

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Semester: II

Master of Environmental Engineering

Subject Name **Major Elective III**
Noise Pollution and Thermal Pollution and Their control

Sr.No	Course content of 1 Noise Pollution & Control
1	Physics and effects of noise :- Frequency and Sound Levels, Units of Noise based power ratio , Contours of Loudness . Effects on Human, Environment and properties
2	Sources and Monitoring of Noise Pollution :- Natural and Anthropogenic Noise Sources , Measuring Instruments for Frequency and Noise levels , Masking of sound
3	Reactor Design :Types, Kinetics, Selection of different reactors used for waste water treatment.
4	Control Of Noise Pollution :- Treatment of noise at source, Path and receptors..
2Thermal Pollution & Control	
5	Basics of Thermal Pollution: waste heats into Water and other environments
6	Sources and , Effects and control, :- Effects on Environment , Macro and Micro aquatic organisms . Effects case studies ,Methods of Control: Cooling towers and nuclear reactor cooling systems

List of Experiments: Exercise of the course

- 1.Exersice on sound classification based on Pressure levels and Frequency
2. Experiment on the sound source using SPL and Frequency
- 3 Experiment on effects of sound barriers from a source
- 4 Exercise on effects of combination of different sound
- 5 report of an noisy area of a township and creation contour of loudness
- 6 Exercise on Thermal sources and discharge in the receiving waters
- 7 Visit to field for noise and thermal pollution
- 8 Preparation report of field visit
- 9 Presentation of report

Reference Books:

- 1.Environmental Engineering Hand Book Lee and Liptak Chiltan Book Co., Philadelphia.
- 2.Environmental Protection by Chanlett - McGraw Hill
- 3.Energy its physical Impact on Environment by Delbert W. Devins