



# **COMPETENCY STANDARD FOR INDUSTRIAL BAKING**

**Level: 3**

**(Agro-food Sector)**

**Competency Standard Code: CS-AF-IB-L3-EN-V1**



জাতীয় দক্ষতা উন্নয়ন কর্তৃপক্ষ বাংলাদেশ  
NATIONAL SKILLS DEVELOPMENT AUTHORITY BANGLADESH

**National Skills Development Authority  
Chief Adviser's Office  
Government of the People's Republic of Bangladesh**



## Copyright

---

National Skills Development Authority  
Chief Adviser's Office  
Level: 10-11, Biniyog Bhaban,  
E-6 / B, Agargaon, Sher-E-Bangla Nagar Dhaka-1207, Bangladesh.  
Email: [ec@nsda.gov.bd](mailto:ec@nsda.gov.bd)  
Website: [www.nstda.gov.bd](http://www.nstda.gov.bd).  
National Skills Portal: <http://skillsportal.gov.bd>

National Skills Development Authority (NSDA) is the owner of this document. Other interested parties must obtain written permission from NSDA for reproduction of information in any manner, in whole or in part, of this Competency Standard, in English or other language.

This Competency Standard for Industrial Baking is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

This document has been developed by NSDA in association with Agro-food Sector, industry representatives, academia, related specialist, trainer and related employee.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

## Introduction

---

The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skills ecosystem and delivery mechanism through a combination of well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program. "**Industrial Baking**" is selected as one of the priority occupations of Agro-food Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of trainees enrolled in Skills Training. Trainees who successfully pass the assessment will receive a qualification under Bangladesh National Qualification Framework and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding Elements.

## Overview

---

A competency standard is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of representative from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in Agro-food Sector.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasizing what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guide

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key components of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

## Competency Standards for National Skill Certificate, Level-3 in Industrial Baking in Agro-food Sector

### Level Descriptors of BNQF 1-6

Level & Job classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker	Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

## List of Abbreviations

CS	Competency Standard
ISC	Industry Skills Council
NSDA	National Skills Development Authority
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
SCVC	Standards and Curriculum Validation Committee
STP	Skills Training Provider
SOP	Standard Operating Procedure
UoC	Unit of Competency

Approved by  
46<sup>th</sup> Authority Meeting of NSDA  
Held on 01.01.2026.

## Table of Contents

<b>Copyright</b> .....	<b>i</b>
Introduction.....	<b>ii</b>
Overview.....	<b>iii</b>
<b>Level Descriptors of BNQF (1-6)</b> .....	<b>iv</b>
<b>List of Abbreviations</b> .....	<b>v</b>
<b>Course Structure</b> .....	<b>1</b>
<b>Units &amp; Elements at Glance</b> .....	<b>2</b>
<b>Generic Units of Competencies</b> .....	<b>5</b>
GU-02-L1-V1: Apply Occupational Safety and Health (OSH) Procedure in the Workplace	6
GU-06-L1-V1: Practice Housekeeping Procedure .....	10
<b>Sector Specific Units of Competencies</b> .....	<b>13</b>
SU-AF-01-L1-V1: Work in the Food Industry .....	14
SU-AF-02-L3-V1: Follow Food Safety, Hygiene and HACCP Requirements .....	17
<b>Occupation Specific Units of Competencies</b> .....	<b>21</b>
OU-AF-IB-01-L3-V1: Identify Tools, Machinery and Materials for Baking.....	22
OU-AF-IB-02-L3-V1: Organize Raw Materials and Perform Mixing .....	26
OU-AF-IB-03-L3-V1: Prepare for Baking .....	31
OU-AF-IB-04-L3-V1: Perform Baking .....	34
OU-AF-IB-05-L3-V1: Ensure Quality and Production Efficiency .....	37
<b>Development of Competency Standard</b> .....	<b>41</b>
<b>Validation of Competency Standard</b> .....	<b>43</b>



**Competency Standards for National Skill Certificate, Level-3 in  
Industrial Baking in Agro-food Sector**

**Course Structure**

<b>SL No</b>	<b>Unit code and Title</b>	<b>UOC Level</b>	<b>Nominal (hours)</b>
<b>Generic Units of Competencies</b>			
1.	GU-02-L1-V1	Apply Occupational Safety and Health (OSH) Procedure in the Workplace	15
2.	GU-06-L1-V1	Practice Housekeeping Procedure	15
<b>Sub Total</b>			<b>30</b>
<b>Sector Specific Units of Competencies</b>			
3.	SU-AF-01-L1-V1	Work in the Food Industry	20
4.	SU-AF-02-L3-V1	Follow Food Safety, Hygiene and HACCP Requirements	20
<b>Sub Total</b>			<b>40</b>
<b>Occupation Specific Units of Competencies</b>			
5.	OU-AF-IB-01-L3-EN-V1	Identify Tools, Machinery and Materials for Baking	30
6.	OU-AF-IB-02-L3-EN-V1	Organize Raw Materials and Perform Mixing	80
7.	OU-AF-IB-03-L3-EN-V1	Prepare for Baking	60
8.	OU-AF-IB-04-L3-EN-V1	Perform Baking	60
9.	OU-AF-IB-05-L3-EN-V1	Ensure Quality and Production Efficiency	30
<b>Sub Total</b>			<b>260</b>
<b>Workplace Visit</b>			<b>20</b>
<b>Total Duration</b>			<b>350</b>

## Units & Elements at Glance

### Generic Competencies

<b>Code</b>	<b>Unit of competency</b>	<b>Elements of competency</b>	<b>Duration (hours)</b>
GU-02-L1-V1	Apply Occupational Safety and Health (OSH) procedure In the Workplace	<ol style="list-style-type: none"><li>1. Identify OSH policies and procedures</li><li>2. Follow OSH procedure</li><li>3. Report hazards and risks</li><li>4. Respond to emergencies</li><li>5. Maintain personal well-being</li></ol>	15
GU-06-L1-V1	Practice Housekeeping Procedure	<ol style="list-style-type: none"><li>1. Sort and remove unnecessary items</li><li>2. Arrange items</li><li>3. Maintain work area, tools and equipment</li><li>4. Follow standardized work process and procedure</li><li>5. Perform work spontaneously</li></ol>	15
<b>Total hours</b>			<b>30</b>

## Sector specific competencies

Code	Unit of competency	Elements of competency	Duration (hours)
SU-AF-01-L1-V1	Work in the Food Industry	<ol style="list-style-type: none"> <li>1. Identify job roles and responsibilities in the food industry</li> <li>2. Identify and observe OSH in the food industry</li> <li>3. Plan work activities</li> <li>4. Work with others</li> </ol>	20
SU-AF-02-L3-V1	Follow Food Safety, Hygiene and HACCP Requirements	<ol style="list-style-type: none"> <li>1. Practice personal hygiene and good grooming standards</li> <li>2. Follow safe food handling and sanitation practices</li> <li>3. Participate in a Hazard Analysis and Critical Control Points (HACCP) team</li> <li>4. Monitor quality of work outcome</li> <li>5. Identify and act on quality deficits and / or food safety hazards</li> </ol>	20
<b>Total hours</b>			<b>40</b>

