



Course Name:

Water and Wastewater Treatment

Course Number: 20-605	Credit: 3
Program: Graduate	Course Type: General Required
Prerequisite: -	Corequisite: -

Course Description (Objectives):

The goal of this course is to provide a comprehensive understanding of water and wastewater treatment processes, including physical, chemical, and biological methods. It equips students with the knowledge to analyze, design, and optimize treatment systems while addressing sludge management and disinfection.

Course Content (outline):

- Chapter 1: Water quality, physical, chemical and biological properties of natural waters
- Chapter 2: Physical treatment processes
- Chapter 3: Chemical treatment processes
- Chapter 4: Biological treatment processes
- Chapter 5: Treatment and disposal of sludge
- Chapter 6: Disinfection
- Chapter 7: Supplementary treatment methods including nutrient removal

References:

- "Wastewater Engineering, Treatment and Reuse", Metcalf & Eddy, 4th Ed., McGraw-Hill Book Co., 2003.
- "Water Quality and Treatment", American Water Works Association, 4th Ed., McGraw-Hill Book Co., 1990.