

# **MAURITIUS QUALIFICATIONS AUTHORITY**

# **NATIONAL CERTIFICATE**

LEVEL 3

IN

**ELECTRICAL INSTALLATION** 

## National Certificate Level 3 in Electrical Installation

1. Level: 3

2. Credits: 118

3. Review date: June 2030

#### 4. Access to qualification

### 4.1 Entry information

National Certificate of Education (NCE)

Or

National Certificate Level 2 in Electrical Installation

## **4.2** Recognition of Prior Learning (RPL)

Potential candidates holding at least 3 years of working experience in the relevant field may access this qualification through Recognition of Prior Learning (RPL) process.

#### 4.3 Award of qualification requirements

Unit No.	Unit Standard Title	Level	Credit			
Safety in electrical works						
01	Demonstrate knowledge of health and safety regulations in electrical installations	3	2			
02	Observe safety precautions on construction site	3	2			
03	Show ability to work in elevated positions	3	2			
Basic workshop skills for electricians						
04	Use common electrician hand-tools	3	2			
05	Demonstrate basic workshop skills related to electrical trade	3	4			

06	Perform soldering	3	2		
	Basic electrical concepts				
07	Demonstrate knowledge of basic electrical quantities	3	5		
08	Perform measurements in electrical circuits	3	3		
09	Demonstrate knowledge in electromagnetism	3	4		
10	Demonstrate knowledge of alternating current characteristics	3	5		
11	Test basic electronics components	3	4		
Electrical cable					
12	Demonstrate knowledge of different types of electrical cords and cables	3	4		
13	Terminate and join cables	3	3		
	Lighting circuits				
14	Install lighting and socket circuits	3	3		
15	Mount and wire a single-phase Consumer Control Unit (CCU)	3	2		
16	Demonstrate ability to safely isolate an electrical installation	3	2		
17	Install different types of light fixtures	3	3		
18	Carry out fault findings on electrical circuits	3	2		
	Power circuits				
19	Perform wiring using different support systems	3	2		
20	Use portable power tools	3	2		
21	Connect single phase transformers	3	3		
22	Lay electrical cables	3	4		
23	Install earthing systems	3	4		
24	Install three-phase industrial socket outlets	3	3		
	Testing of Electrical Installations				

Test installations as per current regulations	3	2			
Demonstrate understanding of Sustainable and Smart Electrical Systems	3	3			
DC and AC Motors					
Sketch the circuit diagrams of commonly used single-phase power tools and apparatus	3	2			
Demonstrate knowledge of single phase and three phase motors	3	2			
Carry out electrical repairs on simple power tools and electronic circuits	3	4			
Associated Studies					
Demonstrate effective communications skills	3	8			
Demonstrate mathematical skills and knowledge	3	4			
Demonstrate technical drafting skills	3	8			
Demonstrate good work ethics	3	1			
Demonstrate knowledge of and apply safety and health measures	3	1			
Demonstrate knowledge of entrepreneurship development	3	2			
Demonstrate knowledge of sustainable development	3	1			
Demonstrate understanding and use of information technology	3	4			
Demonstrate knowledge of physical education	3	4			
Total Credits		118			
	Demonstrate understanding of Sustainable and Smart Electrical Systems  DC and AC Motors  Sketch the circuit diagrams of commonly used single-phase power tools and apparatus  Demonstrate knowledge of single phase and three phase motors  Carry out electrical repairs on simple power tools and electronic circuits  Associated Studies  Demonstrate effective communications skills  Demonstrate mathematical skills and knowledge  Demonstrate good work ethics  Demonstrate knowledge of and apply safety and health measures  Demonstrate knowledge of entrepreneurship development  Demonstrate knowledge of sustainable development  Demonstrate understanding and use of information technology  Demonstrate knowledge of physical education	Demonstrate understanding of Sustainable and Smart Electrical Systems  DC and AC Motors  Sketch the circuit diagrams of commonly used single-phase power tools and apparatus  Demonstrate knowledge of single phase and three phase motors  Carry out electrical repairs on simple power tools and electronic circuits  Associated Studies  Demonstrate effective communications skills  Demonstrate mathematical skills and knowledge  Demonstrate technical drafting skills  Demonstrate good work ethics  Demonstrate knowledge of and apply safety and health measures  Demonstrate knowledge of entrepreneurship development  Demonstrate knowledge of sustainable development  Demonstrate understanding and use of information technology  Demonstrate knowledge of physical education  3			

### 5. Purpose:

This qualification represents a set of foundation skills for Electrical Installation. Holders of this qualification are able to install, maintain, and repair electrical wiring and equipment in residential and commercial environments. This qualification prepares candidates to work as Electrician (Grade II) or Electrical Tradesmen.

#### 6. Qualification pathways:

Upon successful completion of the National Certificate Level 3 in Electrical Installation, learners can choose to enrol for the National Certificate Level 4 in Electrical Installation Works.