

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

Subject Name: Solid Waste: Characterization & Treatment

Subject Code: 163505

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 and generation of solid wastes: Municipal waste, dairy wastes, agricultural wastes, slaughter house wastes and service industry wastes: Chemical Industry wastes.
2	Physico-chemical and Biological methods of treating solid wastes.
3	Land fill and legislations of disposing solid wastes. Incineration techniques and generation of energy from solid wastes, Design and concepts of incinerators
4	Hazardous wastes management. HAZOP and other methods to control and model the wastes in Chemical Industry.

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. Environmental Pollution Control and Engineering, Rao C.S.,New Age International (P) Limited, 1991.
4. Treatment of Industrial Wastes, Besseliere, E and Schwartz. McGraw Hill. 1975.
5. Handbook of Solid Waste Management and Waste Minimization Technologies, N P Cheremisinoff, Butterworth-Heinemann, 2003
6. Integrated Solid waste Management, F Dougal and P White, John Wiley and Sons, 2001
7. Solid waste Engineering, Worrell and Vesilind, Cengage Learning, 2nd Ed., 2001