COMPETENCY STANDARD

FOR

Baking

Level: 3

(Agro Food Sector)

Competency Standard Code: CS-AGF-BAK-L3-EN-V1

National Skills Development Authority
Prime Minister's Office
Government of the People's Republic of Bangladesh

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This Competency Standard for **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 skill 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. "**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 , 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 in the National Skills Qualification Framework (NSQF) 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 of Bangladesh Agro Processors' Association (BAPA) and Skills for Employment Investment Program (SEIP), Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in **Agro Food** Sector.

Competency standards describe the knowledge, skills 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 guides

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 – 3 in Automotive Body Painting, Agro Food Sector

Level Descriptors of NSQF (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

FPS - Foot, Pound, Second

AGFISC - Agro Food Industry Skills Councils

NSDA - National Skills Development Authority

MKS - Meter, Kilogram, Second

NSQF - National Qualifications Framework

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

---th Executive Committee (EC) Meeting of NSDA

Held on -------------------

Deputy Director (Admin)
and
Officer of Secretarial Duties for EC meeting
National Skills Development Authority

National Competency Standards for National Skill Certificate, Level 3 in Baking

Course Structure

SL	Unit Code and Title		UoC Level	Nominal Hours
Generic Competencies				**45**
1.	GU002L1V1	Apply Occupational Safety and Health (OSH) procedure in the workplace	1	15
2.	GU004L3V1	Work in a self-directed team	3	15
3.	GU005L3V1	Carry out workplace interaction in English	3	15
Sector Specific Competencies				**65**
4.	SU-AGF-01-L1-V1	Follow quality and food safety programs	1	30
5.	SU-AGF-03-L1-V1	Working in the food industry	1	20
6.	SU-AGF-04-L3-V1	Carry out precision checking and measurements	3	15
Occupation Specific Competencies				**250**
7.	OU-AGF-BAK-01-L3-V1	Perform bread baking	3	80
8.	OU-AGF-BAK-02-L3-V1	Produce cake	3	80
9.	OU-AGF-BAK-03-L3-V1	Bake and decorate Cake	3	60
10.	OU-AGF-BAK-04-L3-V1	Use Basic control system	3	30
		Total Learning Hours		**360**
		On-the Job		**160**
		Total Nominal Hours		**520**

Units & Elements at a Glance:
Generic Competencies (45 Hours)

Code	Unit of Competency	Elements of Competency	Duration (Hours)
GU002L1V1	Apply Occupational Safety and Health (OSH) procedure in the workplace	1. Identify OSH policies and procedures 2. Follow OSH procedure 3. Report hazards and risks. 4. Respond to emergencies 5. Maintain personal Well-being	15
GU004L3V1	Work in a self-directed team	1. Identify team goals and processes 2. Communicate and cooperate with team members 3. Work as a team member 4. Solve problems as a team member	15
GU005L3V1	Carry out workplace interaction in English	1. Interpret workplace communication and etiquette 2. Interpret workplace documents 3. Participate in workplace meetings and discussions 4. Practice professional ethics at workplace	15
		Total Hour	**45**

Sector Specific Competencies (65 Hours)

Code	Unit of Competency	Elements of Competency	Duration (Hours)
SU-AGF-01-L1-V1	Follow quality and food safety programs	1. Observe OSH practices 2. Practice personal hygiene and good grooming standards 3. Follow safe food handling and sanitation practices 4. Monitor quality of work outcome 5. Identify and act on quality deficits and/or food safety hazards	30

Code	Unit of Competency	Elements of Competency	Duration (Hours)
SU-AGF-03-L1-V1	Working in the food industry	1. Identify job roles and responsibilities in the food industry 2. Identify and observe OSH in the food industry. 3. Plan work activities 4. