

WORK-STUDY DIPLOMA IN MECHANICAL & ELECTRICAL SERVICES SUPERVISION

Module Objectives

Building Technology

On completion of this module, trainees should be able to identify various stages of building development, main building elements, construction process and interfacing of building services with building elements during construction.

Workplace Safety and Health

On completion of this module, trainees should be able to ensure safe work procedures are put in place at the worksite, in accordance with Workplace Safety & Health (WSH) Act.

Technical Communication

On completion of this module, trainees should be able to apply both oral and written communication at work and in project documentation and presentation.

Engineering and Construction Drawings

On completion of this module, trainees should be able to interpret, amend, update and extract information from 2D M&E drawings. They should also be able to interpret construction drawings for M&E works.

Water, Sanitary and Gas Systems

On completion of this module, trainees should be able to inspect the installation of water supply, sanitary and gas systems in buildings including supervision of testing gas pipes and fittings.

M&E Services Documentation

On completion of this module, trainees should be able to prepare M&E services documentation and contract specifications. They should also be able to prepare and complete mandatory documents for the purpose of statutory submissions.

Electrical System

On completion of this module, trainees should be able to inspect electrical power distribution systems to ensure compliance with statutory requirements. They should also be able to inspect lightning protection and earthing systems.

Air-Conditioning and Mechanical Ventilation System

On completion of this module, trainees should be able to inspect and test Air-conditioning and Mechanical Ventilation (ACMV) systems to ensure compliance with contract specifications.

Fire Protection System

On completion of this module, trainees should be able to inspect and test active and passive fire protection systems. They should also be able to provide support in the commissioning of fire protection systems.

Intelligent Building and Extra Low Voltage Systems

On completion of this module, trainees should be able to inspect and test building automation system, including energy management system, general security system, broadband network and different types of control and sensors used in M&E automation systems.

Lift and Escalator Systems

On completion of this module, trainees should be able to inspect installation of escalators and lifts.

M&E Services Supervision and Management

On completion of this module, trainees should be able to plan, supervise and coordinate M&E services to meet contractual schedule and apply project management skills to monitor and manage progress of work at various stages of construction.

Building Information Modelling (BIM)

On completion of this module, trainees should be able to interpret, amend, update and extract information from Building Information Modelling (BIM) models for Mechanical, Electrical and Plumbing (MEP) systems.

On-the-Job Training I

On completion of the first year OJT, trainees should be able to apply relevant foundational skills and knowledge from their first year of study to carry out basic M&E services supervision and coordination at the worksite.

On-the-Job Training II

On completion of the second year OJT, trainees should be able to apply relevant skills and knowledge from their second year of study to carry out M&E services supervision and coordination independently at the worksite.

On-the-Job Training III

On completion of the third year OJT, trainees should be able to apply relevant skills and knowledge from their third year of study to carry out M&E services supervision and coordination independently at the worksite.