



Maldives National Skills Development Authority



# National Competency Standard for Food Processing and Preservation

Standard Code: FNA-07L5-V1-24

Qualification Name: National Diploma in Food Processing and Preservation

## 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 Food Processing and Preservation 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	Dr.Hussain Sinan	Director	Ministry of Fisheries and Ocean Resources
02	Ali Amir	Director	Ministry of Agriculture and Animal Welfare
03	Musthafa Abdul Gafoor	Senior Policy Officer	Ministry of Economic Development & Trade
04	Mifrah Naseem	General Manager- Sales and Marketing	Maldives Industrial Fisheries Company Limited
05	Dr. Ahmed Riyaz Jauhary	Dean	College of Fisheries and Ocean Sciences
06	Adnan Ali	Board Director / Advisor	Horizon Fisheries
07	Maizan Ahmed Manik	Chairman	Maizan Electronics
08	Aishath Shazleena	HR Manager	Agro National Corporation Ltd (AgroNat)
09	Shakeeba Ali	Director General	Maldives National Skills Development Authority

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

Dr. Ahmed Riyaz Jauhary  
Chairperson  
Fisheries and Agriculture Sector Council

Maldives National Skills Development Authority  
Umar Zahir Office Building, 5th Floor,  
Orchid Ma higon, HulhuMale' , Republic of Maldives.

Date of Endorsement: 17.09.2024

### TECHNICAL SUPPORT

#	Name	Designation	Organisation
01			
02			

TECHNICAL PANEL MEMBERS			
#	Name	Designation	Organisation
01	Aminath Lubna	-	-
02	Mariyam Ibrahim Didi	Food Quality Assurance Officer	Maldives Food and Drug Authority
03	Ali Ahmed	Senior Production Manager	Ensis Fisheries
04	Mishaal Ahmed	Head of Quality Control	Maldives Industrial Fisheries Company

VERSION	DEVELOPER	DATE	STANDARD CODE
V1	Maldives Institute of Technology	28/05/2024	FNA-07L5-V1-24

## Standard Development Process

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The development of the “National Diploma in Food Processing and Preservation” Standard involved a comprehensive study of Food processing occupations in Maldivian workplaces, with a focus on related 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 Fisheries & Agriculture 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 Fisheries & Agriculture Employment Sector Council, the finalised National Occupational Standard for Food Processing and Preservation 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 Food Processing and Preservation program, ensuring its widespread implementation across the country.

## Description of “Food Processing and Preservation”

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The "National Diploma in Food Processing and Preservation" is a comprehensive program designed to equip students with the knowledge and practical skills necessary to excel in the food industry. This program provides a robust foundation in food science, processing technologies, preservation methods, and quality assurance, preparing graduates for diverse roles within the sector.

Students will explore the scientific principles underpinning food processing and preservation, including the chemistry and microbiology of food, and learn about various technologies and methods used to maintain food safety and quality. The standard emphasises both theoretical understanding and hands-on experience, ensuring that students are well-prepared to meet the demands of the industry.

## Proposed Qualification Titles

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Following are the recommended titles by the selected internal expert team of MIT for the National Diploma in Food Processing and Preservation.

1. Nil-

## Job opportunities upon completion of “National Diploma in Food Processing and Preservation”

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Upon successful completion of the National Diploma in Food Processing and Preservation, students can work in the following jobs.

