

**NATIONAL BOARD FOR TECHNICAL  
EDUCATION KADUNA**

**NATIONAL VOCATIONAL CERTIFICATE (NVC)**

**IN**

**MOTOR VEHICLE MECHANICS**

**CURRICULUM AND MODULE SPECIFICATIONS**

**2019**

**PLOT B, BIDA ROAD, P.M.B. 2239, KADUNA – NIGERIA  
NATIONAL VOCATIONAL CERTIFICATE IN  
MOTOR VEHICLE MECHANICS**

## **GENERAL INFORMATION**

### **GOAL:**

This programme is designed to produce skilled craftsmen with good knowledge of the working principles of motor vehicle and the techniques and safety practices involve in its maintenance.

### **OBJECTIVES:**

On completion of the programme, a graduate of NVC in motor vehicle mechanics should be able to:-

1. Identify various tools/equipment used in the repair of motor vehicle.
2. Identify the various units and component parts that make up a motor vehicle.
3. Dismantle and assemble parts with expertise
- 4 Carry out diagnostics by aural, visual and functional methods.
- 5 To carry out with expertise, repairs or replacement of faulty components.
6. To identify and procurement of genuine spare parts.
- 7 Carry out routine vehicle checks and basic scheduled servicing as recommended by the manufacturer.
- 8 To carry out performance test as applicable

### **ENTRY QUALIFICATIONS**

- a. Basic Education requirement (Post JSS) – i.e. candidate with requisite credits in Junior Secondary Certificate (JSC)
- b. Post –Secondary students who are unable to gain access to higher education or IELs, who may have less than the required five (5) credits.
- c. Mature candidate with experience

## **NATIONAL CERTIFICATION**

Trainees who successfully complete all the courses/modules specified in the curriculum table and pass the national examinations in the trade will be awarded the following certification:

PROGRAMME	CERTIFICATE
Motor vehicle mechanics	National Vocational Certificate
Assessments	Fail, Pass, Credit or Distinction

This programme is expected to be in the form of session-based training courses of not less than to (9) nine calendar months per session. The entire programme is made flexible into three Session Modules viz. NVC Part I, NVC Part II and NVCIII (Final).

## **ACCREDITATION**

The Certificate programme shall be accredited by the National Board for Technical Education before the candidates can be awarded the National Vocational Certificates (NVC). Details about the process of accrediting a programme for the award of the NVC can be obtained from:

*The Executive Secretary, National Board for Technical Education, Plot "B", Bida Road, P.M.B. 2239, Kaduna, Nigeria*

## **THE CURRICULUM STRUCTURE**

The curriculum of all NVC programmes consists of three (3) main components, viz:

- a. General education
- b. Trade theory, Trade practice and related studies which account for minimum of 60% of the total contact hours for the programme
- c. Supervised Industrial Attachment which accounts for 20% of the total contact hours for the programme shall be undertaken either at the middle or at the end of the session for each academic year.

**DURATION**

The three year programme comprises three (3) parts, each for one year (5 hours per day or 25 hours per week and 14 weeks per term)

Note: 2 weeks is for evaluation and registration

## CURRICULUM TABLE FOR NVC IN MOTOR VEHICLE MECHANICS

### PART 1

#### First Term NVC Motor vehicle mechanics Part I

<i>S/N</i>	<i>Course code</i>	<i>Course Title</i>	<i>Hrs/Week</i>			<i>Unit</i>
			<i>Theory</i>	<i>Practical</i>	<i>Total</i>	
1	CSK	Communications Skill I	2	0	2	
2	VMT	Numbers and Numeral	2	0	2	
3	CMVS1	Mechanical Science	2	1	3	
4	TD	Technical Drawing	0	3	3	
5	CMV 10	Tools Appreciation and Safety	2	6	8	
6	CMV 11	Service Station Procedure I	2	5	7	
	<b>TOTAL</b>				<b>25</b>	