## Occupation specific competencies

Code	Unit of competency	Elements of competency	Duration (hours)
OU-AF-IB-01-L3-EN-V1	Identify Tools, Machinery and Materials for Baking	<ol style="list-style-type: none"> <li>1. Identify Baked Products</li> <li>2. Recognize Tools and Machinery</li> <li>3. Identify Materials for Baked Products</li> </ol>	30
OU-AF-IB-02-L3-EN-V1	Organize Raw Materials and Perform Mixing	<ol style="list-style-type: none"> <li>1. Follow OSH</li> <li>2. Collect and Mix Raw Materials and ingredients for Bread</li> <li>3. Collect and Mix Raw Materials and ingredients for Biscuit</li> <li>4. Collect and Mix Raw Materials and ingredients for Cake</li> <li>5. Clean and Maintain Tools, Machinery and Workplace</li> </ol>	80
OU-AF-IB-03-L3-EN-V1	Prepare for Baking	<ol style="list-style-type: none"> <li>1. Follow OSH</li> <li>2. Perform Molding and Proofing for Bread</li> <li>3. Perform Rolling and Proofing for Toast</li> <li>4. Carryout Forming for Biscuit</li> <li>5. Accomplish Molding for Cake and dry cake</li> <li>6. Clean and maintain tools, equipment and workplace</li> </ol>	60
OU-AF-IB-04-L3-EN-V1	Perform Baking	<ol style="list-style-type: none"> <li>1. Follow OSH</li> <li>2. Carryout Baking for Bread</li> <li>3. Complete Baking for Biscuit</li> <li>4. Perform Baking for Cake</li> <li>5. Perform Second Baking for Toast and Dry cake</li> <li>6. Clean and Maintain Tools, Machinery and Workplace</li> </ol>	60
OU-AF-IB-05-L3-EN-V1	Ensure Quality and Production Efficiency	<ol style="list-style-type: none"> <li>1. Check Quality of Baked Products</li> <li>2. Ensure Production Efficiency</li> </ol>	30
<b>Total Hours</b>			<b>260</b>

# **Generic Units of Competencies**

<b>Unit Code and Title</b>	<b>GU-02-L1-V1: Apply Occupational Safety and Health (OSH) Procedure in the Workplace</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes (KSA) required in applying occupational safety and health (OSH) procedures in the workplace. It specifically includes identifying OHS policies and procedures, following OSH procedure, reporting to emergencies, and maintaining personal well-being.
<b>Nominal Hours</b>	<b>15 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; Underlined</u></b> terms are elaborated in the Range of Variables
1. Identify OSH policies and procedures.	1.1 <b><u>OHS policies</u></b> and <b><u>safe operating procedures</u></b> are accessed and stated. 1.2 <b><u>Safety signs and symbols</u></b> are identified and followed. 1.3 Emergency response, evacuation procedures and other contingency measures are determined according to workplace requirements.
2. Follow OSH procedure	2.1 <b><u>Personal protective equipment (PPE)</u></b> is selected and collected as required. 2.2 Personal protective equipment (PPE) is correctly used in accordance with organization OHS procedures and practices. 2.3 A clear and tidy workplace is maintained as per workplace standard. 2.4 PPE is maintained to keep them operational and compliant with OHS regulations.
3. Report hazards and risks.	3.1 <b><u>Hazards</u></b> and risks are identified, assessed and controlled. 3.2 Incidents arising from hazards and risks are reported to designated authority.
4. Respond to emergencies	4.1 Alarms and warning devices are responded. 4.2 Workplace <b><u>emergency procedures</u></b> are followed. 4.3 <b><u>Contingency measures</u></b> during workplace accidents, fire and other emergencies are recognized and followed in accordance with organization procedures. 4.4 First aid procedures is applied during emergency situations.
5. Maintain personal well-being	5.1 OHS policies and procedures are adhered to. 5.2 OHS awareness programs are participated in as per workplace guidelines and procedures. 5.3 Corrective actions are implemented to correct unsafe condition in the workplace.

	5.4 <b>“Fit to work” records</b> are updated and maintained according to workplace requirements.
<b>Range of Variables</b>	
<b>Variables</b>	<b>Range</b> (may include but not limited to):
1. OHS Policies	1.1 Bangladesh standards for OHS 1.2 Fire Safety Rules and Regulations 1.3 Code of Practice 1.4 Industry Guidelines
2. Safe Operating Procedures	2.1 Orientation on emergency exits, fire extinguishers, fire escape, etc. 2.2 Emergency procedures 2.3 First Aid procedures 2.4 Tagging procedures 2.5 Use of PPE 2.6 Safety procedures for hazardous substances
3. Safety Signs and symbols	3.1 Direction signs (exit, emergency exit, etc.) 3.2 First aid signs 3.3 Danger Tags 3.4 Hazard signs 3.5 Safety tags 3.6 Warning signs
4. Personal Protective Equipment (PPE)	4.1 Gas Mask 4.2 Gloves 4.3 Safety boots 4.4 Face mask 4.5 Overalls 4.6 Goggles and safety glasses 4.7 Sun block 4.8 Chemical/Gas detectors
5. Hazards	5.1 Chemical hazards 5.2 Biological hazards 5.3 Physical Hazards 5.4 Mechanical and Electrical Hazard 5.5 Mental hazard 5.6 Ergonomic hazard
6. Emergency Procedures	6.1 Fire fighting 6.2 Earthquake 6.3 Medical and first aid 6.4 Evacuation
7. Contingency measures	7.1 Evacuation 7.2 Isolation 7.3 Decontamination
8. “Fit to Work” records	8.1 Medical Certificate every year 8.2 Accident reports, if any 8.3 Eye vision certificate

**Evidence Guide**

The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency

1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 stated OHS policies and safe operating procedures 1.2 followed safety signs and symbols 1.3 used personal protective equipment (PPE) 1.4 maintained workplace clear and tidy 1.5 assessed and Controlled hazards 1.6 followed emergency procedures 1.7 followed contingency measures 1.8 implemented corrective actions
2. Underpinning knowledge	2.1 Define OHS 2.2 OHS Workplace Policies and Procedures 2.3 Work Safety Procedures 2.4 Emergency Procedures 2.5 Hazard control procedure 2.6 Different types of Hazards 2.7 PPE and uses 2.8 Personal Hygiene Practices 2.9 OHS Awareness
3. Underpinning skills	3.1 Accessing OHS policies 3.2 Handling of PPE 3.3 Handling cleaning tools and equipment 3.4 Writing report 3.5 Responding to emergency procedures
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace 5.2 Equipment and outfits appropriate in applying safety measures 5.3 Tools, materials and documentation required 5.4 OHS Policies and Procedures
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio

7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
--------------------------	--

**Accreditation Requirements**

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

<b>Unit Code and Title</b>	<b>GU-06-L1-V1: Practice Housekeeping Procedure</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitude required to Practice housekeeping procedure. It specifically includes sorting and removing unnecessary items, arranging items, maintaining work area, tools and equipment, following standardized work process and procedure and performing work spontaneously.
<b>Nominal Hours</b>	<b>15 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold underlined</u></b> terms are elaborated in the Range of Variables
1. Sort and remove unnecessary items	1.1 Reusable, recyclable materials are sorted in accordance with company/office procedures 1.2 <b><u>Unnecessary items</u></b> are removed and disposed of in accordance with company or office procedures
2. Arrange items	2.1 Items are arranged in accordance with company/office housekeeping procedures 2.2 Work area is arranged according to job requirements 2.3 Activities are prioritized based on instructions. 2.4 Items are provided with clear and visible <b><u>identification marks</u></b> based on procedure 2.5 Safety equipment and evacuation passages are kept clear and accessible based on instructions
3. Maintain work area, tools and equipment	3.1 Cleanliness and orderliness of work area is maintained in accordance with company/office procedures 3.2 Tools and equipment are cleaned in accordance with manufacturer's instructions/manual 3.3 <b><u>Minor repairs</u></b> are performed on tools and equipment in accordance with manufacturer's instruction/manual 3.4 Defective tools and equipment are reported to immediate supervisor
4. Follow standardized work process and procedure	4.1 Materials for common use are maintained in designated area based on procedures 4.2 Work is performed according to standard work procedures. Abnormal incidents are reported to immediate supervisor
5. Perform work spontaneously	5.1 Work is performed as per instruction 5.2 Company and office <b><u>decorum</u></b> are followed and complied with 5.3 Work is performed in accordance with OSH requirements
<b>Range of Variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):

