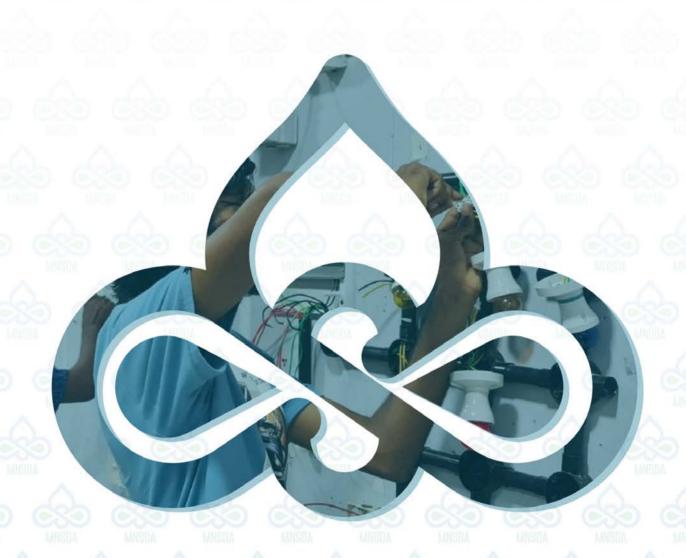


Maldives National Skills Development Authority



# National Competency Standard for Automotive Maintenance

Standard Code: TRA-03L3-V3-24

#### **FOREWORD**

The pivotal role of the Maldives National Skills Development Authority (MNSDA) in meticulously implementing and expanding Technical and Vocational Education & Training (TVET) exemplifies the steadfast commitment of the Maldives to build a skilled and resilient workforce. This commitment is evident from the strategic formulation of National Standards and the establishment of a comprehensive framework for training and certification.

Under the Higher Education and Training Act 7/2021, the MNSDA assumes an instrumental role, reflecting the government's unwavering dedication to streamlining TVET policies and procedures. This includes the establishment of a robust system for accrediting and registering both Institution Based Training (IBT) and Employer Based Training (EBT) providers. The MNSDA's active involvement in conducting the National Apprenticeship Program (NAP), National Trade Testing and Certification (NTTC), and the issuance of National Certificates reflects a comprehensive approach to ensure elevated quality standards and competency within the workforce.

The National Competency Standards (NCS) revised through the Maldives Enhancing Employability and Resilience of Youth (MEERY) project accentuates the commitment to updating and sustaining contemporary skill sets aligned precisely with industry demands. Deliberate efforts to revise existing NCS, coupled with the development of curriculum, teaching materials, resource books, and logbooks, attest to our dedication to ensuring the ongoing relevance and currency of the TVET system in the Maldives.

The active engagement of Technical Panels and Employment Sector Councils in the NCS development and approval process, coupled with alignment to the Maldives National Qualification Framework (MNQF) and accreditation by the Maldives Qualifications Authority (MQA), certifies that the TVET system not only remains highly responsive but also ensures the quality standards demanded by industries. This approach enables the system to effectively meet the diverse needs of industries and adapt to the evolving economic landscape.

The collaborative development of the National Certificate III in Automotive Maintenance by the MNSDA, MEERY, and the Maldives Institute of Technology exemplifies the practical implementation of TVET initiatives. This training package represents a critical stride towards addressing the requisite skills while fostering opportunities to integrate sustainable economic development within the TVET framework.

Dr. Zahra Mohamed

Chief Executive Officer

Maldives National Skills Development Authority

	EMPLOYMENT SECTOR COUNCILS					
#	Name	Designation	Organisation			
01	Ahmed Shameem	Director General	Ministry of Transport and Civil Aviation			
02	Mohamed Jamshad	Colonel	Maldives National Defence Force			
03	Ahmed Shujau	Chief Inspector of Police	Maldives Police Services			
04	Aishath Neesha Khaleel	General Manager	Maldives Ports Limited			
05	Mohamed Zaid	Head of Center for Maritime Studies	MNU / Maritime Center			
06	Asiyath Haneef	Training Manager at Maldivian	Maldivian			
07	Ahmed Shahid	Maritime Expert	-			
08	Ismail Fariq	Chief Sales Officer	Maldives Transport and Construction Company			
09	Fathimath Haula	Programme Officer	Maldives National Skills Development Authority			

#### National Occupational Standard has been endorsed by:

Aishath Neesha Khaleel

Chair person

Transport Sector Council

Maldives National Skills Development Authority

Umar Zahir Office Building, 5th Floor,

 $Orchid Maa\ Hingun, Hulhumale', Republic\ of\ Maldives.$ 

Date of Endorsement:25.10.2023

	TECHNICAL SUPPORT				
#	Name	Designation	Organisation		
01					
02					

	TECHNICAL PANEL MEMBERS				
#	Name	Designation	Organisation		
01	Ismail Zameel	Associate Engineer	Maldives Airports Company Limited		
02	Ahmed Abdul Rahman	Subinspector of Police	Maldives Police Services		
03	Mohamed Nazim	Subinspectpor of police	Maldives Police Services		
04	Surahabeel Waheed	Deputy Chief Technical Officer	Maldives Ports Limited		
05	Hussain Nazeer	Director	Ministry of Transport and Civil Aviation		

VERSION	DEVELOPER	DATE	STANDARD CODE
V3	Maldives Institute of Technology	28.09.2023	TRA-03L3-V3-24

#### Standard Review Process

To begin with Automotive Maintenance occupation competencies were profiled through study of the occupations across the Maldivian workplaces aligned to the principles of "Functional Analysis", a methodology used for reviewing Competency Standards. Referred occupational profiling process compared existing competency units incorporated within the National Competency Standard of Level III in Automotive Maintenance program.

