

Water Treatment – Prof Ligy Philip, IIT Madras

Relevant course: Water Supply Engineering

Relevant department: Civil

Pre requisite: NIL

Course outline:

Water quality parameters, water quality standards, water quality indices, quality requirement for various beneficial uses. Water safety plan, Need and extent of treatment required, objectives of public water supply system. - 1 h

Unit operations and processes – Principles, functions and design of coagulation and flocculation systems, sedimentation and sand filters- 2h

Disinfection, disinfection byproducts, Iron and Manganese removal, DE fluoridation - Residue Management. 1h

Introduction to advanced water treatment technologies such as adsorption, ion exchange and membrane process, corrosive and scale forming water, water stabilization. 1h

Point of use water treatment systems, Tertiary treatment systems for wastewater reuse - 1 h