

Nitec in Technology – Electrical Technology (Power & Control)

Code: NTELT

Duration: 720 Hours

Synopsis:

This course provides students with the technical skills and knowledge to maintain electrical installations, equipment and systems as well as telecommunication and data cabling systems in domestic premises, commercial buildings and industrial plants according to engineering specifications and relevant codes of practice.

This course consists of **6 modules** as shown below:

<p>Module 1: Electrical Circuits and Principles (ECP)</p> <p>Durations: 60 hrs (Theory); 60 hrs (Practical)</p> <p>Module Objectives:</p> <p>On completion of the module, students should be able to explain the basic principles of electricity, connect simple electrical circuits and use measuring instruments to measure and monitor electrical quantities.</p>	<p>Module Code: EE2101LS</p> <p>Credits: 7</p> <p>Prerequisite: NIL</p>
<p>Module 2: Electrical Installations and Testing (EIT)</p> <p>Durations: 60 hrs (Theory); 60 hrs (Practical)</p> <p>Module Objectives:</p> <p>On completion of the module, students should be able to install electrical wiring systems in residential premises, commercial and industrial buildings in compliance with relevant local standards, regulations and codes of practice.</p>	<p>Module Code: EE2102LS</p> <p>Credits: 6</p> <p>Prerequisite: NIL</p>
<p>Module 3: Electrical Machines and Control (EMC)</p> <p>Durations: 30 hrs (Theory); 90 hrs (Practical)</p> <p>Module Objectives:</p> <p>On completion of the module, students should be able to inspect, operate, maintain and service electrical motors including installations of various starters for electrical rotating machines. In addition, students are also trained to select, connect, troubleshoot and rectify faults in motor control circuits.</p>	<p>Module Code: EE2103LS</p> <p>Credits: 5</p> <p>Prerequisite: NIL</p>
<p>Module 4: Electrical Drafting and Design (EDD)</p> <p>Durations: 18 hrs (Theory); 102 hrs (Practical)</p> <p>Module Objectives:</p> <p>On completion of the module, students should be able to use CAD software to produce electrical drawings and diagrams in compliance with regulations and codes of practice.</p>	<p>Module Code: EE2104LS</p> <p>Credits: 5</p> <p>Prerequisite: NIL</p>

Module 5:	Special Installations and Equipment Maintenance (SIEM)	Module Code:	EE3101LS
Durations:	39 hrs (Theory); 81 hrs (Practical)	Credits:	6
Module Objectives:	Prerequisite:		NIL
On completion of the module, students should be able to diagnose and troubleshoot faults in electrical appliances and equipment, install and maintain temporary and special electrical installations in accordance with codes of practice.			
Module 6:	Electrical Power and Switchboards (EPS)	Module Code:	EE3102LS
Durations:	30 hrs (Theory); 90 hrs (Practical)	Credits:	6
Module Objectives:	Prerequisite:		NIL
On completion of the module, students should be able to install, test and maintain low voltage (LV) electrical switchboards and equipment.			

Note:

- For information on application for Installer Licence, contact IDA Singapore, Licensing & Enforcement Department on Tel: (65) 62111948, and on application for Electrical Worker Licence, contact Energy Market Authority on Tel: (65) 68358075.

Entry Requirements:

- Applicant must be at least 18 years of age.
- 3 GCE 'N' (Grade A-D or Grade 1-5) passes in Mathematics and two other subjects; or
- 2 GCE 'O' (Grade 1-8) in any 2 subjects; or
- Passed ISC/CoC in Electrical Wiring; or
- Passed ISC/CoC in Electrical Fitting; or
- Passed ISC/CoC in Electrical Motor Manufacturing; or
- Passed ISC/CoC in Instrument Fitting; or
- Passed ISC/CoC in Lift Adjustment & Maintenance; or
- Passed ISC/CoC in Lift Installation; or
- Passed ISC/CoC in Electrical Servicing; or
- Workplace Literacy & Numeracy (WPLN) Level 5 in Reading, Speaking, Listening and Numeracy; or
- Entrance test conducted by ITE.
- Applicant should be free from colour appreciation deficiency.

Duration:

The total minimum required Curriculum Hours for 6 Modules is 720 hrs. This programme is offered either as:

- **Full-time** over 9 months. All classes will be conducted from 9.00 am to 5.30 pm on weekdays.
- **Part-time** over 36 months. All classes will be conducted once per week (either weekday or weekend) from 9.00 am to 5.30 pm; or 2 evening sessions per week (during weekdays) from 6.30 pm to 10.00 pm.

Frequency:

Every January and July (for public exams) intake, or at other times based on the schedule of the company for customised training.

Training Medium:

This course is conducted in English.

Training Methodology:

This course is delivered through lectures, E-learning, tutorials and hands-on practical activities.

Essential Requirements:

- Scientific Calculator: CASIO FX-570MS / CASIO FX-991MS / SHARP EL-506W / SHARP EL-520W
- Safety Shoes

Examination:

A student must achieve **at least 80%** of the total possible attendance in that module in order to be eligible for the end of module examination. Medical leave and approved absence are not counted against a student when the attendance requirement is computed.

Certification:

Module Certificate(s) for *Nitec* course of study will be awarded for the module(s) that a student passed in the examination series.

To obtain the full certification and an academic transcript of *Nitec* in Technology – Electrical Technology (Power & Control), student needs to accumulate at least 35 credits within 6 years from the first examination.

Credits for Certification	
From Core Modules	35
Total:	35

Progression Pathway:

In general, the completion of a module is sufficient for progression to the next module of a course of study.

Nitec in Technology – Electrical Technology (Power & Control) graduates with a Grade Point Average (GPA) of 3.5 and above may apply for provisional admission to CET diploma courses offered at the 5 polytechnics. Applicants who are granted provisional admission by the polytechnics need to complete a [bridging programme](#) conducted by ITE.

Nitec in Technology – Electrical Technology (Power & Control) graduates with a GPA of 2.3 and above may also apply for progression to related *Higher Nitec* courses offered by ITE.

Career Prospect:

Nitec in Technology – Electrical Technology (Power & Control) graduates are employed by government departments, statutory boards, electricity generation, transmission and distribution companies, manufacturing plants, and companies dealing in M & E consultancy services, electrical engineering works and building services.

Some of the job titles held by *Nitec* in Technology (Power & Control) graduates include:

- Electrical Technician
- Electrical Installation Technician
- Electrical Power Technician
- Electrical Equipment Manufacturing Technician
- Electrical Draughtsman

Students who graduate and obtain the full *Nitec* Certificate in Technology – Electrical Technology (Power & Control) have more opportunities to advance their career to supervisory positions. Moreover, their knowledge and skills can help to add value to their organisation.