



Maldives National Skills Development Authority



National Competency Standard for Fibreglass Boat Building

Standard Code: CON-03L5-V1-24

Qualification Name: National Diploma in Fibreglass Boat Building

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 Diploma in Fibreglass Boat Building 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	Permanent Secretary	Minister of Housing, Land and Urban Development
03	Adnan Haleem	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	-
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

Chair person

Construction Sector Council

Maldives National Skills Development Authority

Umar Zahir Office Building, 5th Floor,

OrchidMaa Hingun, Hulhumale', Republic of Maldives.

Date of Endorsement: 07.10.2024

TECHNICAL SUPPORT

#	Name	Designation	Organisation
01			
02			

TECHNICAL PANEL MEMBERS			
#	Name	Designation	Organisation
01	Ahmed Shifaz	Director	Ministry of Fisheries and Agriculture
02	Moahmed Yoosuf	Lectuer	-
03	Abdulla Faisal	Maritime Instructor	Maldives National University
04	Maizaan Umar manik	Managing Director	Precision Marine
05	Ali Hassan	Lecturer	Maritime Institute

VERSION	DEVELOPER	DATE	STANDARD CODE
V1	Maldives Institute of Technology	01-09-2024	CON-03L5-V1-24

Standard Development Process

The development of the “National Diploma in Fibreglass Boat Building” Standard involved a comprehensive study of Fibreglass Boat Building occupations in Maldivian workplaces, with a focus on boat building personnel and enterprises. Job descriptions and international occupational trends were analysed to draft an initial Occupational Standard. This draft will undergo further refinement through a Technical Panel (TP) from Maldivian workplaces, ensuring incorporation of competencies and edits. The TP will provide technical input, suggesting changes to the standard, until a final draft is agreed upon. The approved Final Draft will then be submitted to the Construction Employment Sector Council for endorsement and validation. A brief report detailing the compilation process will accompany the Standard for the Council's review, and any recommended changes will be addressed before final endorsement.

With the endorsement from the Construction Employment Sector Council, the finalised National Occupational Standard for Fibreglass Boat Building will be submitted to the Maldives Qualification Authority (MQA) for final approval. Upon receiving MQA approval, the standard will be officially published on the Maldives National Skills Development Authority (MNSDA) website. This publication will enable training providers in the Maldives to utilise the standard for delivering the Fibreglass Boat Building program, ensuring its widespread implementation across the country.

Description of “Fibreglass Boat Building”

National Diploma in Fibreglass Boat Building is designed to provide individuals with competencies necessary for mastering the art of constructing fibreglass boats. This comprehensive program offers a deep dive into techniques for boat construction and restoration, ensuring participants gain expertise in every aspect of the boat-building process.

Graduates of this program will emerge prepared for fulfilling careers in the maritime industry, equipped with the specialised expertise needed to excel in fibreglass boat construction.

Proposed Qualification Titles

Following are the recommended titles by the selected internal expert team of MIT for the National Diploma in Fibreglass Boat Building

1. Nil-

Job opportunities upon completion of “National Diploma in Fibreglass Boat Building”

Upon successful completion of the National Diploma in Fibreglass Boat Building, students can work in the following jobs.

1. *Fibreglass Boat Builder*
2. *Fibreglass boat building supervisors*
3. *Master Carpenter for Fibreglass Boat Building*

KEY FOR CODING

Coding Competency Standards and Related Materials

DESCRIPTION	REPRESENTED BY
Industry Sector as per ESC (Three letters)	Construction Sector (CON) Fisheries and Agriculture (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 Sandard code in cover page

1. Endorsement Application for Qualification 01		
2. NATIONAL DIPLOMA IN FIBREGLASS BOAT BUILDING		
3. Qualification code: CON-03L5-V1-24		Total Number of Credits: 166
4. Purpose of the qualification National Diploma in Fibreglass Boat Building aims to equip individuals with advanced skills and knowledge essential for the construction and maintenance of marine vessels using fibreglass. This comprehensive program provides specialised training in various aspects of fibreglass boat building, including design, construction, installation of marine systems, and vessel finishing. Graduates will emerge with the expertise needed to excel in the field of marine engineering and construction, contributing to the development of safe, efficient, and seaworthy fibreglass vessels.		
5. Regulations for the qualification		National Diploma in Fibreglass Boat Building 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
6. Schedule of Units		
Unit No.	Unit Title	Code
Common Competencies		
01	Apply writing and ICT skills	CON-03-CM01-V1-24
02	Manage customer experience and relationship	CON-03-CM02-V1-24
03	Demonstrate leadership and management skills	CON-03-CM03-V1-24
04	Conduct research methods and data management	CON-03-CM04-V1-24
Core Competencies		
05	Apply mathematics engineering for boat building	CON-03-CC24-V1-24
06	Utilise computing in marine engineering and construction	CON-03-CC25-V1-24
07	Design marine vessels and architect naval structures	CON-03-CC26-V1-24
08	Apply advanced fibreglass boat building techniques	CON-03-CC27-V1-24
09	Install and maintain marine electrical systems	CON-03-CC28-V1-24
10	Install and maintain marine propulsion systems	CON-03-CC29-V1-24
11	Install and maintain marine plumbing systems	CON-03-CC30-V1-24
12	Install and maintain marine HVAC systems	CON-03-CC31-V1-24
13	Design and execute marine interior fit-out	CON-03-CC32-V1-24
14	Weld and fabricate metal in marine construction	CON-03-CC33-V1-24
15	Perform marine structural repair and reinforcement	CON-03-CC34-V1-24

16	Manage and execute construction processes	CON-03-CC35-V1-24
17	Manage health and safety in marine construction	CON-03-CC36-V1-24
18	Finalise vessel finishing	CON-03-CC37-V1-24
7. Accreditation requirements		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.
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
01	Apply writing and ICT skills	CON-03-CM01-V1-24	V	10	100	50
02	Manage customer experience and relationship	CON-03-CM02-V1-24	V	10	100	50
03	Demonstrate leadership and management skills	CON-03-CM03-V1-24	V	10	100	50
04	Conduct research methods and data management	CON-03-CM04-V1-24	V	10	100	50
05	Apply mathematics engineering for boat building	CON-03-CC24-V1-24	V	10	100	50
06	Utilise computing in marine engineering and construction	CON-03-CC25-V1-24	IV	06	60	30
07	Design marine vessels and architect naval structures	CON-03-CC26-V1-24	V	08	80	40
08	Apply advanced fibreglass boat building techniques	CON-03-CC27-V1-24	IV	12	120	60
09	Install and maintain marine electrical systems	CON-03-CC28-V1-24	V	10	100	50
10	Install and maintain marine propulsion systems	CON-03-CC29-V1-24	V	10	100	50
11	Install and maintain marine plumbing systems	CON-03-CC30-V1-24	V	10	100	50
12	Install and maintain marine HVAC systems	CON-03-CC31-V1-24	V	10	100	50
13	Design and execute marine interior fit-out	CON-03-CC32-V1-24	V	08	80	40
14	Weld and fabricate metal in marine construction	CON-03-CC33-V1-24	V	08	80	40
15	Perform marine structural repair and reinforcement	CON-03-CC34-V1-24	V	08	80	40
16	Manage and execute construction processes	CON-03-CC35-V1-24	V	10	100	50
17	Manage health and safety in marine construction	CON-03-CC36-V1-24	V	06	60	30
18	Finalise vessel finishing	CON-03-CC37-V1-24	V	10	100	50
Total				166	1660	830

Packaging of National Qualifications:

National Certificate V in Fibreglass Boat Building 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

Qualification Code: CON-03L5-V1-24

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.