



Maldives National Skills Development Authority



# National Competency Standard for Bar Bending

Standard Code: CON-05L3-V2-24

Qualification Name: National Certificate III in Bar Bending

## 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 Bar Bending 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 Thalhath	Director General	Ministry of Construction and Infrastructure
02	Zeeniya Ahmed Hameed	Permanenet Secretary	Minister of Housing, Land and Urban Development
03	Adnan Haleem (Chair)	Secretary General	Maldives National Association of Construction Industry
04	Mohamed Rasheed	Director	Housing Development Corporation
05	Mohamed Waheed	Lecturer	Maldives Polytechnic
06	Hussain Shiyam	Civil Engineer	Civil Engineers Association
07	Ibrahim Shareef Hassan	Training Expert	Industry Expert
08	Mohamed Yoosuf	Professional Member	Architects Association of Maldives
09	Shakeeba Ali	Director General	Maldives National Skills Development Authority
National Occupational Standard has been endorsed by:			
 Adnan Haleem Chairperson Construction Sector Council			
Maldives National Skills Development Authority Umar Zahir Office Building, 5th Floor, Orchid Ma higun, HulhuMale', Republic of Maldives.			
Date of Endorsement: 26-06-2024		Date of Revision: 26-06-2024	

TECHNICAL SUPPORT			
#	Name	Designation	Organisation
01			
02			

TECHNICAL PANEL MEMBERS			
#	Name	Designation	Organisation
01	Abdulla Abdul Azeez	Project Coordinator Lectuer	Ministry of Gender Maldives Institute of Technology
02	Mohamed Ivan Latheef	Lecturer	Freelance
03	Abdul Noor Hassan	Assistant Director	Housing development Cooperation
04	Hoodhu Abdul Rahman	Senior Carpenter	Maldives Airports Company

VERSION	DEVELOPER	DATE	STANDARD CODE
V2	Maldives Institute of Technology		CON-05L3-V2-24

## Standard Review Process

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To begin with Bar Bending 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 Bar Bending 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 “Bar Bending”

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The National Certificate III in Bar Bending is a designed program designed to impart foundational skills and knowledge in the specialised field of bar bending. This course is intricately structured to provide individuals with essential competencies required for proficient bar bending techniques.

The certification serves as an entry point for individuals entering the construction industry, offering a solid foundation in the fundamental skills required for success in bar bending.

## Recommended changes to the existing National Certificate III in Bar Bending Standard

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The changes proposed by the Technical Panel (TP) for the National Certificate III in Bar Bending Standard aim to synchronise the curriculum with contemporary industry benchmarks. These revisions are intended to ensure that the program aligns seamlessly with current standards and practices prevalent within the cake decoration industry.

## Job opportunities upon completion of “National Certificate III in Bar Bending”

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

1. *Bar Bender*

## KEY FOR CODING

### Coding Competency Standards and Related Materials

DESCRIPTION	REPRESENTED BY
Industry Sector as per ESC (Three letters)	Construction Sector (CON) Fisheries and Bar Bending (FNA) Information, Communication and Technology (ICT) 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	-
Year of Last Review of standard, qualification	Two digits responding to the year of 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 BAR BENDING		
<b>3. Qualification code: CON-05L3-V2-24</b>		<b>Total Number of Credits: 55</b>
<b>4. Purpose of the qualification</b> This qualification equip individuals with the necessary knowledge and skills to excel in the field of bar bending. The qualification aims to produce competent bar benders who can contribute effectively to the quality and integrity of construction projects, ensuring structural strength and durability.		
<b>5. Regulations for the qualification</b>		National Certificate III in Bar Bending will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10+11+12
<b>6. Schedule of Units</b>		
Unit No.	Unit Title	Code
<b>Common Competencies</b>		
01	Apply occupational health and safety requirements	CON-01-CM01-V2-24
02	Apply work ethics and optimise professionalism	CON-01-CM02-V2-24
03	Practice effective workplace communication	CON-01-CM03-V2-24
04	Perform computer operations	CON-01-CM05-V2-24
05	Respond to emergency situations	CON-05-CM01-V2-24
<b>Core Competencies</b>		
06	Read and interpret plans and specifications	CON-05-CC01-V2-24
07	Handle and maintenance of workplace tools and equipment	CON-05-CC02-V2-24
08	Select material required for reinforcement	CON-05-CC03-V2-24
09	Cut steel bars to measurement	CON-05-CC04-V2-24
10	Bend steel bars to required shapes and measurements	CON-05-CC05-V2-24
11	Produce pre-fabricated reinforcement cages	CON-05-CC06-V2-24
12	Lay reinforcement in-situ	CON-05-CC07-V2-24
<b>7. Accreditation requirements</b>		The training provider should have made arrangements to ensure students are provided with adequate theory and practicals for them to develop all the required knowledge and skills stipulated in the National Competency Standard.
<b>8. Recommended sequencing of units</b>		As appearing under the section 06

## Unit Details

Unit No.	Unit Title	Code	Level	No. of credits	Credit hours	Contact hours
01	Apply occupational health and safety requirements	CON-01-CM01-V2-24	III	04	40	20
02	Apply work ethics and optimise professionalism	CON-01-CM02-V2-24	III	03	30	15
03	Practice effective workplace communication	CON-01-CM03-V2-24	III	03	30	15
04	Perform computer operations	CON-01-CM05-V2-24	III	03	30	15
05	Respond to emergency situations	CON-05-CM01-V2-24	III	05	50	25
06	Read and interpret plans and specifications	CON-05-CC01-V2-24	III	03	30	15
07	Handle and maintenance of workplace tools and equipment	CON-05-CC02-V2-24	III	06	60	30
08	Select material required for reinforcement	CON-05-CC03-V2-24	III	04	40	20
09	Cut steel bars to measurement	CON-05-CC04-V2-24	III	03	30	15
10	Bend steel bars to required shapes and measurements	CON-05-CC05-V2-24	III	07	70	35
11	Produce pre-fabricated reinforcement cages	CON-05-CC06-V2-24	III	06	60	30
12	Lay reinforcement in-situ	CON-05-CC07-V2-24	III	08	80	40
Total				55	550	275

### Packaging of National Qualifications:

National certificate III in Bar Bending 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

Qualification Code: CON-05L3-V2-24



## 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.