See NVC general studies curriculum

Second Term NVC Motor vehicle mechanics Part I

<i>S/N</i>	<i>Course code</i>	<i>Course Title</i>	<i>Hrs/Week</i>			<i>Credit</i>
			<i>Theory</i>	<i>Practical</i>	<i>Total</i>	
1	EDP	Entrepreneurship I	2	0	2	
2	GMW	General Metal Work I	1	4	5	
3	CMV 12	Cooling and Lubrication Systems	1	4	5	
4	CMV 13	Introduction to Petrol Engine and Fuel Systems	1	2	3	
5	CMV 14	Introduction to Diesel Engine and Fuel Systems	1	2	3	
6	CMV 15	Service Station procedure II	2	5	7	
	<b>TOTAL</b>				<b>25</b>	

Third Term NVC Motor vehicle mechanics part 1

<b>CMV 16: INDUSTRIAL TRAINING – 3 MONTHS</b>
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**PART 11**

First Term NVC Motor vehicle mechanics part 11

			<i>Hrs/Week</i>			
<i>S/N</i>	<i>Course code</i>	<i>Course Title</i>	<i>Theory</i>	<i>Practical</i>	<i>Total</i>	<i>Credit</i>
1	ICT	Introduction to Computer	1	2	3	
2	CMVS II	Electrical Science	2	1	3	
3	CMV 17	Transmission and Clutches I	2	5	7	
4	CMV 18	Engine Faults Diagnosis I	1	3	4	
5	CMV 19	Breaking System	1	3	4	
6	CMV 20	Workshop Technology	1	3	4	
	<b>TOTAL</b>				<b>25</b>	

Second Term NVC Motor vehicle mechanics part II

<i>S/N</i>	<i>Course code</i>	<i>Course Title</i>	<i>Hrs/Week</i>			<i>Credit</i>
			<i>Theory</i>	<i>Practical</i>	<i>Total</i>	
1	CSK	Communications Skill II	2	0	2	
2	ICT	Computer Appreciation	1	2	3	
3	CMV 21	Workshop Administration	2	0	2	
4	CMV 22	Petrol Engine Maintenance	2	5	7	
5	CMV 23	Transmission and Clutches II	2	4	6	
6	CMV 24	Steering Systems	1	3	4	
	<b>TOTAL</b>				<b>24</b>	

Third Term NVC Motor vehicle mechanics part II

**CMV 25: INDUSTRIAL TRAINING – 3 MONTHS**

### PART III

First Term NVC Motor vehicle mechanics part III

<i>S/N</i>	<i>Course code</i>	<i>Course Title</i>	<i>Hrs/Week</i>			<i>Credit</i>
			<i>Theory</i>	<i>Practical</i>	<i>Total</i>	
1	EDP	Entrepreneurship II	2	0	2	
2	CMV 26	Diesel Engine Electronics	1	3	4	
3	CMV 27	Diesel Engine Maintenance	1	4	5	
4	CMV 28	Petrol Engine Electronics	1	4	5	
5	CMV 29	Engine Faults Diagnosis II	1	3	4	
6	CMV 30	Auto Electricity	1	4	5	
	<b>TOTAL</b>				<b>25</b>	

See NVC general studies curriculum (assessment on these courses shall be based on specifications stated therein)

Second Term NVC Motor vehicle mechanics part III

<i>S/N</i>	<i>Course code</i>	<i>Course Title</i>	<i>Hrs/Week</i>			<i>Credit</i>
			<i>Theory</i>	<i>Practical</i>	<i>Total</i>	
1	EDP	Entrepreneurship III	2	0	2	
2	GMW	General Metal Work II	2	4	6	
3	CMV 32	Car air conditioning	1	3	4	
4	CMV 33	Engine Repair and Overhaul	1	4	5	
5	CMV 34	Computerized Engine Diagnosis	1	3	4	
6	CMV 35	Wheels Alignment, Balancing, Chassis and Suspension System	1	3	4	
	<b>TOTAL</b>				<b>25</b>	

See NVC general studies curriculum

Third Term NVC Motor vehicle mechanics part III

<b>CMV 36: INDUSTRIAL TRAINING – 3 MONTHS</b>
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