

Model Curriculum
Helper-Two/Three-Wheeler Mechanic

Course/Job Role	Particulars of Duration (In Hours)	
Helper-Two/Three-Wheeler Mechanic	Total: 240 Hrs	2-3 hours per day
	Theory: 30 Hrs	
	Practical: 150 Hrs Employability Skills: 60 Hrs	

Minimum Educational qualification	5 th Pass
Minimum age	18 years

COURSE OBJECTIVES

After completion of the course trainee should be able to have knowledge and skills in following aspects of Two/Three wheelers.

1. Basic servicing technics of different automobiles.
2. Equipment and tools used for servicing and repairing.
3. Preventive care and maintenance as per manufacturer specifications
4. Type of mechanical faults and trouble shooting.
5. Types of electrical faults and trouble shooting.
6. Servicing and repairs of two/three-wheeler such as Moped, Scooter, Motorcycles and Electronics Bike including CNG, Diesel Driven, etc.
7. Two Strokes and Four Strokes Engine and their Functioning.
8. Life Enrichment Education.

COURSE STRUCTURE**Knowledge Domain**

1. Use of tools, machinery and safety equipment.
2. Identification of tools, sizes, names and their applications. Use and Maintenance of shop floor equipment.
3. General servicing – washing, Cleaning, Oiling Lubricating adjusting control cables polishing, greasing, etc.
4. Minor repair of control in units. Use and application of locking devices.
5. Adjusting brake paddle play dis-mantling, clearing, adjusting brake shoes for proper clearance, removing old lining on brake shoes. Trouble tracing, adjusting and testing brakes. Precautions to be observed while testing brakes.
6. Overhauling of front and rear and suspension system.
7. Servicing of fuel systems, cleaning of fuel tank, Fuel Filter, and Carburettor assembly.
8. Tracking Engine Circuits in the vehicles and locating the troubles in the circuits.
9. Servicing of batteries, general check-up and maintenance.
10. Cleaning of piston head, Spark plug, ignition points and servicing.
11. Practice in dismantling Two and Four Stroke Engine.
12. Practice in diagnosing various noises and faults in an engine and their rectification.
13. Practice in using different service equipment.

Skill Domain

1. Identifying different type of tools, their names, sizes, brands, standards, quality and their application.
2. Undertake servicing job as per manufacture specifications.
3. Inspect, Dis-mental, Repair and assembling brake system. Track fault and adjust brakes.
4. Overhaul the suspension system.
5. Overhaul the handle bar and controls.
6. Clean and service the fuel feed system.
7. Overhaul carburettor assembly.
8. Trace out the defect in the Ignition system and rectify the fault.
9. Maintenance, service, charge batteries and locate the defective starting circuit components.
10. Track auto electrical circuits and electrical components and undertake repair.
11. Overhaul the different types of clutches and rectify various faults.
12. Clean and De-carbonize engine and exhaust systems.
13. Recognized all the parts of the engine and overhaul the engine partially or completely.
14. Service two/three wheeler efficiently using different service equipment.

Trainers Qualification: Certificate course with minimum 2 years of experience in the relevant job role. He should have knowledge of equipment, tools, material, safety, health & hygiene. He may also be well versed with the employability skills etc.

MATERIAL AND TOOL REQUIREMENT

1. Pressure Gauge
2. Torque Wrench
3. Philip Screwdriver
4. Socket Wrenches
5. Bike Stand
6. Oil
7. Oil Catch Pan
8. Chain Breaker and Riveter
9. Grease
10. Pliers
11. Socket Wrench Set
12. Nylon and Wire Brush
13. Mechanic and Nitrile Gloves
14. Hex Key Set and Allen/ Hex Bit Sockets
15. Service Manual
16. Ring spanner
17. Tap and dies
18. Brazing kit
19. Hammers
20. Funnel

Helper-Two/Three-Wheeler Mechanic

National Occupational Standards

1. Introduction
2. Identification and roles of tools & equipment, safety and precautions.
3. Servicing, Repairing & Maintenance
4. Motor and body parts and its usage
5. Market Exposure
6. Employability Skills including Life Enrichment Education.