1. *Food Safety Inspector*
2. *Quality Assurance Officer*
3. *Food Product Specialist*
4. *Senior Production Supervisor (Food)*

## 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 within 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 DIPLOMA IN FOOD PROCESSING AND PRESERVATION		
3. Qualification code: FNA-07L5-V1-24		Total Number of Credits: 143
<b>4. Purpose of the qualification</b> The National Diploma in Food Processing and Preservation is designed to equip students with the essential knowledge and practical skills required for successful careers in the food industry. This qualification provides a robust understanding of food science, processing technologies, and preservation methods, ensuring that graduates are capable of maintaining food safety and quality. It emphasises industry relevance, aligning with current standards, technological advancements, and regulatory requirements to prepare students for various professional roles within the sector.		
5. Regulations for the qualification		National Diploma in Food Processing and Preservation 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
6. Schedule of Units		
Unit No.	Unit Title	Code
<b>Common Competencies</b>		
01	Apply writing and ICT skills	FNA-02-CM01-V1-24
02	Manage customer experience and relationship	FNA-02-CM02-V1-24
03	Lead and manage people	FNA-01-CM09-V2-24
04	Conduct research methods and data management	FNA-02-CM03-V1-24
<b>Core Competencies</b>		
05	Develop knowledge of food processing industries	FNA-07-CC12-V1-24
06	Understand fundamentals of food science	FNA-07-CC13-V1-24
07	Understand food safety regulations and standard	FNA-07-CC14-V1-24
08	Plan and coordinate production equipment maintenance	FNA-07-CC15-V1-24
09	Design and apply GMP and GHP	FNA-07-CC16-V1-24
10	Develop, manage and maintain quality systems for food processing	FNA-07-CC17-V1-24
11	Develop a HACCP-based food safety plan	FNA-07-CC18-V1-24
12	Conduct a traceability exercise	FNA-07-CC19-V1-24
13	Apply methods and techniques of food processing and preservation	FNA-07-CC20-V1-24
14	Apply digital technology in food processing	FNA-07-CC21-V1-24
15	Develop knowledge on nutritional and biochemical components of products	FNA-07-CC22-V1-24

16	Apply basic process engineering principles to food processing	FNA-07-CC23-V1-24
17	Apply analytical techniques	FNA-07-CC24-V1-24
18	Apply principles of food packaging	FNA-07-CC25-V1-24
19	Develop innovative food products	FNA-07-CC26-V1-24
<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 writing and ICT skills	FNA-02-CM01-V1-24	V	10	100	50
02	Manage customer experience and relationship	FNA-02-CM02-V1-24	V	10	100	50
03	Lead and manage people	FNA-01-CM09-V2-24	IV	10	100	50
04	Conduct research methods and data management	FNA-02-CM03-V1-24	V	10	100	50
05	Develop knowledge of food processing industries	FNA-07-CC12-V1-24	V	04	40	20
06	Understand fundamentals of food science	FNA-07-CC13-V1-24	V	04	40	20
07	Understand food safety regulations and standard	FNA-07-CC14-V1-24	IV	06	60	30
08	Plan and coordinate production equipment maintenance	FNA-07-CC15-V1-24	IV	06	60	30
09	Design and apply GMP and GHP	FNA-07-CC16-V1-24	V	10	100	50
10	Develop, manage and maintain quality systems for food processing	FNA-07-CC17-V1-24	V	04	40	20
11	Develop a HACCP-based food safety plan	FNA-07-CC18-V1-24	V	14	140	70
12	Conduct a traceability exercise	FNA-07-CC19-V1-24	V	06	60	30
13	Apply methods and techniques of food processing and preservation	FNA-07-CC20-V1-24	V	09	90	45
14	Apply digital technology in food processing	FNA-07-CC21-V1-24	V	08	80	40
15	Develop knowledge on nutritional and biochemical components of products	FNA-07-CC22-V1-24	V	06	60	30
16	Apply basic process engineering principles to food processing	FNA-07-CC23-V1-24	V	06	60	30
17	Apply analytical techniques	FNA-07-CC24-V1-24	V	06	60	30
18	Apply principles of food packaging	FNA-07-CC25-V1-24	IV	07	70	35
19	Develop innovative food products	FNA-07-CC26-V1-24	V	07	70	35
Total				143	1430	715

**Packaging of National Qualifications:**

National Diploma Food Processing and Preservation 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

Qualification Code: FNA-07L5-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.