



Course: **Certificate in Wastewater Management**

Contact Hours: **36**

Pre-requisite: **Basic Mathematics and Science**

Abstract

This course is designed to train personnel who are responsible for the management and operation of wastewater treatment plants. It will encompass the operation of onsite and centralized treatment plants.

The information presented will include: why treat wastes, the role of the wastewater plant personnel, equipment used in operation of wastewater plant, different types of wastewater treatment processes, and troubleshooting, repair and maintenance of wastewater plants.

Target Audience

This course is ideally suited for managers, technicians, team leaders and operatives who require an understanding of the principles, practices and processes involved in wastewater treatment.

Learning outcomes

On completion of this course, learners will be able to:

1. Operate wastewater treatment processes.
2. Maintain items of equipment used in wastewater treatment processes.
3. Follow safety procedures for various processes in a wastewater treatment plant
4. Record wastewater treatment plant data.

Course Content

NO	TRAINING MODULE	LEARNING OBJECTIVES
1	Operate wastewater treatment processes.	1.1 Identify <i>reasons and requirements</i> for treatment of wastewater. 1.2 Identify major components of wastewater treatment processes. 1.3 Identify and apply practices undertaken in <i>wastewater treatment processes</i> . 1.4 Operate <i>mechanical equipment</i> used in wastewater treatment according to manufacturer specifications and organizational requirements. 1.5 Handle, use, store and dose <i>chemicals</i> according to relevant legislation and organizational procedures.
2	Maintain items of equipment used in wastewater treatment processes.	2.1 Identify maintenance requirements and schedules according to standard operating procedures. 2.2 Meet maintenance and cleaning requirements of equipment.
3	Follow safety requirements for work in a wastewater treatment plant.	3.1 Identify and record hazards of working in a wastewater treatment plant. 3.2 Identify and record operational requirements for safe and effective use of equipment. 3.3 Select, fit and use safety equipment, including personal protective equipment. 3.4 Identify and apply safe work practices when handling chemicals and working in a wastewater treatment plant.
4	Record wastewater treatment plant data	4.1 Complete records required for effective operation of a wastewater treatment plant. 4.2 Identify, record and report range of data routinely collected. 4.3 Identify data that falls outside normal operating parameters and report for further action.

Essential Learning Resources:

Learners will be sensitized to a range of various resources (textbooks and websites) relating to wastewater plant processes and operation. The participant will be advised/directed to any supplementary resource material that would be relevant during the delivery of this course. A manual will also be provided.