



Model Curriculum

QP Name: Automotive Paint Repair Assistant

QP Code: ASC/Q1407

QP Version: 2.0

NSQF Level: 3

Model Curriculum Version: 1.0

Automotive Skill Development Council
153 Gr Floor, Okhla Industrial Area, Phase III, Leela Building, New Delhi-110020

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Training Parameters

Sector	Automotive
Sub-Sector	Automotive Vehicle Service
Occupation	Technical Service & Repair
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7132.0300
Minimum Educational Qualification & Experience	8th Class
Pre-Requisite License or Training	NA
Minimum Job Entry Age	14 Years
Last Reviewed On	18/02/2021
Next Review Date	18/02/2026
NSQC Approval Date	27/05/2021
Version	2.0
Model Curriculum Creation Date	18/02/2021
Model Curriculum Valid Up to Date	18/02/2026
Model Curriculum Version	1.0
Minimum Duration of the Course	304 Hours, 0 Minutes
Maximum Duration of the Course	304 Hours, 0 Minutes

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Work effectively and efficiently as per schedules and timelines.
- Implement safety practices.
- Optimize the use of resources.
- Communicate effectively using interpersonal skills.
- Prepare vehicles for painting.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	08:00	00:00			08:00
Module 1: Introduction to the role of Automotive Paint Repair Assistant <i>Bridge Module</i>	08:00	0:00	-	-	08:00
ASC/N9801 - Organize Work and Resources (Service) NOS Version No. 1.0 NSQF Level 3	16:00	24:00	-	-	40:00
Module 2: Work effectively and efficiently	08:00	16:00	-	-	24:00
Module 3: Optimize resource utilization	08:00	08:00	-	-	16:00
ASC/N9802 – Interact Effectively with Colleagues, Customers and others NOS Version No. 1.0 NSQF Level 3	16:00	24:00	-	-	40:00
Module 4: Communicate effectively with others	16:00	24:00	-	-	40:00
ASC/N1416 – Assist in vehicle painting by preparing vehicle body and other surfaces NOS Version No. 2.0	60:00	156:00	-	-	216:00

NSQF Level- 3					
Module 5: Preparing vehicles for painting	60:00	156:00	-	-	216:00
Total Duration	100:00	204:00	-	-	304:00

Module Details

Module 1 – Introduction to the Role of an Automotive Paint Repair Assistant

Bridge Module

Terminal Outcomes:

- Discuss how to work as per the defined role and responsibilities of an Automotive Paint Repair Assistant.

Duration: <08:00>	Duration: <00:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the role and responsibilities of an automotive paint repair assistant • List the schedules and checklists pertaining to surface preparation activities • Explain about Automotive Industry in India, workshop structure and role and responsibilities of different people in the workshop • Elaborate standard operating procedures (SOPs) regarding receiving vehicles, opening job card, allocation of work, invoicing, vehicle delivery, handling complaints etc. • Describe how to work as per organisational and professional code of ethics and standards of practice • Outline the safety, health and environment policies to be followed for the automotive sector • Discuss the standard operating procedures (SOP) recommended by OEM w.r.t. surface preparation job in the vehicle 	
Classroom Aids:	
Laptop, white board, marker, projector	
Tools, Equipment and Other Requirements	

Module 2 - Work Effectively and Efficiently

Mapped to NOS ASC/N9801 v1.0

Terminal Outcomes:

- Employ appropriate ways to maintain a safe and secure working environment.
- Perform work as per the quality standards.

Duration: <08:00>	Duration: <16:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Outline the organizational structure to be followed to report about health, safety and security breaches to the concerned authorities. • List the potential workplace related risks and hazards, their causes and preventions. • State the methods to keep the work area clean and tidy. • Discuss how to complete the given work within the stipulated time period. • Explain how to maintain a proper balance between team and individual goals. • Discuss epidemics and pandemics and their impact on society at large. • Discuss the significance of conforming to basic hygiene practices such as washing hands, using alcohol-based hand sanitizers. • Discuss the use of proper PPE for maintaining health and hygiene at workplace and the process of wearing/discarding them. • Define self-quarantine or self-isolation. • Discuss the importance of identifying and reporting symptoms to the concerned authorities. • Explain the significance of following prescribed rules and guidelines during an epidemic or a pandemic. • Discuss organizational hygiene and sanitation guidelines and ways of reporting breaches/gaps if any. • Discuss the ways of dealing with stress and anxiety during an epidemic or a pandemic. 	<ul style="list-style-type: none"> • Perform routine cleaning of tools, equipment and machines. • Employ various techniques for checking malfunctions in the equipment as per Standard Operating Procedure (SOP). • Apply basic housekeeping practices to ensure that the work area is clean, such as mopping spills and leaks, cleaning grease stains etc. • Demonstrate how to evacuate the workplace in case of an emergency. • Show how to sanitize and disinfect one's work area regularly. • Demonstrate the correct way of washing hands using soap and water. • Demonstrate the correct way of sanitizing hands using alcohol-based hand rubs. • Display the correct way of wearing and removing PPE such as face masks, hand gloves, face shields, PPE suits, etc. • Demonstrate appropriate social and behavioural etiquette (greeting and meeting people, spitting/coughing/sneezing, etc.). • Prepare a list of relevant hotline/emergency numbers.
Classroom Aids:	
White board/black board marker/chalk, duster, computer or Laptop attached to LCD projector	
Tools, Equipment and Other Requirements	

