

## HIGHER NITEC IN FACILITY MANAGEMENT

### CERTIFICATION

Credits required for certification:

Core Modules	: 47
Life Skills Modules	: 9
Elective Modules	: 6
<b>Total</b>	<b>: 62</b>

### COURSE STRUCTURE

Module Title	Credits
<b>CORE MODULES</b>	
Mechanical Systems and Services	6
Electrical Systems and Services	7
Air-Conditioning Systems	7
Building Management System	6
Building Services Systems Analysis and Management	8
Project Management and Supervision	5
Industry Attachment	8
<b>ELECTIVES (COURSE SPECIFIC)</b>	
Water Efficiency in Building	2
Energy Audit and Management	4
Green Building Technology	2
Introduction to Overhaul of Reciprocating Compressor	2
Building Information Management (BIM) for Facilities Management	2
Workplace Safety and Health Management	6
<b>ELECTIVES (JOINT ITE-INDUSTRY)</b>	
Fire Safety Management	6
<b>ELECTIVES (GENERAL) AND LIFE SKILLS MODULES</b>	
For details, click <a href="#">here</a>	

*Note: The offer of electives is subject to the training schedule of respective ITE Colleges. Students are advised to check with their Class Advisors on the availability of the elective modules they intend to pursue.*

*Nitec in Facility Technology (Landscaping Services) or Nitec in Facility Technology (Vertical Transportation) graduates with minimum GPA of 3.0 and had completed "Air-Conditioning and Building Management System" and "Building Fire-Fighting and Protection Systems" elective modules can apply to progress directly to second year of study in Higher Nitec in Facility Management course.*

### MODULE OBJECTIVES

#### Core Modules

##### Mechanical Systems and Services

On completion of the module, students should be able to interpret building mechanical system plan, perform inspection of automated doors and pump system, conduct operational test of standby generator, as well as maintain the fire-protection and fire-fighting systems.

### Electrical Systems and Services

On completion of the module, students should be able to interpret electrical circuit diagrams, conduct continuity and insulation resistance tests, and coordinate setting up of AV system. They should be able to inspect the lightning protection and earthing system, conduct first line maintenance of uninterruptable power supply, and coordinate maintenance of Extra Low Voltage system as well as the power and lighting circuits.

### Air-Conditioning Systems

On completion of the module, students should be able to maintain air-conditioning system and supervise components replacement, maintain chilled water centralised system as well as cold room refrigeration system.

### Building Management System

On completion of the module, students should be able to interpret the various types of control systems linked to Building Management System (BMS), conduct system wellness check for main and sub-systems, manage common causes of faults, generate and compile system reports linked to BMS, and also supervise manned security services.

### Building Services Systems Analysis and Management

On completion of the module, students should be able to interpret architectural drawings, maintain fittings and fixtures, plumbing sanitary systems, as well as the masonry works of the building. Students should be able to supervise swimming pool maintenance, landscaping services, pest control and cleaning activities, monitor lift and escalator maintenance, as well as carry out inspection of painting works and manage electronic car park system.

### Project Management and Supervision

On completion of the module, students should be able to plan for resource deployment and work schedule, monitor project activities to ensure compliance and in accordance with safety, security and statutory requirements, and communicate with stakeholders to ensure co-operation and smooth completion of project.

### Industry Attachment

Students will be attached to relevant companies to complement and reinforce the skills and knowledge acquired at ITE and to gain professional and working experience.

## Electives (Course Specific)

### Water Efficiency in Building

On completion of the module, students should be able to conduct water audit and apply water efficiency measures to reduce water consumption in commercial/residential buildings.

### Energy Audit and Management

On completion of the module, students should be able to conduct on-site energy audit using appropriate measuring instruments and tools, and recommend corrective measures for energy savings.

### Green Building Technology

On completion of the module, students should be able to assist engineers to carry out design, fabrication, modification and commissioning of Green facilities and assist engineers in the operation, management and services related to Green facilities.

### Introduction to Overhaul of Reciprocating Compressor

On completion of the module, students should be able to identify and isolate faulty compressor; perform overhauling of reciprocating compressor; replace pistons, rings, cylinders, suction valve, discharge valve, crankshaft and main bearings while maintaining workplace health and safety.

### Building Information Modelling (BIM) for Facilities Management

On completion of the module, students should be able to interpret two-dimensional architectural layout drawings, generate three-dimensional modelling using appropriate software and retrieve relevant information on building services systems, as well as applying the effective modelling and visualisation techniques for presenting project designs.

### Workplace Safety and Health Management

On completion of the module, students should be able to apply the Workplace Safety and Health (WSH) knowledge and skills to assist in the identification of hazards and implementation of risk control measures, conduct inspection, comply and communicate WSH legal requirements, perform incident reporting, implement WSH management process, perform effective communication and report on the outcome of WSH inspection.

### Electives (Joint ITE-Industry)

#### Fire Safety Management

On completion of the module, students should be familiar with the basic working knowledge on fire science and fire safety engineering, the various types of fire protection installations, operation and maintenance, and the means to respond to fire alarm activation, fight incipient fire, and performing rescue and evacuation exercises. In addition, they should be equipped with the basic knowledge of first aid, the basic requirement of fire safety installations and maintenance including building inspection and testing of fire protection system, and the requirements of roles and responsibilities of Fire Safety Managers.

### Electives (General) and Life Skills Modules

For details, click [here](#).