1. Unnecessary items	<ul style="list-style-type: none"> <li>1.1 Non-recyclable materials</li> <li>1.2 Pictures, posters and other materials not related to work activity</li> <li>1.3 Unserviceable tools and equipment</li> <li>1.4 Waste materials</li> </ul>
2. Identification marks	<ul style="list-style-type: none"> <li>2.1 Color coding</li> <li>2.2 Labels</li> <li>2.3 Tags</li> </ul>
3. Minor repairs	<ul style="list-style-type: none"> <li>3.1 Application of lubricants</li> <li>3.2 Replacement of parts</li> <li>3.3 Sharpening of tools</li> <li>3.4 Tightening of nuts, bolts and screws</li> </ul>
4. Decorum	<ul style="list-style-type: none"> <li>4.1 Behavior</li> <li>4.2 Company/office rules and regulations</li> <li>4.3 Company/office uniform</li> </ul>
<p><b>Evidence Guide</b></p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.</p>	
1. Critical aspects of competency	<ul style="list-style-type: none"> <li>1.1 Sorted and removes unnecessary items</li> <li>1.2 Arranged items</li> <li>1.3 Maintained work area, tools and equipment</li> <li>1.4 Followed standardized work process and procedures</li> <li>1.5 Performed work spontaneously</li> </ul>
2. Underpinning knowledge	<ul style="list-style-type: none"> <li>2.1 Environmental requirements relative to work safety</li> <li>2.2 Principles of 5S</li> <li>2.3 Reading skills required to interpret instructions</li> <li>2.4 Work process and procedures</li> <li>2.5 Work-related documentation requirements</li> </ul>
3. Underpinning skills	<ul style="list-style-type: none"> <li>3.1 Arranging items</li> <li>3.2 Maintaining work area, tools and equipment</li> <li>3.3 Following standardizing work process</li> </ul>
4. Underpinning attitude	<ul style="list-style-type: none"> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>
5. Resource implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> <li>5.1 Work place Procedure</li> </ul>

	<p>5.2 Materials relevant to the proposed activity</p> <p>5.3 All tools, equipment, material and documentation required.</p> <p>5.4 Relevant specifications or work instructions</p>
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <p>6.1 Written test</p> <p>6.2 Demonstration</p> <p>6.3 Oral questioning</p> <p>6.4 Portfolio</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in a training center or in an actual or simulated work place after Completion of the training module</p> <p>7.2 Assessment should be done by NSDA certified assessor</p>
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

## **Sector Specific Units of Competencies**

<b>Unit Code and Title</b>	<b>SU-AF-01-L1-V1: Work in the Food Industry</b>
<b>Nominal Hours</b>	<b>20 Hours</b>
<b>Unit Descriptor</b>	<p>This unit specifies the knowledge, skills and attitude required to identify roles and responsibilities and work in the food industry.</p> <p>It includes the tasks of identifying job roles and responsibilities in the food industry, identifying and observe OSH in the food industry, planning work activities and working with others.</p>
<b>Elements of Competency</b>	<p><b>Performance Criteria</b></p> <p><b><u>Bold and Underlined</u></b> terms are elaborated in the Range of Variables.</p>
1. Identify job roles and responsibilities in the food industry	<p>1.1 Job roles and responsibilities in the food industry are identified.</p> <p>1.2 Relationships within the food industry employees are identified.</p>
2. Identify and observe OSH in the food industry.	<p>2.1 <b><u>PPE</u></b> used in the food industry are identified and worn.</p> <p>2.2 Safe work practices are followed when using equipment in the work environment.</p>
3. Plan work activities	<p>3.1. Common goals, objectives and tasks are identified and clarified with appropriate persons.</p> <p>3.2. Individual tasks are determined and agreed on according to workplace environment.</p>
4. Work with others	<p>4.1 <b><u>Effective interpersonal skills</u></b> are applied to interact with others and to contribute to activities and objectives.</p> <p>4.2 Assigned tasks are performed in accordance with job requirements, Work requirements are confirmed with colleagues.</p>
<b>Range of Variables</b>	
<b>Variables</b>	<b>Range</b> (may include but not limited to):
1. PPE	<p>1.1 Apron</p> <p>1.2 Hand Gloves</p> <p>1.3 Hair net</p> <p>1.4 Hair cap</p> <p>1.5 Face mask</p> <p>1.6 Safety shoe</p> <p>1.7 Shoe cover</p> <p>1.8 Ear plug</p> <p>1.9 Beard net</p>

2. Effective interpersonal skills	2.1 Basic listening and speaking skills 2.2 Use of terminology and jargon 2.3 Communicating and receiving feedback 2.4 Interpretation of instructions, 2.5 Interpretation basic principles of effective communication
<b>Evidence Guide</b> The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 Followed work place rule and regulation. 1.2 Identified Common goals, objectives and tasks 1.3 Determined Individual tasks 1.4 Make a work plan 1.5 Group forming and work with others.
2. Underpinning knowledge	2.1 Positive attitudes for work others. 2.2 Define own task 2.3 Food sector in Bangladesh 2.4 Job opportunity 2.5 Written and oral language communication 2.6 OSH
3. Underpinning skills	3.1 Identifying task 3.2 Communicating with co workers 3.3 Communicating with supervisor 3.4 Writing report
4. Underpinning attitudes	4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace
5. Resource implications	5.1 Workplace 5.2 equipment and facilities appropriate to processes or activity. 5.3 Stand by firefighting equipment 5.4 Materials relevant to the proposed activity. 5.5 Equipment and outfits appropriate in applying safety measures. 5.6 Relevant manuals, codes, standards and reference material.
6. Methods of assessment	Competency should be assessed by 6.1 Demonstration 6.2 Oral questioning 6.3 Written test

7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
--------------------------	--

**Accreditation Requirements**

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

<b>Unit Code and Title</b>	<b>SU-AF-02-L3-V1: Follow Food Safety, Hygiene and HACCP Requirements</b>
<b>Nominal Hours</b>	<b>20 Hours</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to follow food safety, hygiene and HACCP management. It specifically includes the tasks of practicing personal hygiene and good grooming standards, following safe food handling and sanitation practices, participating in a Hazard Analysis and Critical Control Points (HACCP) team, monitoring quality of work outcome, identifying and act on quality deficits and / or food safety hazards.
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold and Underlined</u></b> terms are elaborated in the Range of Variables.
1. Practice personal hygiene and good grooming standards	1.1 Personal hygiene and good grooming are practiced in line with workplace health and safety requirements. 1.2 Health conditions and/or illness are reported as required by the food safety program. 1.3 <b><u>Clothing and footwear</u></b> are appropriate for the food handling task and meets the requirements of the food safety program. 1.4 Movement around the workplace complies with the food safety program.
2. Follow safe food handling and sanitation practices	2.1 <b><u>Food handling</u></b> requirements are identified. 2.2 Safe food handling practices are followed in line with workplace sanitation regulations and the food safety code. 2.3 The workplace is maintained in a clean and tidy order to meet workplace standards.
3. Participate in a Hazard Analysis and Critical Control Points (HACCP) team	3.1 A HACCP team is formed following industry standard 3.2 Potential sources of microbiological, chemical and physical hazards are identified 3.3 Critical Control Points and critical limits for taking corrective action are set to prevent potential hazards 3.4 Monitoring system is established according to standard operating procedures (SOP) 3.5 Corrective action procedure and verification system are established according to standard procedures 3.6 Paper work related to the HACCP system and all critical control points are recorded as per standard procedure.
4. Monitor quality of	4.1 Quality requirements are identified.

