

# WATER AND WASTEWATER TECHNOLOGY

**UNIT CODE:** CON/CU/CET/CC/07/6/A

## Relationship to Occupational Standards

This unit addresses the unit of competency: apply water & wastewater technology

**Duration of Unit:** 120 Hours

## Unit Description

This unit describes the competence required to apply water & wastewater technology practices. It involves applying basic water supply principles, principles of wastewater collection & treatment and basic irrigation & drainage principles.

## Summary of Learning Outcomes

- 1) Apply basic water supply principles
- 2) Apply principles of wastewater collection and treatment
- 3) Apply basic irrigation and drainage principles

## Learning Outcomes, Content and Suggested Assessment Methods:

Learning Outcome	Content	Suggested Assessment Methods
1. Apply basic water supply principles	<ul style="list-style-type: none"><li>• Water demand</li><li>• Sources of water</li><li>• Water abstraction</li><li>• Water treatment</li><li>• Safe water storage and handling</li><li>• Water pipes and appurtenances</li><li>• Water supply symbols</li><li>• Distribution system</li></ul>	<ul style="list-style-type: none"><li>• Oral questioning</li><li>• Written tests</li><li>• Observation</li><li>• Practical test</li></ul>
2. Apply principles of wastewater collection and treatment	<ul style="list-style-type: none"><li>• Sources of waste water</li><li>• Types of sewers</li><li>• Sewerage systems</li><li>• Characteristics of wastewater</li><li>• Sewer appurtenances</li><li>• Wastewater Treatment processes and disposal</li></ul>	<ul style="list-style-type: none"><li>• Oral questioning</li><li>• Written tests</li><li>• Observation</li><li>• Practical test</li></ul>

	<ul style="list-style-type: none"> <li>• Wastewater symbols</li> <li>• Wastewater colour coding for pipes and exhauster trucks</li> </ul>	
3. Apply basic irrigation and drainage principles	<ul style="list-style-type: none"> <li>• Soil, plant-water relationship</li> <li>• Land preparation</li> <li>• Sources of water for irrigation</li> <li>• Irrigation farm layout</li> <li>• Quality of irrigation water</li> <li>• Irrigation methods</li> <li>• Methods of drainage</li> </ul>	<ul style="list-style-type: none"> <li>• Oral questioning</li> <li>• Written tests</li> <li>• Observation</li> <li>• Practical test</li> </ul>

### Suggested Methods of Instruction

- Demonstration by trainer
- Practice by the trainee
- Field trips
- On-job-training
- Discussions

### Recommended Resources

- Scientific Calculators
- Relevant reference materials
- Stationery
- Relevant practical materials
- Laboratories (chemical, biological & soils)
- Internet
- Projector

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