

# LEVEL 5 DIPLOMA IN ELECTRICAL TECHNOLOGY – VEHICLES / MOD

## Program Description

The Level 5 Diploma in Electrical Technology - Vehicles program aims to provide learners with the knowledge, skills, and competencies to fit, adjust, install and repair electrical machinery and other electrical apparatus and equipment in buildings, factories, motor vehicles, maintain heavy vehicles and trucks, workshops or other places.

## Program Learning Outcomes

1. Commission and maintain electrical equipment.
2. Diagnose, test and repair electrical equipment.
3. Provide technical assistance.
4. Read and prepare electrical diagrams.
5. Comply with safety regulations and work effectively with others.

## Requirements

### Completion Requirements

Students seeking the Level 5 Diploma in Electrical Technology- Military Vehicle Maintenance qualification must successfully complete 91 credits, including:

Code	Title	Credit Hours
Mandatory core unit credits		16
Electrical stream credits (level 4)		16
Electrical stream credits (level 5)		23
Electrical optional credits (level 5)		36

Code	Title	Credit Hours
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### Electrical Technology Mandatory Core Units

Required Credits: 16		
MCT 200	Interpret and document technical information	2
MCT 201	Apply engineering technology to real or simulated situations to produce technical solutions	4
MCT 230	Perform practical training and support in electromechanical based industries	10

### Electrical Technology Stream Units

Required Credits:39		
ECT 121	Explore electronics	4
ECT 225	Demonstrate AC and DC principles in electronic circuits	3
ECT 120	Explore combination logics	3
ECT 224	Terminate and connect low voltage electrical cables	3
ECT 122	Maintain electrical circuits and systems	3
ECT 222	Analyse Electrical Machines	4
MCT 111	Select instruments and sensors for measurement	3
ECT 123	Apply DC and AC machines in engineering	2
ECT 221	Create printed circuit boards	2

ECT 101	Explore AC electrical circuits	4
ECT 223	Explore simulations of electrical circuits	2
ECT 124	Write programs using C++	3
ECT 220	Test and maintain electrical transformers	3

### Electrical Technology Optional Unit

Required Credits: 36		
GED 100	Develop English language skills	3
MAT 210	Apply fundamental concepts and skills in algebra, geometry, and trigonometry	4
HSE 100	Explore Health, Safety and Environment at Workplace	2
MOD 114	Utilize Equipment to Maintain Vehicle Electrical Systems	1
MOD 115	Maintain the Electrical System for Heavy Vehicles	4
MOD 116	Maintain the Glow plugs, Lighting and Transmission Systems for Heavy Vehicles	3
MOD 217	Maintain the Operating System for High Mobility Trucks	4
MOD 218	Inspect the Lighting, Transmission and Auxiliary Systems for High Mobility Trucks	3
MOD 219	Maintain the Operating System for Light Armored Vehicles	4
MOD 220	Maintain the Lighting and Auxiliary Systems for Light Armored Vehicles	3
MOD 221	Maintain the Electrical System for Heavy Expanded Mobility Trucks	3
MOD 216	Maintain Vehicle Air Conditioning System	2

## Ideal Study Plan

### Recommended Sequence of Study

#### Level 5 Diploma in Electrical Technology - Vehicles

Year 1		
Semester 1		Credit Hours
GED 100	Develop English language skills	3
MAT 210	Apply fundamental concepts and skills in algebra, geometry, and trigonometry	4
HSE 100	Explore Health, Safety and Environment at Workplace	2
ECT 121	Explore electronics	4
MCT 200	Interpret and document technical information	2
ECT 225	Demonstrate AC and DC principles in electronic circuits	3
ECT 120	Explore combination logics	3
ECT 224	Terminate and connect low voltage electrical cables	3
<b>Credit Hours</b>		<b>24</b>
Semester 2		
ECT 122	Maintain electrical circuits and systems	3
ECT 222	Analyse Electrical Machines	4
MCT 111	Select instruments and sensors for measurement	3
MOD 114	Utilize Equipment to Maintain Vehicle Electrical Systems	1
ECT 123	Apply DC and AC machines in engineering	2
MOD 115	Maintain the Electrical System for Heavy Vehicles	4
MOD 116	Maintain the Glow plugs, Lighting and Transmission Systems for Heavy Vehicles	3
ECT 221	Create printed circuit boards	2
<b>Credit Hours</b>		<b>22</b>
Year 2		
Semester 3		
MOD 217	Maintain the Operating System for High Mobility Trucks	4

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MOD 218	Inspect the Lighting, Transmission and Auxiliary Systems for High Mobility Trucks	3
MCT 201	Apply engineering technology to real or simulated situations to produce technical solutions	4
ECT 101	Explore AC electrical circuits	4
ECT 223	Explore simulations of electrical circuits	2
ECT 124	Write programs using C++	3
MOD 219	Maintain the Operating System for Light Armored Vehicles	4
<b>Credit Hours</b>		<b>24</b>
<b>Semester 4</b>		
MOD 220	Maintain the Lighting and Auxiliary Systems for Light Armored Vehicles	3
MCT 230	Perform practical training and support in electromechanical based industries	10
ECT 220	Test and maintain electrical transformers	3
MOD 221	Maintain the Electrical System for Heavy Expanded Mobility Trucks	3
MOD 216	Maintain Vehicle Air Conditioning System	2
<b>Credit Hours</b>		<b>21</b>
<b>Total Credit Hours</b>		<b>91</b>