work outcome	<p>4.2 Inputs are inspected to confirm capability to meet quality requirements.</p> <p>4.3 Work is conducted and monitored to produce required outcomes.</p>
5. Identify and act on quality deficits and / or food safety hazards	<p>5.1 Work area, materials, equipment and product are routinely checked to ensure compliance with quality and / or food safety requirements.</p> <p>5.2 <b><u>Processes, practices or conditions</u></b> that are not consistent with quality standards or food safety program are identified.</p> <p>5.3 Quality variations and / or <b><u>food safety</u></b> hazards are rectified or removed within the level of responsibility and in accordance with workplace procedures.</p> <p>5.4 Quality variations and / or food safety outside the scope of individual responsibility are reported to appropriate personnel according to workplace reporting requirements.</p>
<b>Range of Variables</b>	
<b>Variables</b>	<b>Range (may include but not limited to):</b>
1. Personal Protective Equipment (PPE)	<p>1.1 Apron</p> <p>1.2 Protective clothing</p> <p>1.3 Gloves</p> <p>1.4 Hair net</p> <p>1.5 Other PPE as per OSH requirements</p>
2. Clothing and footwear	<p>2.1 Purpose designed overalls or uniforms</p> <p>2.2 Hair-nets</p> <p>2.3 Beard snoods</p> <p>2.4 Gloves</p>
3. Food handled and stored	<p>3.1 Raw materials</p> <p>3.2 Consumables</p> <p>3.3 Part-processed product</p> <p>3.4 Finished product</p> <p>3.5 Cleaning materials</p>
4. Processes, practices or conditions	<p>4.1 Methods of receiving and storing food</p> <p>4.2 Food preparation</p> <p>4.3 Cooking</p> <p>4.4 Holding</p> <p>4.5 Cooling</p> <p>4.6 Chilling and reheating</p> <p>4.7 Packaging</p> <p>4.8 Disposal</p>

5. Food safety	5.1 Failure to check delivery temperatures of potentially hazardous chilled food 5.2 Failure to place temperature-sensitive food in temperature- controlled storage conditions promptly 5.3 Failure to wash hands when required 5.4 Use of cloths for unsuitable purposes
<b>Evidence Guide</b> The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment required evidence that the candidate: <ol style="list-style-type: none"> <li>1.1 maintained housekeeping standards in workplace following OSH requirements.</li> <li>1.2 maintained personal hygiene and worn PPE as per OSH requirements.</li> <li>1.3 cleaned equipment and workplace for production and hygiene requirements.</li> <li>1.4 rectified or removed quality variations and/or food safety hazards with the level of responsibility and in accordance with workplace procedures.</li> <li>1.5</li> </ol>
2. Underpinning knowledge	<ol style="list-style-type: none"> <li>2.1 Practice personal hygiene.</li> <li>2.2 Rules and regulations to produce quality and safety in food.</li> <li>2.3 Control measures for food safety.</li> <li>2.4 Food safety hazards.</li> <li>2.5 Cleaning, sanitation and waste storage and disposal practices.</li> <li>2.6 Food safety procedures.</li> <li>2.7 HACCP team</li> <li>2.8 Monitor quality of work outcome.</li> <li>2.9 Job roles, responsibilities and compliance.</li> </ol>
3. Underpinning skills	<ol style="list-style-type: none"> <li>3.1 Practicing personal hygiene and good grooming in line with workplace health and safety requirements.</li> <li>3.2 Identifying food rules and regulations, food grade preservatives and food additives to meet food production safety requirements according to BSTI.</li> <li>3.3 Controlling the measures for minimizing food contamination for food safety (for example keeping out micro-organisms, maintenance of anaerobic conditions, use of low temperatures, drying, use of chemical preservatives etc.).</li> <li>3.4 Performing waste collection, recycling, handling and disposal.</li> <li>3.5 Performing food safety procedures such as: checking</li> </ol>

	<p>delivery temperatures of potentially hazardous chilled food, placing temperature-sensitive food in temperature-controlled storage conditions promptly, washing hands when required, use of cloths for unsuitable purposes.</p> <p>3.6 Performing food safety and quality responsibilities and requirements relating to the work area.</p> <p>3.7 Responding quickly and to take safety precautions for different hazardous situations.</p>
4. Required attitudes	<p>4.1 Commitment to occupational health and safety.</p> <p>4.2 Promptness in carrying out activities.</p> <p>4.3 Sincere and honest to duties.</p> <p>4.4 Eagerness to learn.</p> <p>4.5 Tidiness and timeliness.</p> <p>4.6 Environmental concern.</p> <p>4.7 Respect to peers and seniors at workplace.</p> <p>4.8 Communicate with peers and seniors at workplace.</p>
5. Resource implications	<p>5.1 Workplace (actual or simulated)</p> <p>5.2 Tools, equipment and facilities appropriate to processes or activities materials relevant to the proposed activity.</p>
6. Methods of assessment	<p>Competency should be assessed by</p> <p>6.1 Demonstration</p> <p>6.2 Oral questioning</p> <p>6.3 Written test</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>

#### **Accreditation Requirements**

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

# **Occupation Specific Units of Competencies**

<b>Unit Code and Title</b>	<b>OU-AF-IB-01-L3-EN-V1: Identify Tools, Machinery and Materials for Baking</b>
<b>Unit Descriptor</b>	This unit covers the skills, knowledge and attitude required to Identify Tools, Machinery and Materials for Baking. It specifically includes Identifying Baked Products, Recognizing Tools and Machinery and Identifying Materials for Baked Products.
<b>Nominal Hours</b>	<b>30 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; Underlined</u></b> terms are elaborated in the Range of Variables
1. Identify Baked Products	1.1 Baking is interpreted 1.2 <b><u>Categories of baked products</u></b> are identified 1.3 <b><u>Different types of baked products</u></b> are identified and listed
2. Recognize Tools and Machinery	2.1 <b><u>Baking tools</u></b> are identified and listed as per products category 2.2 <b><u>Baking machinery</u></b> are identified 2.3 Use of each tools and machinery are recognized
3. Identify Materials for Baked Products	3.1 <b><u>Raw materials</u></b> for baked products are identified and listed 3.2 <b><u>Related ingredients</u></b> are identified 3.3 Quality factors for raw materials are interpreted 3.4 <b><u>Cleaning tools and agents</u></b> are identified
<b>Range of Variables</b>	
<b>Variables</b>	<b>Range</b> (may include but not limited to):
1. Categories of baked products	1.1 Bread 1.2 Biscuit 1.3 Cake
2. Different types of baked products	2.1 Bread 2.1.1 White bread 2.1.2 Brown bread 2.1.3 Sandwich bread 2.1.4 Milk bread 2.1.5 Bun 2.1.6 Toast 2.2 Biscuit 2.2.1 Hard dough biscuit 2.2.1.1 Hard biscuit 2.2.1.2 Crackers 2.2.2 Short dough biscuit 2.2.2.1 Soft bite biscuit 2.2.2.2 Sandwich cream biscuit

