

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA IN ENVIRONMENTAL ENGINEERING
SEMESTER: V

Subject Name: **Industrial Water Pollution**

Sr. No.	Course Content
1.	Relevant Indian Standards for Discharge of Wastewater in to Various Sinks: 1.1 Criteria and standards. 1.2 Effluent standards and stream standards. 1.3 Standards for discharge of wastewater in to river, sea, for irrigation & important considerations for it, etc. 1.4 Cost of pollution control.
2.	Quality and Quantity of Waters for Industries: 2.1 Quality of water for boiler feed, cooling water system, different manufacturing processes.
3.	Principles of Water Pollution Control: 3.1 Reduction of strength and volume 3.2 Neutralization and Equalization
4.	Removal of Heavy Metals and Radioactive Materials: Introduction and methods
5.	Major Industrial Wastes: Manufacturing process, Sources of wastewater from process, Characteristics of wastewater of each stream and Treatment of wastewater for following industries: <ul style="list-style-type: none">• Textile Industry• Dairy Industry• Pharmaceutical Industry• Chemical Industry – Dye & Dye intermediates• Food- processing Industry• Fertilizer Industry• Sugar industries• Petrochemical industries

Laboratory Experiences:

1. Tutorials based on wastewater discharge into various sinks
2. Tutorials based on Quality and quantity of waters. for different industries
3. Tutorials based on principles of Water Pollution Control
4. Tutorials based on different Industrial waste like, Pharmaceutical industry, Dairy industry with their sources & treatment.
5. Industrial visit - Dairy industry/Fertilizer industry, Textile industry, etc.

Reference Books:

1. Hand book of industrial pollution and control VOL-& II, S.C. Bhatia
2. Industrial water pollution: Origin, characteristics and treatment, Nelson Nemerow.