Personal Protection Equipment: safety glasses, head protection, rubber gloves, safety footwear, warning signs and tapes, fire extinguisher and first aid kit
Sanitization kit, disinfectants, alcohol-based sanitizers, different types of face masks, shields, suits, etc.

Module 3 - Optimize Resource Utilization

Mapped to NOS ASC/N9801 v1.0

Terminal Outcomes:

- Use the resources efficiently.
- Apply conservation practices at the workplace.

Duration: <08:00>	Duration: <08:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> ● Explain the ways to optimize usage of resources. ● Discuss various methods of waste management and its disposal. ● List the different categories of waste for the purpose of segregation ● Differentiate between recyclable and non-recyclable waste ● State the importance of using appropriate colour dustbins for different types of waste. ● Discuss the common sources of pollution and ways to minimize it. 	<ul style="list-style-type: none"> ● Perform basic checks to identify any spills and leaks and that need to be plugged /stopped. ● Demonstrate different disposal techniques depending upon different types of waste. ● Employ different ways to check if equipment/machines are functioning as per requirements and report malfunctioning, if observed. ● Employ ways for efficient utilization of material and water ● Use energy efficient electrical appliances and devices to ensure energy conservation
Classroom Aids:	
White board/black board marker/chalk, duster, computer or Laptop attached to LCD projector	
Tools, Equipment and Other Requirements	
Different type of waste bins to collect and segregate waste for disposal	

Module 4 - Communicate Effectively and Efficiently

Mapped to NOS ASC/N9802 v1.0

Terminal Outcomes:

- Use effective communication and interpersonal skills.
- Apply sensitivity while interacting with different genders and people with disabilities.

Duration: <16:00>	Duration: <24:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> ● Explain the organizational structure for communicating with colleagues, seniors and others. ● Discuss the ways to adjust the communication styles to reflect sensitivity towards gender and persons with disability (PwD). ● Explain the importance of respecting personal space of colleagues and customers. ● State the procedure to receive work instructions and report problems to the supervisor. ● List the various organizational policies and procedures to be followed at the workplace. ● Describe different ways to rectify commonly occurring errors. ● Explain the importance of complying with the instructions/guidelines and procedures while performing tasks related to the job specifications. ● Discuss the importance of PwD and gender sensitization. 	<ul style="list-style-type: none"> ● Employ different means of communication depending upon the requirement while interacting with others. ● Demonstrate using new ways to maintain good relationships with colleagues and supervisor. ● Prepare a sample report to send the work status to the supervisor. ● Demonstrate how to communicate with different genders and persons with disability (PwD) in a sensitive manner.
Classroom Aids:	
White board/black board marker/chalk, duster, computer or Laptop attached to LCD projector	
Tools, Equipment and Other Requirements	
Sample of escalation matrix, organisation structure.	

Module 5 – Preparing vehicle/body panels for painting

Mapped to NOS ASC/N1416 v2.0

Terminal Outcomes:

- Perform the steps to prepare for pre-paint, paint and post surface preparation activities

Duration: <60:00>	Duration: <156:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • discuss the importance of reviewing the job card to understand the scope of work • Explain various types of body panels and their specifications. • Discuss the process of collecting tools/equipment, consumables, new body panels, spare parts, etc. required for the job. • Explain the organization structure for reporting malfunctions or any discrepancies to the concerned person • List the precautions to be taken as per the safety norms to avoid damage to the vehicle and its components while carrying out pre-painting work. • Discuss techniques and consumables/cleaning material used to clean the surface at different stages of surface preparation. • Explain the different techniques of masking the adjacent surface and panels. • Identify the types of masking tapes and paper used to prevent scratches/overspray. • List various abrasive and sanding tools used to remove paint. • Describe the different techniques of sanding and using the sand paper w.r.t. particular surface • Summarise the process of mixing and applying body fillers/putty/primer as per OEM. • Outline the various methods to ensure surface is dust/contamination free until job completion. 	<ul style="list-style-type: none"> • Perform steps to place the vehicle on an appropriate platform as per job. • Demonstrate how to inspect the functioning of tools/equipment and their calibration status • Perform inspection of body panels of the vehicle • Show how to clean the surface of the vehicle using different techniques as per OEM SOP. • Employ suitable techniques to mask the body parts which are not to be painted with masking tapes and paper • Demonstrate the steps for mixing and application of body filler/putty as per OEM • Apply standard operating procedure to sand the body filler, using dry guide coat between sanding steps to highlight imperfections in repair area • Perform steps to apply primer using spray gun and cure as per OEM • Demonstrate how to sand the primer using suitable abrasive and tools, using dry guide coat between sanding steps • Show how to inspect the surface repair work and report to supervisor/service advisor in case of any discrepancies. • Employ appropriate waste-disposal techniques for disposing waste