	<ul style="list-style-type: none"> <li>2.2.2.3 Chocolate coating biscuit</li> <li>2.2.3 Soft dough (Cookies) biscuit / <ul style="list-style-type: none"> <li>2.2.3.1 Wire cut</li> <li>2.2.3.2 Drop/ Deposit</li> <li>2.2.3.3 Chocolate fill</li> </ul> </li> <li>2.3 Cake <ul style="list-style-type: none"> <li>2.3.1 Soft cake <ul style="list-style-type: none"> <li>2.3.1.1 Slice cake</li> <li>2.3.1.2 Sponge cake</li> <li>2.3.1.3 Layer cake</li> <li>2.3.1.4 Cup cake</li> <li>2.3.1.5 Cream fill cake</li> </ul> </li> <li>2.3.2 Dry cake</li> </ul> </li> </ul>
3. Baking tools	<ul style="list-style-type: none"> <li>3.1 Weighing scale</li> <li>3.2 Scoop</li> <li>3.3 Sieve</li> <li>3.4 SS spoon</li> <li>3.5 Baking mold</li> <li>3.6 Baking tray</li> <li>3.7 Baking trolley</li> <li>3.8 SS bowl</li> <li>3.9 SS mug</li> <li>3.10 Scraper</li> <li>3.11 Knife</li> </ul>
4. Baking machinery	<ul style="list-style-type: none"> <li>4.1 Mixer machine</li> <li>4.2 Proofer</li> <li>4.3 Depositor</li> <li>4.4 Forming machine</li> <li>4.5 Oven</li> <li>4.6 Slicer</li> </ul>
5. Raw materials	<ul style="list-style-type: none"> <li>5.1 Flour</li> <li>5.2 Sugar</li> <li>5.3 Salt</li> <li>5.4 Fats and Oil</li> <li>5.5 Water</li> <li>5.6 Egg</li> <li>5.7 Milk powder</li> </ul>
6. Related ingredients	<ul style="list-style-type: none"> <li>6.1 Food grade flavor</li> <li>6.2 Food grade color</li> <li>6.3 Bread improver</li> <li>6.4 Emulsifier</li> <li>6.5 Starch</li> </ul>

	6.6 Leavening agents (Yeast, Baking powder, ABC, SBC, SAPP etc.) 6.7 Shelf life enhancer
7. Cleaning tools and agents	7.1 Cleaning tools 7.1.1 Scraper 7.1.2 Duster cloth 7.1.3 Brush 7.1.4 Cleaning spray gun 7.2 Cleaning agents 7.2.1 Hot water 7.2.2 Caustic soda (food grade) 7.2.3 Detergent (food grade) 7.3 Sanitizers/Disinfectants agents
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 identified baked products 1.2 recognized tools and machinery 1.3 identified materials for baked products
2. Underpinning knowledge	2.1 Baking 2.2 Categories of baked products 2.3 Different types of baked products 2.4 Baking tools 2.5 Baking machinery and use 2.6 Raw materials for baked products 2.7 Related ingredients 2.8 Quality factors for raw materials 2.9 Cleaning tools and agents
3. Underpinning skills	3.1 Identifying baked products 3.2 Recognizing tools and machinery 3.3 Identifying materials for baked products
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Respect of peers and seniors in workplace 4.7 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace (simulated or actual) 5.2 Baked products 5.3 Baking tools and machinery 5.4 Relevant raw materials and ingredients

	5.5 Learning materials
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor

**Accreditation Requirements**

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

<b>Unit Code and Title</b>	<b>OU-AF-IB-02-L2-EN-V1: Organize Raw Materials and Perform Mixing</b>
<b>Unit Descriptor</b>	This unit covers the skills, knowledge and attitude required to Organize Raw Materials and Perform Mixing. It specifically includes following OSH, Collecting and Mixing Raw Materials and ingredients for Bread, Collecting and Mixing Raw Materials and ingredients for Biscuit, Collecting and Mixing Raw Materials and ingredients for Cake, and Cleaning and Maintaining Tools, Machinery and Workplace.
<b>Nominal Hours</b>	<b>80 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; Underlined</u></b> terms are elaborated in the Range of Variables
1. Follow OSH	1.1 <b><u>Personal Protective Equipment (PPE)</u></b> is collected and worn as required 1.2 Personal hygiene is maintained as per standard procedure 1.3 Safe work practices are followed as per workplace standard
2. Collect and Mix Raw Materials and ingredients for Bread	2.1 <b><u>Raw materials and ingredients for bread or Toast</u></b> are collected as per recipe 2.2 Flours are sieved to remove impurities as per standard procedure 2.3 Mixing machine is pre-started and checked as per SOP 2.4 Raw materials and ingredients for bread or toast are loaded as per work instruction 2.5 Mixing speed and time is maintained as per SOP 2.6 Mixing is carried out and mixing machine is switched off as per standard procedure 2.7 Dough is unloaded and machine shutdown procedure is maintained as per workplace standard
3. Collect and Mix Raw Materials and ingredients for Biscuit	3.1 <b><u>Raw materials and ingredients for biscuit</u></b> are collected as per recipe 3.2 Flours are sieved to remove impurities as per standard procedure 3.3 Mixing machine is pre-started and checked as per SOP 3.4 Raw materials and ingredients for <b><u>biscuit dough</u></b> are loaded as per work instruction 3.5 Mixing speed and time is maintained as per SOP

	<p>3.6 Mixing is carried out and biscuit dough is unloaded as per workplace standard</p> <p>3.7 Mixing machine is switched off and shutdown procedure is maintained</p>
4. Collect and Mix Raw Materials and ingredients for Cake	<p>4.1 <b><u>Raw materials and ingredients for cake</u></b> are collected as per recipe</p> <p>4.2 Flours are sieved to remove impurities as per standard procedure</p> <p>4.3 Mixing machine is pre-started and checked as per SOP</p> <p>4.4 Raw materials and ingredients for <b><u>cake batter</u></b> are loaded as per work instruction</p> <p>4.5 Mixing speed and time is maintained as per SOP</p> <p>4.6 Mixing is carried out until standard specific gravity is achieved</p> <p>4.7 Batter is unloaded as per workplace standard</p> <p>4.8 Mixing machine is switched off and shutdown procedure is maintained</p>
5. Clean and Maintain Tools, Machinery and Workplace	<p>5.1 Tools and equipment are cleaned and stored</p> <p>5.2 Workplace is cleaned and maintained as per workplace standard</p>
<b>Range of Variables</b>	
<b>Variables</b>	<b>Range (may include but not limited to):</b>
1. Personal Protective Equipment (PPE)	<p>1.1 Mask</p> <p>1.2 Hair net/ Cap</p> <p>1.3 beard net (If applicable)</p> <p>1.4 Apron</p> <p>1.5 Hand gloves</p> <p>1.6 Footwear</p>
2. Raw materials and ingredients for bread and Toast	<p>2.1 Flour</p> <p>2.2 Sugar</p> <p>2.3 Salt</p> <p>2.4 Fats and Oil</p> <p>2.5 Water</p> <p>2.6 Leavening agents (Yeast)</p> <p>2.7 Flavor</p> <p>2.8 Milk powder</p> <p>2.9 Bread improver</p>
3. Raw materials and ingredients for biscuit	<p>3.1 Flour</p> <p>3.2 Sugar</p> <p>3.3 Salt</p> <p>3.4 Fats and Oil</p>

