



Maldives National Skills Development Authority



# National Competency Standard for Surveying Technician

Standard Code: CON-11L3-V1-24

Qualification Name: National Certificate III in Surveying Technician

## 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 Surveying Technician 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 National Planning, Housing and Infrastructure
02	Niushad Saeed	Research Analyst	Ministry of Economic Development
03	Adnan Haleem	Secretary General	Maldives National Association of Construction Industry
04	Mohamed Rasheed	Director	Housing Development Corporation
05	Mohamed Waheed	Assistant Lecturer	Maldives Polytechnic
06	Hussain Shiyam	Civil Engineer	Civil Engineers Association
07	Ibrahim Shareef Hassan	Training Expert	Ibrahim Shareef Hassan
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:			
 <p>Adnan Haleem Chairperson Construction Sector Council</p> <p>Maldives National Skills Development Authority Umar Zahir Office Building, 5th Floor, Orchid Ma higu, HulhuMale', Republic of Maldives.</p>			
Date of Endorsement: 10/07/2024		Date of Revision: 10/07/2024	

TECHNICAL SUPPORT			
#	Name	Designation	Organisation
01			
02			

TECHNICAL PANEL MEMBERS			
#	Name	Designation	Organisation
01	Ahmed Nuaim	Managing Director	Foresight Surveyors PVT LTD
02	Ahmed Iyaz	Group Project Manager	Hotels and Resorts Investments Maldives
03	Farahath Jameel	Chief Surveyor	Water Solutions
04	Firdous Hussain	Director	Foresight Surveyors PVT LTD
05	Hassan Akram	Assistant Director	Housing Development Corporation

VERSION	DEVELOPER	DATE	STANDARD CODE
V1	Maldives Institute of Technology	03/02/2024	CON-11L3-V1-24

## Standard Development Process

---

The development of the “National Certificate III in Surveying Technician” Standard involved a comprehensive study of Land Surveying occupations in Maldivian workplaces, with a focus on tasks undertaken by land surveyors. 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 Land Surveying 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 Land Surveying program, ensuring its widespread implementation across the country.

## Description of “Surveying Technician”

---

The "Surveying Technician" standard serves as a foundational guideline designed to enhance essential skills across diverse projects across the Maldives. This program is dedicated to equipping individuals with fundamental competencies crucial necessary for proficient land surveying processes. Participants will gain practical insights into core techniques and practices, emphasising the significance the role of surveying or spatial information services assistants who work under supervision to support a surveying or spatial information services team.

The certification acts as an entry point for professionals venturing into the application of Land Surveying principles, providing a robust foundation in the fundamental skills required for the implementation and management of precise surveying systems. This standard is particularly beneficial for individuals in the Maldives pursuing to establish a solid foundation in ensuring quality and efficiency within the construction-related field and industry of land surveying.

## Proposed Qualification Titles

---

Following are the recommended titles by the selected internal expert team of MIT for the National Certificate III in Surveying Technician.

1. Nil-

## Job opportunities upon completion of “National Certificate III in Surveying Technician”

---

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

1. *Site Supervisor/ Site Surveyor*
2. *Assistant Surveyor*
3. *Land Administrator*

4. *Engineering Surveyor*
5. *Project Surveyor*
6. *Assistant FIS Surveyor*
7. *Assistant GIS Technician*

## 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 a 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 SURVEYING TECHNICIAN		
3. Qualification code: CON-11L3-V1-24		Total Number of Credits: 67
<b>4. Purpose of the qualification</b> This qualification aims to equip individuals with foundational skills and technical competence essential for successful careers in land surveying. This qualification emphasises precision in measurements, effective data management, and problem-solving abilities. Successful completion of this program ensures graduates are well-prepared for the demands of the field and equipped to contribute effectively to the practice of land surveying.		
5. Regulations for the qualification		National Certificate III in the occupation of Surveying Technician 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
6. Schedule of Units		
Unit No.	Unit Title	Code
Common Competencies		
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
06	Develop basic report writing skills	CON-11-CM01-V1-24
Core Competencies		
07	Apply surveying mathematics	CON-11-CC01-V1-24
08	Apply surveying health and safety	CON-11-CC02-V1-24
09	Develop basic CAD drafting	CON-11-CC03-V1-24
10	Understand control surveying	CON-11-CC04-V1-24
11	Conduct detail surveying and mapping using survey equipment	CON-11-CC05-V1-24
12	Conduct hydrographic surveying	CON-11-CC06-V1-24
13	Conduct construction and engineering surveys	CON-11-CC07-V1-24
14	Analyse survey management and computer processing	CON-11-CC08-V1-24
15	Comply with survey regulations and guidelines	CON-11-CC09-V1-24
7. Accreditation requirements		The training provider should have a workshop or similar training facility to provide the trainees the hands-on



	experience related to this qualification and 120 hours of industrial experience.
<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	Develop basic report writing skills	CON-11-CM01-V1-24	III	05	50	25
07	Apply surveying mathematics	CON-11-CC01-V1-24	III	04	40	20
08	Apply surveying health and safety	CON-11-CC02-V1-24	III	03	30	15
09	Develop basic CAD drafting	CON-11-CC03-V1-24	III	04	40	20
10	Understand control surveying	CON-11-CC04-V1-24	III	05	50	25
11	Conduct detail surveying and mapping using survey equipment	CON-11-CC05-V1-24	III	07	70	35
12	Conduct hydrographic surveying	CON-11-CC06-V1-24	III	06	60	30
13	Conduct construction and engineering surveys	CON-11-CC07-V1-24	III	06	60	30
14	Analyse survey management and computer processing	CON-11-CC08-V1-24	III	05	50	25
15	Comply with survey regulations and guidelines	CON-11-CC09-V1-24	III	04	40	20
Total				67	670	335

### Packaging of National Qualifications:

National Certificate III in Surveying Technician 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-11L3-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.