

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Semester: 1

Master of Environmental Engineering

Subject Name **Major Elective 1.1 Environmental Sanitation**

Sr.No	Course content
1	Control of Communicable and certain Noninfectious diseases : Types , agents , Control of Water , Food and Insect borne diseases and zoonoses
2	Residential and Institutional Environment : Appraisal Quality of Living , Hygiene Indices , Health Principles of Housing and its Environment
3	Indoor Quality Standards :- Causes and Sources of Indoor Air Pollution : Biological Contaminants , Thermal and moisture Requirement ; Ventilation
4	Radiation Protection:- Radiation Fundamentals - Types of radiation Ionizing and Non-Ionizing radiation , their uses and biological effects . Radioactive waste disposal Radioactive substances soil, water and air and their fate . Treatment and disposal Liquid and solid Radioactive wastes

List of Experiments:

1. Exposure to Sanitation basics and its importance
2. Reports of sanitary systems of adjoining City and towns
3. Preparation tutorial material visuals of Etiological agents and their reservoir ,vector , and spread of communicable diseases
4. Report preparation for a community sanitation conditions of a economically weak section in a city/rural area
5. Study of an epidemic and its point of origine suggested measures
6. Individually a student will prepare a project on (1)Ventilation system ,(2) Housing Environment and (3) Radiation sources, their uses and effects and one independent topic relevant to the course

Reference Books:

1. Environmental Engineering and Sanitation by Joseph A.Salvato , P.E. Dee - Wiley International latest edition (old 1992 edition)
2. Environmental Protection by Chanlett McGraw Hill Publishing Co.
3. Environmental Engineering Hand Book Lee and Tchobanoglous Mc Graw Hill

In place of above elective following Elective may be offered in First semester depending up on the need and availability of faculty