	3.5 Water 3.6 Leavening agents (Baking powder, ABC, SBC, SAPP) 3.7 Flavor 3.8 Milk powder 3.9 Food grade color 3.10 Emulsifier 3.11 Starch 3.12 Liquid chocolate 3.13 Cream
4. Biscuit dough	4.1 Hard dough 4.2 Short dough 4.3 Soft dough
5. Raw materials and ingredients for cake	5.1 Flour 5.2 Sugar 5.3 Salt 5.4 Fats and Oil 5.5 Water 5.6 Egg 5.7 Leavening agents (Baking powder, SBC, SAPP) 5.8 Flavor 5.9 Milk powder 5.10 Food grade color 5.11 Emulsifier 5.12 Cocoa powder 5.13 Starch
6. Cake batter	6.1 Soft cake 6.1.1 Plain cake 6.1.2 Sponge cake 6.1.3 Cup cake 6.2 Dry cake
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 followed OSH 1.2 collected and Mixed Raw Materials and ingredients for Bread 1.3 collected and Mixed Raw Materials and ingredients for Biscuit

	<p>1.4 collected and Mixed Raw Materials and ingredients for Cake</p> <p>1.5 cleaned and maintained Tools, Machinery and Workplace</p>
2. Underpinning knowledge	<p>2.1 Personal Protective Equipment (PPE)</p> <p>2.2 Personal hygiene</p> <p>2.3 Safe work practices</p> <p>2.4 Raw materials and ingredients for bread or Toast</p> <p>2.5 Raw materials and ingredients for biscuit</p> <p>2.6 Raw materials and ingredients for cake</p> <p>2.7 Flours sieving</p> <p>2.8 Mixing machine</p> <p>2.9 Mixing speed and time</p> <p>2.10 Tools and equipment cleaning</p> <p>2.11 Workplace cleaning</p>
3. Underpinning skills	<p>3.1 Following OSH</p> <p>3.2 Collecting and Mixing Raw Materials and ingredients for Bread</p> <p>3.3 Collecting and Mixing Raw Materials and ingredients for Biscuit</p> <p>3.4 Collecting and Mixing Raw Materials and ingredients for Cake</p> <p>3.5 Cleaning and Maintaining Tools, Machinery and Workplace</p>
4. Required attitude	<p>4.1 Commitment to occupational health and safety</p> <p>4.2 Sincere and honest to duties</p> <p>4.3 Promptness in carrying out activities</p> <p>4.4 Eagerness to learn</p> <p>4.5 Tidiness and timeliness</p> <p>4.6 Respect of peers and seniors in workplace</p> <p>4.7 Communicate with peers and seniors in workplace</p>
5. Resource implications	<p>5.1 Workplace (simulated or actual)</p> <p>5.2 Tools, equipment and materials for bread, biscuit and cake</p> <p>5.3 Learning materials</p>
6. Methods of assessment	<p>Competency should be assessed by:</p> <p>6.1 Written test</p> <p>6.2 Demonstration</p> <p>6.3 Oral Questioning</p>

7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

<b>Unit Code and Title</b>	<b>OU-AF-IB-03-L3-EN-V1: Prepare for Baking</b>
<b>Unit Descriptor</b>	This unit covers the skills, knowledge and attitude required to Prepare for Baking. It specifically includes following OSH, Performing Molding and Proofing for Bread, Rolling and Proofing for Toast Carrying out Forming for Biscuit, Accomplishing Molding for Cake and dry cake and Cleaning and maintaining tools, equipment and workplace.
<b>Nominal Hours</b>	<b>60 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; Underlined</u></b> terms are elaborated in the Range of Variables
1. Follow OSH	1.1 Personal Protective Equipment (PPE) is collected and worn as required 1.2 Personal hygiene is maintained as per standard procedure 1.3 Safe work practices are followed as per workplace standard
2. Perform Molding and Proofing for Bread	2.1 Bread dough and molds are collected 2.2 Mold is filled with dough by maintaining standard weight 2.3 Molds are transferred to proofer as per workplace standard 2.4 Proofing is carried out as per SOP
3. Perform Rolling and Proofing for Toast	3.1 Dough for toast are collected 3.2 Rolls are prepared 3.3 Trays are filled with rolls by maintaining standard weight 3.4 Trays are transferred to proofer as per workplace standard 3.5 Proofing is carried out as per SOP
4. Carryout Forming for Biscuit	4.1 Biscuit dough is collected 4.2 <b><u>Forming</u></b> is carried out in case of hard and short dough 4.3 Forming quality is maintained by weight checking 4.4 Depositing is carried out in case of soft dough 4.5 Filling is carried out if applicable
5. Accomplish Molding for Cake and dry cake	5.1 Cake batter and molds are collected 5.2 <b><u>Mold preparation</u></b> is carried out as per workplace standard 5.3 Depositing is carried out 5.4 Mold is filled with batter by maintaining standard weight
6. Clean and maintain tools, equipment and workplace	6.1 Tools and equipment are cleaned and stored 6.2 Workplace is cleaned and maintained as per workplace standard
<b>Range of Variables</b>	
<b>Variables</b>	<b>Range</b> (may include but not limited to):
1. Forming	1.1 Hard dough

	<ul style="list-style-type: none"> <li>1.1.1 Laminating</li> <li>1.1.2 Sheeting</li> <li>1.1.3 Cutting</li> <li>1.2 Short dough <ul style="list-style-type: none"> <li>1.2.1 Dough cutting</li> <li>1.2.2 Molding</li> </ul> </li> </ul>
2. Mold preparation	<ul style="list-style-type: none"> <li>2.1 Oil spray</li> <li>2.2 Paper / Paper cup</li> </ul>
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 followed OSH</li> <li>1.2 Performed Molding and Proofing for Bread,</li> <li>1.3 Performed Rolling and Proofing for Toast</li> <li>1.4 Carried out Forming for Biscuit</li> <li>1.5 Accomplished Molding for Cake and dry cake</li> </ul>
2. Underpinning knowledge	<ul style="list-style-type: none"> <li>2.1 Personal Protective Equipment (PPE)</li> <li>2.2 Personal hygiene</li> <li>2.3 Safe work practices</li> <li>2.4 Molding and Proofing for Bread</li> <li>2.5 Rolling and Proofing for Toast</li> <li>2.6 Forming for Biscuit</li> <li>2.7 Molding for Cake and dry cake</li> </ul>
3. Underpinning skills	<ul style="list-style-type: none"> <li>3.1 Following OSH</li> <li>3.2 Performing Molding and Proofing for Bread</li> <li>3.3 Rolling and Proofing for Toast</li> <li>3.4 Carrying out Forming for Biscuit</li> <li>3.5 Accomplishing Molding for Cake and dry cake</li> <li>3.6 Cleaning and maintaining tools, equipment and workplace</li> </ul>
4. Required attitude	<ul style="list-style-type: none"> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Sincere and honest to duties</li> <li>4.3 Promptness in carrying out activities</li> <li>4.4 Eagerness to learn</li> <li>4.5 Tidiness and timeliness</li> <li>4.6 Respect of peers and seniors in workplace</li> <li>4.7 Communicate with peers and seniors in workplace</li> </ul>
5. Resource implications	<ul style="list-style-type: none"> <li>5.1 Workplace (simulated or actual)</li> <li>5.2 PPE</li> <li>5.3 Bread and biscuit dough and cake batter</li> <li>5.4 Molds</li> <li>5.5 Related tools and materials</li> </ul>