Course Curriculum and Content aligned with NOS

1. Introduction

Topic	Introduction to JSS Scheme and Helper-Two/Three-Wheeler Mechanic course
Content	<ul style="list-style-type: none">• Introduction of JSS Scheme• Introduction to the course Helper Two/Three-Wheeler Mechanic.• Understands the relevance of the course Helper Two/Three wheeler Mechanic. in income-generation
Methodology	<ul style="list-style-type: none">• Teaching cum demonstration sessions• Use of Audio-visual Materials.• Field visits.
Expected Learning Outcomes	<ul style="list-style-type: none">• Knows about the JSS scheme and skills of the course “Helper Two/Three Wheeler Mechanic.”• Understands the relevance of the course “Helper Two/Three-Wheeler Mechanic” in income generation
Total Hours	3 Hours

2. Identification and roles of tools & equipment and its safety and precautions.

Topic	Identification of roles of tools & equipment and its safety and precautions
Content	<ul style="list-style-type: none">• Tools, sizes, names and their applications.• Use of tools, machinery and safety equipment.
Methodology	<ul style="list-style-type: none">• Practice in using tools and equipment and machinery.• Operate shop floor equipment.• Adjusting the parts for proper functioning, cleaning and oiling.
Expected Learning Outcomes	<ul style="list-style-type: none">• Knows about the tools and measuring instruments and is able to use them properly• Operate workshop, floor equipment.• Adjusts the parts of proper functioning• Maintain tools, accessories and equipment properly.
Total Hours	27 Hours

3. Servicing & Repairing & Maintenance.

Content	<ul style="list-style-type: none">• Demonstration of general servicing.
Methodology	<ul style="list-style-type: none">• Demonstration of different vehicle washing, and cleaning, polishing.• Practice in adjusting control cables, lubricating, oiling, Polishing and greasing, checking of proper air pressure of wheels.• Requisite servicing procedure to be adopted in servicing lubrication, identify the points to be lubricated, Lubricants and types. Determining the duration of Service after every servicing.
Expected Learning Outcomes	<ul style="list-style-type: none">• Able to undertake servicing job as per manufacture specification.
Total Hours	84 Hours

4. Motor Parts and its Usage

Content	<ul style="list-style-type: none">• Method of achieving precision in two/three-wheeler mechanic.• Understand different parts of two/three-wheeler motor, their functioning and repair and servicing
Methodology	<ul style="list-style-type: none">• Discussion and identification of Two /three-wheeler parts and practice.
Expected Learning Outcomes	<ul style="list-style-type: none">• Demonstration on adjusting brake paddle play, dismantling, clearing, adjusting brake shoes for proper clearance. Removing of brake shoes, etc.• Understands and identifies clutch cable, brake cable, accelerator cable, e-hock and cable, gear cable, speedo meter cable, control switches.• Overhauling of front and rear and suspension systems.• Overhauling of steering (Handle bar) with controls.• Servicing of fuel systems.• Tracking Ignition circuits in the vehicles and locating the troubles in the circuits.• Servicing of batteries and top up proper level.
Total Hours	63 Hours

5. **Market Exposure (03 Hours):** A market exposure is intended towards providing an insight about two/three-wheeler service centre. The market exposure also intends towards probable employment opportunities in the local market.

Topic	Market Exposure
Content	Visit to local mechanical workshop/service centre or company showroom for visual survey of Service Centre and repair shop.
Methodology	Market survey/ Visit
Expected Learning Outcomes	Will Understand and acquaint himself/herself with the latest practice servicing and repairs.
Total Hours	3 Hours

6. Employability Skills including Life Enrichment Education.: 60 Hours

60 Hours of employability skills including life skills, Financial/Digital literacy, e-market places, maintain book of records, record keeping, inculcating national and social values is included in the course curriculum of Helper -Two/Three-Wheeler Mechanic. Employability Skills will enable the beneficiaries in setting up their own small ventures.