

M.Sc. Environmental Science
Semester-III
INDUSTRIAL WASTEWATER TREATMENT

UNIT-1

Introduction: Methods for the treatment of industrial wastes: reduction of volume and strength, neutralization, equalization and proportioning of the wastes.

UNIT-II

Process for removal of suspended solids, colloidal solids and organic and inorganic dissolved solids.

UNIT-III

Industrial Wastewater – Sources, Types and Environmental Impacts, environmentally balanced industrial Complexes: Pulp and paper mill complex, Sugarcane complex, Textile complex, Food Processing (cannery, dairy, brewery, distillery and cane sugar), apparel (Textile, Tannery).

UNIT-IV

Industrial Manufacturing Process - Description, Wastewater Characteristics, Source Reduction options and Waste Treatment Flow Sheet for Slaughter house-tannery-rendering complex, Fertilizer-cement complex, Steel Mill-Fertilizer-cement complex, chemical (Pesticide and Fertilizer) and energy (Thermal Power Plant).