	5.6 Cleaning tools 5.7 Learning materials
5 Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	6.1 Competency assessment must be done in NSDA accredited assessment centre 6.2 Assessment should be done by a NSDA certified/nominated assessor
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

<b>Unit Code and Title</b>	<b>OU-AF-IB-04-L3-EN-V1: Perform Baking</b>
<b>Unit Descriptor</b>	This unit covers the skills, knowledge and attitude required to Perform Baking. It specifically includes Following OSH, Carrying out Baking for Bread, Completing Baking for Biscuit, Performing Baking for Cake, Performing Second Baking for Toast and Dry cake, Cleaning and Maintaining Tools, Machinery and Workplace.
<b>Nominal Hours</b>	<b>60 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; Underlined</u></b> terms are elaborated in the Range of Variables
1. Follow OSH	1.1 Personal Protective Equipment (PPE) is collected and worn as required 1.2 Personal hygiene is maintained as per standard procedure 1.3 Safe work practices are followed as per workplace standard
2. Carryout Baking for Bread	2.1 <b><u>Oven</u></b> is switched on and pre-heated as per SOP 2.2 Proofed dough molds are collected and placed in the oven 2.3 <b><u>Baking parameters</u></b> are maintained as per standard procedure 2.4 Baked breads are taken out from oven and cooling is carried out as per workplace standard 2.5 Oven is switched off and shutdown procedure is maintained 2.6 Breads are sliced as per requirement
3. Complete Baking for Biscuit	3.1 Oven is switched on and pre-heated as per SOP 3.2 Raw biscuits are collected and placed in the oven 3.3 Baking parameters are maintained as per standard procedure 3.4 Baked biscuits are taken out from oven and cooling is carried out as per workplace standard 3.5 Oven is switched off and shutdown procedure is maintained 3.6 Biscuit are stacked as per workplace standard
4. Perform Baking for Cake	4.1 Oven is switched on and pre-heated as per SOP 4.2 Batter filled molds are collected and placed in the oven 4.3 Baking parameters are maintained as per standard procedure 4.4 Baked cakes are taken out from oven and cooling is carried out as per workplace standard 4.5 Oven is switched off and shutdown procedure is maintained 4.6 Cakes are sliced or cream filled if applicable
5. Perform Second Baking for Toast and Dry cake	5.1 Oven is switched on and pre-heated for second baking 5.2 First baked toasts or sliced cake are collected and placed in the oven for second baking

	<p>5.3 Baking parameters are maintained as per standard procedure</p> <p>5.4 Second baked toasts or dry cakes are taken out from oven and cooling is carried out as per workplace standard</p> <p>5.5 Oven is switched off and shutdown procedure is maintained</p>
6. Clean and Maintain Tools, Machinery and Workplace	<p>6.1 Tools and equipment are cleaned and stored</p> <p>6.3 Workplace is cleaned and maintained as per workplace standard</p>
<b>Range of Variables</b>	
<b>Variables</b>	<b>Range</b> (may include but not limited to):
1. Oven	<p>1.1 Continuous (Tunnel) oven</p> <p>1.2 Rotary oven</p>
2. Baking parameters	<p>2.1 Time</p> <p>2.2 Temperature</p> <p>2.3 Moisture</p> <p>2.4 Appearance</p>
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <p>1.1 followed OSH</p> <p>1.2 carried out Baking for Bread</p> <p>1.3 completed Baking for Biscuit</p> <p>1.4 performed Baking for Cake</p> <p>1.5 performed Second Baking for Toast and Dry cake</p>
2. Underpinning knowledge	<p>2.1 Personal Protective Equipment (PPE)</p> <p>2.2 Personal hygiene</p> <p>2.3 Safe work practices</p> <p>2.4 Oven</p> <p>2.5 Proofed dough molds</p> <p>2.6 Baking parameters</p> <p>2.7 Bake bread</p> <p>2.8 Breads slice</p> <p>2.9 Pre baked biscuit</p> <p>2.10 Biscuit bake</p> <p>2.11 Biscuit stack</p> <p>2.12 Batter filled molds</p> <p>2.13 Cake bake</p> <p>2.14 Cake slice</p>
3. Underpinning skills	<p>3.1 Following OSH</p> <p>3.2 Carrying out Baking for Bread</p>

	3.3 Completing Baking for Biscuit 3.4 Performing Baking for Cake 3.5 Performing Second Baking for Toast and Dry cake
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Respect of peers and seniors in workplace 4.7 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace (simulated or actual) 5.2 PPE 5.3 Oven 5.4 Related Tools and materials 5.5 Learning materials
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

<b>Unit Code and Title</b>	<b>OU-AF-IB-05-L3-EN-V1: Ensure Quality and Production Efficiency</b>
<b>Unit Descriptor</b>	This unit covers the skills, knowledge and attitude required to Ensure Quality and Production Efficiency. It specifically includes Checking Quality of Baked Products and Ensuring Production Efficiency.
<b>Nominal Hours</b>	<b>30 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; Underlined</u></b> terms are elaborated in the Range of Variables
1. Check Quality of Baked Products	1.1 <b><u>Quality</u></b> of baked products are interpreted 1.2 Quality of baked products are checked 1.3 <b><u>Defects</u></b> are identified and reported 1.4 Defects are rectified if possible as per standard procedure 1.5 Forms and checklists are filled and submitted to the competent authority
2. Ensure Production Efficiency	2.1 <b><u>Efficiency</u></b> and <b><u>zero waste</u></b> concept are interpreted 2.2 Good Manufacturing Practices (GMP) of food industries are followed 2.3 <b><u>Productivity improvement techniques</u></b> are applied 2.4 <b><u>'5S' system</u></b> is implemented as per standard procedure
<b>Range of Variables</b>	
<b>Variables</b>	<b>Range</b> (may include but not limited to):
1. Quality	1.1 Appearance (Color, Shape, Size, Impression etc.) 1.2 Texture 1.3 Moisture 1.4 Taste 1.5 Smell 1.6 Weight
2. Defects	2.1 Over baked 2.2 Under baked 2.3 De-shaped 2.4 Broken 2.5 Foreign particle 2.6 Black spot
3. Efficiency	3.1 Raw materials 3.2 Time 3.3 Labor 3.4 Utility 3.5 Process 3.6 Machine 3.7 Maintenance

4. Zero waste	4.1 Reduce 4.2 Re-use 4.3 Recycle
5. Productivity improvement techniques	5.1 Raw materials handling improvements 5.2 Preventive maintenance 5.3 Process improvement 5.4 Quality improvement
6. '5S' system	6.1 Sort 6.2 Set in Order 6.3 Shine 6.4 Standardize 6.5 Sustain
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 checked Quality of Baked Products 1.2 ensured Production Efficiency
2. Underpinning knowledge	2.1 Quality of baked products 2.2 Defects 2.3 Defects rectification 2.4 Forms and checklists 2.5 Efficiency and zero waste concept 2.6 Good Manufacturing Practices (GMP) 2.7 Productivity improvement techniques 2.8 '5S' system
3. Underpinning skills	3.1 Checking Quality of Baked Products 3.2 Ensuring Production Efficiency
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Respect of peers and seniors in workplace 4.7 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace (simulated or actual) 5.2 PPE 5.3 Baked products 5.4 Forms and checklists 5.5 Learning materials
6. Methods of assessment	Competency should be assessed by: 6.1 Written test

	6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	



## Development of Competency Standard

The Competency Standards for National Skills Certificate in Industrial Baking Occupation, Level- 3 is developed by NSDA on 09, 10 and 11 December, 2025.