<ul style="list-style-type: none"> • Discuss the standard operating procedures to sand the body filler and primer in between sanding steps. • List the activities to be performed to confirm the completion of assigned task. • Discuss the organizational policies for disposing off materials like old abrasive paper, empty cans, etc. • Elaborate standard operating procedures (SOPs) regarding cleaning, masking, sanding, putty and primer application as per OEM • List manufacturer's specification for consumables, cleaning material and body parts • Identify various consumables and other materials using OEM nomenclature to be used for the job • Discuss the different painting processes and rust prevention techniques • Explain the functioning of various painting tools/equipment, materials and their usage, storage and maintenance • Discuss various personal protective equipment required for the job as per organisation/OEM guidelines with their usage 	<p>materials like old abrasive papers, empty cans, etc.</p> <ul style="list-style-type: none"> • Prepare the report/record required for the surface preparation job. • Show how to use various PPE and how to prepare work area by cleaning and placing tools/equipment in an organised manner. • Demonstrate how to clean the tools before returning them to the concerned authorities after completion of the job
<p>Classroom Aids:</p>	
<p>Laptop, white board, marker, projector</p>	
<p>Tools, Equipment and Other Requirements</p>	
<p>Vehicle, various body parts, tools and equipment, material, Masking tapes, paints, cleaners, degreasers, primers, brushes, cleaning tools, auto-spray-painter, putty, sanding tools, polishing and finishing tools</p>	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI	Mechanic Motor Vehicle	2	Four Wheeler Service	1	Four Wheeler Service	NA
ITI	Mechanic Motor Vehicle	3	Four Wheeler Service	0	NA	NA
Certificate-NSQF Level 5	Four Wheeler Lead Technician	2	Four Wheeler Service	1	Four Wheeler Service	NA
Diploma	Automobile/Mechanical Engineering	1	Four Wheeler Service	1	Four Wheeler Service	NA
Diploma	Automobile/Mechanical Engineering	2	Four Wheeler Service	0	NA	NA

Trainer Certification	
Domain Certification	Platform Certification
“Automotive Paint Repair Assistant”, QP: “ASC/Q1407”, minimum accepted score is 80%	“Trainer”, “MEP/Q2601 v1.0” with scoring of minimum 80%

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI	Mechanic Motor Vehicle	3	Four Wheeler Service	1	Four Wheeler Service	NA
ITI	Mechanic Motor Vehicle	4	Four Wheeler Service	0	NA	NA
Certificate-NSQF Level 5	Four Wheeler Lead Technician	3	Four Wheeler Service	1	Four Wheeler Service	NA
Diploma	Automobile/Mechanical Engineering	2	Four Wheeler Service	1	Four Wheeler Service	NA
Diploma	Automobile/Mechanical Engineering	3	Four Wheeler Service	0	NA	NA

Assessor Certification	
Domain Certification	Platform Certification
“Automotive Paint Repair Technician”, QP: “ASC/Q1407”, minimum accepted score is 80%	“Assessor”, “MEP/Q2701 v1.0” with scoring of minimum 80%

Assessment Strategy

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & records

2. Testing Environment – The assessor should:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
- If the batch size is more than 30, then there should be 2 Assessors.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

3. Assessment Quality Assurance levels/Framework:

- Question papers are created by the Subject Matter Experts (SME)
- Question papers created by the SME are verified by the other subject Matter Experts
- Questions are mapped with NOS and PC
- Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
- Assessor must be ToA certified & trainer must be ToT Certified
- Assessment agency must follow the assessment guidelines to conduct the assessment

4. Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location
- Centre photographs with signboards and scheme specific branding
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

5. Method of verification or validation:

- Surprise visit to the assessment location
- Random audit of the batch
- Random audit of any candidate

6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored
- Soft copies of the documents & photographs of the assessment are uploaded/accessed from Cloud Storage
- Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
PwD	Persons with Disability
OEM	Original Equipment Manufacturer