Draft Review of the occupational standard is then compiled and submitted to the Technical Panel (TP) organised by the Maldives National Skills Development Authority (MNSDA). The Draft Standard is then edited based on comments from TP members under the direct observation of MNSDA. With series of reviewing and editings, TP approved standard is then tabled at Employment Sector Council (ESC) meeting for endorsement.

All the Standards of MNSDA are endorsed from the ESC before being published on its website.

#### Description of "Automotive Maintenance"

This program is specifically designed to provide individuals with fundamental competencies related to automotive maintenance. Participants will develop hands-on expertise, mastering the key skills and practices essential for ensuring optimal performance and longevity of vehicles.

This certification serves as a solid foundation for those entering the automotive maintenance field, emphasising practical skills and knowledge essential for addressing the unique challenges of vehicle upkeep

## Recommended changes to the existing National Certificate III in Automotive Maintenance Standard

Following are the changes recommended by the selected Technical Panel and Employment Sector Council of MNSDA for the National Certificate III in Automotive Maintenance Standard.

- 1. Strengthen soft skills and recommended to include common modules used in the current Competency Standards of MNSDA
- 2. Seven new units were incorporated to align with current industry requirements.

## Job opportunities upon completion of "National Certificate III in Automotive Maintenance"

Upon successful completion of the National certificate III in Automotive Maintenance, students can work in the following jobs.

- 1. Automotive Technician
- 2. Automotive Mechanic

### **KEY FOR CODING**

## **Coding Competency Standards and Related Materials**

DESCRIPTION	REPRESENTED BY
	Construction Sector (CON)
	Fisheries and Agriculture (FNA)
	Information, Communication and Technology (ICT)
Industry Sector as per ESC (Three letters)	Transport Sector (TRN)
	Tourism Sector(TOU)
	Social Sector (SOC)
	Foundation (FOU)
Standard Number - Occupation with in an industry sector	Two digits 01-99
Common Competency	CM
Core Competency	CC
Unit Number - Occupation with in an Standard	Three digits 01-99
MNQF level of qualification	L1, L2, L3, L4 etc.
Version Number	V1, V2 etc.
Separator	-
Voor of Last Pavious of standard qualification	Two digits responding to the year of
Year of Last Review of standard, qualification	last review, example 23 for the year 2023
Qualification Code	Refers to Standard code in cover page

#### 1. Endorsement Application for Qualification 01

#### 2. NATIONAL CERTIFICATE III IN AUTOMOTIVE MAINTENANCE

3. Qualification code: TRA-03L3-V3-24 Total Number of Credits: 90

#### 4. Purpose of the qualification

The holders of the qualification will be competent to work in the Automotive Industry as automotive technicians. This qualification will prepare students for entry-level workplace tasks and ensure they acquire the knowledge and skills required for the role of "Automotive Technician" within the local automotive maintenance sector. The competency units are carefully mapped to fulfil the specific requirements of the "Automotive Technician" occupation, making graduates well-equipped to perform maintenance and repair tasks on various vehicles.

#### 5. Regulations for the qualification

National Certificate III in Automotive Maintenance will be awarded to those who are in units 1+2+3+4+5+6+7+8+9 +10+11+12+13+14+15+ 16+17+18+19+20+21+22+23

#### 6. Schedule of Units

Unit No.	Unit Title	Code				
Common	Common Competencies					
01	Apply occupational health and safety requirements	TRA-01-CM01-V3-24				
02	Apply work ethics and optimise professionalism	TRA-01-CM02-V3-24				
03	Practice effective workplace communication	TRA-01-CM03-V3-24				
04	Provide effective customer care	TRA-01-CM04-V3-24				
05	Perform computer operations	TRA-01-CM05-V3-24				
06	Provide first aid	TRA-02-CM02-V2-24				
07	Respond to fire	TRA-02-CM03-V2-24				
Core Competencies						
08	Handle and maintenance of workplace tools and equipment	TRA-03-CC01-V3-24				
09	Undertake inspection and servicing engines	TRA-03-CC02-V3-24				
10	Undertake inspection and servicing cooling systems	TRA-03-CC03-V2-24				
11	Service automotive fuel systems and emission system	TRA-03-CC04-V3-24				
12	Service ignition system components	TRA-03-CC05-V3-24				
13	Maintain and repair basic automobile electrical and electronic systems	TRA-03-CC06-V3-24				
14	Diagnose and repair charging systems	TRA-03-CC07-V3-24				
15	Diagnose and repair starting systems	TRA-03-CC08-V3-24				
16	Inspect and service steering systems components	TRA-03-CC09-V3-24				

