
SECTION HEADING

RNEW 1175: Industrial Water Treatment

Description

Industrial Water Treatment covers the basic understanding of primary water treatment systems and chlorination. Students will be able to describe problems that can be caused by impurities in the water and explain how they can be removed physically and chemically. This course will also familiarize students with the basic concepts of treating industrial wastewater so it can be reused or discharged into the environment.

Credits

2

Prerequisite

None

Corequisite

None

Topics to be Covered

1. Chemistry of water
2. Scale
3. Corrosion
4. Microbial fouling
5. Water treatment methods
6. Steam generation and condensation
7. Boiler systems
8. Water cooling systems
9. Wastewater treatment systems
10. Basic analytical procedures
11. Monitoring and control systems
12. Chemicals and safety

Learning Outcomes

1. Describe the chemical and physical properties associated with water.
2. Describe the effects that scale, corrosion and microbial fouling can have on water treatment systems.
3. Explain the role of steam generation and cooling systems in water treatment programs.
4. Identify and describe the social, economic, and environmental benefits of proper industrial water treatment.

Credit Details

Lecture: 2

Lab: 0

OJT: 0

MnTC Goal Area(s): None