

NITEC IN TECHNOLOGY – FACILITY TECHNOLOGY (AIR CONDITIONING & REFRIGERATION)

Course Code: NTFCT / Plan Code: NTFCTACR

COURSE STRUCTURE

| S/N | Module Details | Module Code | Module Objectives |
|-----|---|--|---|
| M1 | Electrical Services 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil | CB2101FPR | On completion of the module, students should be able to interpret electrical circuit diagrams, install lightings and power circuits with conduits and trunkings, replace lightings and accessories, rectify faults in lighting and power circuits, conduct insulation resistance and continuity tests and inspect lighting protection system. |
| | | Equivalent Codes CB2005PA CB2101FP | |
| M2 | Residential Air-Conditioning Services 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil | CB2103FPR | On completion of the module, students should be able to fabricate refrigeration piping; perform leak testing, evacuation and charging of refrigeration system; routine maintenance, parts replacement, install and test residential air-conditioning units; perform preventive maintenance for water cooler and dehumidifier; troubleshoot, repair and service air-cooled air-conditioning equipment. |
| | | Equivalent Codes CB2007PA CB2103FP | |
| M3 | Integrated Building Management Systems 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil | CB3101FPR | On completion of the module, students should be able to install, diagnose and service the control circuits of chilled water systems, induction motors, air-handling units, Direct Digital Controllers (DDC) and other related components; troubleshoot and repair defective components of water cooled air-conditioning equipment and chilled water control system; and maintain cooling tower. They are also trained to operate and monitor the Building Automation Systems. |
| | | Equivalent Codes CB3002PA CB3101FP | |
| M4 | Commercial Air-Conditioning Systems 36 hrs (T) 84 hrs (P) Credits: 4 Prerequisite: Nil | CB3202FPR | On completion of the module, students should be able to install, maintain, service and repair air-cooled and water-cooled air-conditioning system for commercial applications including system using variable refrigerant volume; repair cooling tower assembly; interpret refrigeration piping and wiring circuits; replace faulty components; and perform routine and predictive maintenance for air-conditioning equipment. |
| | | Equivalent Codes CB3001PA CB3202FP | |
| M5 | Air-Conditioning Distribution Systems 36 hrs (T) 84 hrs (P) Credits: 4 Prerequisite: Nil | CB3203FPR | On completion of the module, students should be able to interpret the air distribution, ducting and piping layout diagrams for air-conditioning systems including duct and pipe sizing; installation of centrifugal pumps and piping; balancing of air and water; production of the working drawings; repair air handling unit assembly and air distribution system; and measure indoor air quality. |
| | | Equivalent Codes CB3207PA CB3203FP | |
| M6 | Commercial Refrigeration Systems 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil | CB3204FPR | On completion of the module, students should be able to troubleshoot faults in refrigeration equipment; install refrigeration systems for cold storage applications including refrigeration compressors and evaporators, capacity controls, operation of commercial refrigeration system, piping arrangement, defrosting methods and electrical control; and replace faulty components of commercial refrigeration equipment. |
| | | Equivalent Codes CB3206PA CB3204FP | |

Abbreviations: T – Theory, P – Practical

CREDITS FOR CERTIFICATION

Total of 35 credits from successful completion of 6 modules.

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.