



MAURITIUS QUALIFICATIONS AUTHORITY

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NATIONAL CERTIFICATE

LEVEL 3

IN

AUTOMOTIVE MECHANICS

AND

ELECTRONICS

National Certificate Level 3 in Automotive Mechanics and Electronics

1. **Level of qualification:** 3
2. **Total Credits:** 116
3. **Review date:** October 2025
4. **Access to qualification**

4.1 Entry information

National Certificate of Education (NCE)/Grade 9 of the Nine Year Continuous Basic Education (NYCBE)

or

An alternative qualification at Level 2 of the NQF

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
Basic workshop skills			
1	Demonstrate good work habits and perform safe work practices in the motor and related industries	3	1
2	Select and use hand tools and workshop equipment for an automotive application	3	1
3	Measure linear and angular dimension.	3	1
4	Carry out general engineering tasks in the motor industry	3	3
5	Perform soldering operation	3	1
6	Use a multimeter to measure electrical quantities	3	1
Engine systems			
7	Explain the operation of two and four stroke petrol and diesel engines	3	1

8	Perform an engine compression test	3	1
9	Remove an engine from the framework	3	1
10	Dismantle and reassemble a four-stroke engine petrol engine	3	8
Engine sub systems			
11	Service Lubrication system	3	2
12	Service cooling systems	3	2
13	Service Fuel System of Spark Ignition Engine (petrol engine)	3	2
14	Service Fuel System of Compression Ignition Engine (diesel engine)	3	2
15	Service Intake and Exhaust system	3	1
Battery and ignition systems			
16	Maintain batteries	3	2
17	Service ignition systems of a spark ignition engine	3	2
Starting and charging systems			
18	Apply principles of electromagnetism to auto electricity	3	1
19	Service charging system	3	3
20	Service starting system	3	3
Lighting, horn and wiper systems			
21	Service vehicle lighting system	3	3
22	Service horn system	3	1
23	Service wiper system	3	2
Clutch and gearbox			
24	Service a clutch release mechanism	3	1
25	Check, rectify and overhaul vehicle clutch assemblies	3	2
26	Check, rectify and overhaul automotive transmissions system	3	3
Drive line systems			
27	Service constant velocity joints	3	1

28	Service a propeller shaft, sliding joint and universal joint	3	1
29	Service a semi floating rear axle	3	1
30	Service a final drive unit	3	2
Braking systems			
31	Service a mechanical parking brake	3	1
32	Diagnose and repair master cylinder faults	3	2
33	Service a drum brake	3	2
34	Service a disc brake assembly	3	2
35	Remove and replace a power-assisted brake unit	3	2
Suspension systems			
36	Service a Wish-bone type suspension	3	2
37	Service a Macpherson strut suspension	3	3
38	Service a leaf spring suspension	3	2
39	Remove and refit a telescopic damper	3	2
Steering system			
40	Service a rack and pinion steering system	3	2
41	Service a recirculating ball steering system	3	2
42	Service steering linkages	3	1
Tyres and steering geometry			
43	Service tyres of cars and light commercial vehicles	3	2
44	Check and adjust steering geometry	3	2
Associated Studies			
45	Demonstrate effective communications skills	3	8
46	Demonstrate mathematical skills and knowledge	3	4
47	Demonstrate technical drafting skills	3	8
48	Demonstrate good work ethics	3	1
49	Demonstrate knowledge of and apply safety and health measures	3	1
50	Demonstrate knowledge of entrepreneurship development	3	2
51	Demonstrate knowledge of sustainable development	3	1

52	Demonstrate understanding and use of information technology	3	4
53	Demonstrate knowledge and basic performance skills in two physical activities	3	4
Total Credits		116	

5. Purpose

This qualification is intended for people wishing to pursue a career in the field of Automotive Mechanics and Electronics. People awarded with this qualification would have acquired the skills and knowledge required to function effectively and efficiently within the industry.