S. - Wiley Eastern Limited,India,1993.
7. Pollution control in process industries, S.P. Mahajan TMH.,1985.
8. Waste water treatment, M.Narayana Rao and A.K.Datta,Oxford and IHB publ. New Delhi.
9. Industrial Pollution Control and Engineering. Swamy AVN, Galgotia publications, 2005.
10. Environmental engineering and sanitation: Joseph A. Salvato , John Wiley & Sons,4th Ed. ,2003