

## Nitec in Technology – Electronics (Computer & Networking)

Code: NTECS

Duration: 600 Hours

### Synopsis:

This course provides students with the skills and knowledge to install, test and service and commission computer, peripherals and Machine-to-Machine (M2M) communications to support a broad range of applications in intelligent automation, remote monitoring of Microcomputer-based equipment. Besides computer related equipment, students will be equipped with the knowledge in electronics to prepare them for emerging industries such as medical technology, avionics and green energy applications.

This course consists of **5 modules** as shown below:

<p><b>Module 1:</b> Electronic Principles and Measurements (EPM)</p> <p><b>Durations:</b> 60 hrs (Theory); 60 hrs (Practical)</p> <p><b>Module Objectives:</b></p> <p>On completion of the module, students should be able to apply the basic principles of electronics to connect and test electrical circuits. They should also be able to construct prototype electronic project on printed board.</p>	<p><b>Module Code:</b> EC2101LS</p> <p><b>Credits:</b> 7</p> <p><b>Prerequisite:</b> NIL</p>
<p><b>Module 2:</b> Digital Electronics (DE)</p> <p><b>Durations:</b> 60 hrs (Theory); 60 hrs (Practical)</p> <p><b>Module Objectives:</b></p> <p>On completion of the module, students should be able to design, build and test basic digital circuits. They should also be able to construct prototype digital electronic projects.</p>	<p><b>Module Code:</b> EC2102LS</p> <p><b>Credits:</b> 7</p> <p><b>Prerequisite:</b> NIL</p>
<p><b>Module 3:</b> Analogue Electronics (AE)</p> <p><b>Durations:</b> 60 hrs (Theory); 60 hrs (Practical)</p> <p><b>Module Objectives:</b></p> <p>On completion of the module, students should be able to interpret, construct, test and troubleshoot analogue electronic circuits. They should also be able to construct prototype analogue electronic projects.</p>	<p><b>Module Code:</b> EC2103LS</p> <p><b>Credits:</b> 7</p> <p><b>Prerequisite:</b> NIL</p>
<p><b>Module 4:</b> Networking Devices and Applications (NDA)</p> <p><b>Durations:</b> 60 hrs (Theory); 60 hrs (Practical)</p> <p><b>Module Objectives:</b></p> <p>On completion of the module, students should be able to assemble, set up and test a computer system. They should also be able to connect, configure and test the Ethernet modules in a wired local area network.</p>	<p><b>Module Code:</b> EC3203LS</p> <p><b>Credits:</b> 7</p> <p><b>Prerequisite:</b> NIL</p>

<b>Module 5:</b>	Wireless Network and Services (WNS)	<b>Module Code:</b>	EC3204LS
<b>Durations:</b>	60 hrs (Theory); 60 hrs (Practical)	<b>Credits:</b>	7
<b>Module Objectives:</b>	On completion of the module, students should be able to configure a computer system to connect to a wireless local area network, and to secure a wireless network.		
		<b>Prerequisite:</b>	NIL

### Entry Requirements:

- Applicant must be at least 18 years of age.
- 3 GCE 'N' (Grade A-D or Grade 1-5) passes in Mathematics or Science and two other subjects; or
- 2 GCE 'O' (Grade 1-8) in any 2 subjects; or
- Passed ISC/CoC in Electronics Manufacturing; or
- Passed ISC/CoC in Wafer Fabrication; 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 5 Modules is 600 hrs. This programme is offered either as:

- **Full-time** over 6 months. All classes will be conducted from 9.00 am to 5.30 pm on weekdays.
- **Part-time** over 30 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 can be conducted in either English or Mandarin.

### Training Methodology:

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

### Essential Requirement:

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

## 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 – Electronics (Computer & Networking), student needs to accumulate at least 35 credits within 6 years from the first examination.

Credits for Certification	
From Core Modules	35
Total:	35

**Note:** ITE will stop this framework at the end of 2018. The full certification of *Nitec* in Technology – Electronics (Computer & Networking) will also stop at the end of 2018. Completed modules (M1, M2 and M3) are able to be mapped over to the new framework, *Nitec* in Technology – Electronics, Computer Networking & Communications.

## 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 – Electronics (Computer & Networking) 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 – Electronics (Computer & Networking) graduates with a GPA of 2.3 and above may also apply for progression to related *Higher Nitec* courses offered by ITE.

## Career Prospect:

Most students of ELITC are employed in the electronics manufacturing workforce. Students who graduate and obtain the full *Nitec* Certificate in Technology – Electronics (Computer & Networking) have more opportunities to advance their career to supervisory positions. Moreover, their knowledge and skills can help to add value to their organisation.

Some of the job titles held by *Nitec* in Technology – Electronics (Computer & Networking) graduates include:

- Computer Systems Technician
- Electronics Servicing Technician
- Electronics Production Technician
- Electronics Maintenance Technician