17	Inspect and service manual and a	TRA-03-CC10-V3-24	
18	Inspect and service braking syste	em components	TRA-03-CC11-V3-24
19	Service final drive assembly com	nponents	TRA-03-CC12-V3-24
20	Diagnose and repair light vehicle	e suspension systems	TRA-03-CC13-V3-24
21	Inspect and service air-conditioning systems of light vehicles		TRA-03-CC14-V3-24
22	Maintain wheels and tyres		TRA-03-CC15-V3-24
23	Carry out auto detailing		TRA-03-CC16-V3-24
7. Accreditation requirements		The training provider should have a workshop or similar training facility and 120 hours of industrial training to provide the trainees the hands-on experience related to this qualification	
8. Recommended sequencing of units		As appearing under the section 06	

### Unit Details

Unit No.	Unit Title	Code	Level	No. of credits	Credit hours	Contact hours
1	Apply occupational health and safety requirements	TRA-01-CM01-V3-24	III	04	40	20
2	Apply work ethics and optimise professionalism	TRA-01-CM02-V3-24	III	03	30	15
3	Practice effective workplace communication	TRA-01-CM03-V3-24	III	03	30	15
4	Provide effective customer care	TRA-01-CM04-V3-24	III	05	50	25
5	Perform computer operations	TRA-01-CM05-V3-24	III	03	30	15
6	Provide first aid	TRA-02-CM02-V2-24	III	05	50	25
7	Respond to fire	TRA-02-CM03-V2-24	III	03	30	15
8	Handle and maintenance of workplace tools and equipment	TRA-03-CC01-V3-24	III	04	40	20
9	Undertake inspection and servicing engines	TRA-03-CC02-V3-24	III	05	50	25
10	Undertake inspection and servicing cooling systems	TRA-03-CC03-V2-24	III	04	40	20
11	Service automotive fuel systems and emission system	TRA-03-CC04-V3-24	III	04	40	20
12	Service ignition system components	TRA-03-CC05-V3-24	III	03	30	15
13	Maintain and repair basic automobile electrical and electronic systems	TRA-03-CC06-V3-24	III	06	60	30
14	Diagnose and repair charging systems	TRA-03-CC07-V3-24	III	04	40	20
15	Diagnose and repair starting systems	TRA-03-CC08-V3-24	III	04	40	20
16	Inspect and service steering systems components	TRA-03-CC09-V3-24	III	03	30	15
17	Inspect and service manual and automatic transmissions	TRA-03-CC10-V3-24	III	05	50	25
18	Inspect and service braking system components	TRA-03-CC11-V3-24	III	05	50	25
19	Service final drive assembly components	TRA-03-CC12-V3-24	III	03	30	15
20	Diagnose and repair light vehicle suspension systems	TRA-03-CC13-V3-24	III	04	40	20

21	Inspect and service air-conditioning systems of light vehicles	TRA-03-CC14-V3-24	III	03	30	15
22	Maintain wheels and tyres	TRA-03-CC15-V3-24	III	04	40	20
23	Carry out auto detailing	TRA-03-CC16-V3-24	III	03	30	15
Total			90	900	450	

## **Packaging of National Qualifications:**

National certificate III in Automotive Maintenance will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10+11+12+13+14+15+16+17+18+19+20+21+22+23

Qualification Code: TRA-03L3-V3-24

#### COMPETENCY BASED ASSESSMENT

The final assessment of the National Competency-Based Programmes conducted by the Maldives National Skills Development Authority (MNSDA) is a competency-based assessment.

The Competency-Based Assessment ensures that the students' performance meets the requirements specified in the National Competency Standards (NCS). This assessment approach is designed to verify that graduates are job-ready and meet established occupational competency requirements within their respective fields.

#### **Eligibility for Final Assessment**

To be eligible for the final Competency-Based Assessment, students must fulfil the following conditions:

- achieve a **minimum of 80%** attendance
- deemed competent in each of the units of the programme in the pre-assessment

#### **Competency-Based Assessment Process**

Upon submission of the Pre-assessment report by the training provider, MNSDA will check for all the necessary supporting documents and conduct Competency-Based Assessment through a National Assessor registered with MNSDA. It is important to note that any trainer involved in the training process is **not permitted** to conduct the assessment to maintain impartiality and integrity of the process.

The final Competency-Based Assessment conducted by MNSDA includes both:

- **Theory**: Evaluating students' knowledge and understanding of key theoretical aspects of the competency.
- **Practical:** Assessing hands-on skills and application of knowledge in real-world or simulated environments.

Once the assessment is completed, the National Assessor will send the Competency-Based Assessment Report to MNSDA.

#### **Competency Status Requirement**

For certification to be granted, the student must be officially declared "Competent" in each of the units of the programme by the National Assessor.

#### Conclusion

Competency-Based Assessment is a critical component in ensuring the quality and credibility of technical and vocational skills-based training. By adhering to the outlined procedure, MNSDA upholds the standards required to certify students who are fully prepared to meet industry demands.