### List of Members

SI No	Name and Address	Position in the committee
1.	<b>Taslim Uddin</b> Instructor & Head of the Department, Food Technology Dhaka Polytechnic Institute, Dhaka Cell: 01714304348, Email: taslim.polytechnic@gmail.com	Member
2.	<b>Khan Md. Ahsan Al Salam</b> Apprenticeship Advisor ILO- BAPA A.P. Cell: 01753-146214, Email: alsalambd@gmail.com	Member
3.	<b>Md. Shamsul Haque</b> Senior manager (Production) PRAN- Mymensingh Agro Ltd. Cell: 01886093533, Email: shams.ft03@gmail.com	Member
4.	<b>Imran Hasan Shahan</b> Assistant Manager, Bakery Eurasia Food Processing (BD) Ltd. Cell: 01717484213, Email: imran.shahan@gmail.com	Member
5.	<b>Md. Sarwar Hossain</b> Deputy Manager (Production) Akij Food & Beverage Ltd. Cell: 01719977666, Email: sarowar@akijfood.com	Member
6.	<b>Radwan Ahammed</b> Assistant Manager (Production) Olympic Industries PLC Cell: 01673649307, Email: radwan540@gmail.com	Member
7.	<b>Mst. Suma Begum</b> Assistant manager Nestle Bangladesh PLC Cell: 01980193715, Email: mstsuma.begum@bd.nestle.com	Member
8.	<b>Md. Monjur Alam</b> Asst. Manager (QC-R&D) Quasem Food products ltd. Cell: 01728540744, Email: Monjur.qc@Quasemgroup.com.	Member
9.	<b>Mia Sazzad Ahamed</b> Deputy Manager (R&D) Rani Food Industries Ltd Cell: 01963400455, Email: sazzad4861@gmail.com	Member
10.	<b>Md. Shifur Rahman</b> Deputy Manager(QC), Danish Foods Ltd. Narayangonj Cell: 01823403001, Email: shifur07@gmail.com	Member
11.	<b>Syed Azharul Haque</b> Competency Standard Expert National Skills Development Authority (NSDA) Mobile: +880 1711047815, Email: azharulhaque2008@gmail.com	Member



## Validation of Competency Standard

The Competency Standards for National Skills Certificate in Industrial Baking, Level-3 is validated by NSDA on 29 December, 2025.

### List of Members

Sl No	Name and Address	Position in the committee	Signature
1.	<b>Md. Shafiqur Rahman Bhuiyan</b> Chairman, Agro Food ISC, Dhaka Mobile: 01711228747, Email: chairman.ceafs@gmail.com	Chairperson	
2.	<b>Mustaque Ahmed Bhuiyan</b> Senior Manager-Production, Akij Bakers Ltd., Tongi, Gazipur Cell: 01710167326, Email: mustaque.abl@akijbakers.io	Member	
3.	<b>Md. Ariful Islam</b> Manager, Factory & Operations, Bread & Beyond, Dhaka Cell: 01711131165, Email: ariful.islam@foodedgeltd.com	Member	
4.	<b>Md. Shariful Islam</b> Deputy General Manager (HR, Admin & Training) Rani Food Industries Ltd., Bahadurpur, Mirjapur, Gazipur Cell: 01985554111, Email: sharif-hr@ranifood.com.bd	Member	
5.	<b>Md. Imam Hossain</b> Assistant General Manager PRAN-Mymensingh Agro Ltd., Kaligonj, Gazipur Cell: 01704140773, Email: malqc@prangroup.com	Member	
6.	<b>Md. Sakhaoat Hossain</b> Factory Manager, Agro Tech Food BD Pvt. Ltd., Kaliakoir, Gazipur Cell: 01707076752, Email: md.sakhaoathossain@gmail.com	Member	
7.	<b>Md. Enamul Islam</b> Deputy Manager (PD & QC) Ispahani Foods Limited, Konabari, Gazipur Cell: 01881042602, Email: enamul.islam@mmisspahani.com	Member	
8.	<b>Mahmudul Hasan Liton</b> Manager (Production), Olympic Industries Ltd., Sonargaon, Narayangonj Cell: 01911805550, Email: mahmudul.hasan@olympicbd.com	Member	
9.	<b>Khan Md. Ahsan Al Salam</b> Apprenticeship Advisor, ILO- BAPA A.P. Cell: 880 1753-146214, Email: alsalambd@gmail.com	Member	
10.	<b>Syed Azharul Haque</b> Competency Standard Expert, National Skills Development Authority (NSDA) Cell: +880 1711047815, Email: azharulhaque2008@gmail.com	Member	



## Workshop Minutes

Government of the People's Republic of Bangladesh  
Chief Adviser's Office

National Skills Development Authority

Level: 10-11, Biniyog Bhaban,  
E-6 / B, Agargaon, Sher-E-Bangla Nagar Dhaka-1207, Bangladesh.

Email: [ec@nsda.gov.bd](mailto:ec@nsda.gov.bd)

Website: [www.nsd.gov.bd](http://www.nsd.gov.bd)

Minutes of the Competency Standard Validation Workshop on “Industrial Baking”  
Occupation.

Chairman	: Mr. Md. Shafiqur Rahman Bhuiyan, Chairman, AFISC
Date	: 29 December, 2025
Time	: 9:00 am - 5:00 pm
Place	: ISC Conference Room, NSDA, Biniyog Bhaban, Agargaon, Dhaka-1207

The Chairman welcomed all those present and started the work of the workshop. During the day-long workshop, the competency standard of Industrial Baking was reviewed and finalized in detail. The activities related to the finalized standard through validation workshop are presented below:

Serial No.	Content of validation	Whether it was appropriate		What actions have been taken if not appropriate?
		Yes	No.	
1	Name and level of occupation	Yes		The name of the occupation has been unchanged. Level of this CS was considered Level 2.
2	Nominal Hour	Yes		350 hours
3	Unit of Competency	Yes		Name of the units were validated without any change.
4	Element	Yes		Name of the Elements were validated without any change.
5	Performance Criteria		No.	Relevant performance criteria were updated for changed element and some other elements.
6	Variables		No.	Relevant variables were added, changed and updated.
7	Critical Aspect of Competence		No.	Appropriate changes have been made in the critical aspect of competency as per the change of element and performance criteria.
8	Underpinning knowledge		No.	Necessary addition, changings and refinements have been made.
9	Underpinning Skills		No.	Necessary addition, changes and refinements have been made.
10	Attitude	Yes		
11	Resources	Yes		

12	Assessment methods	Yes		
13	Others			<ul style="list-style-type: none"> <li>▪ The nominal hours of the units of competencies have been readjusted for content consideration.</li> <li>▪ Overall, the occupation has been included in Level-2 according to BNQF (1-6).</li> </ul>

Through the above activities, the Competency Standard has been finalized and validated as **“Industrial Baking” Level-3.**

Chairman  
Committee on Standard and  
Curriculum Validation,  
Chairman – AF ISC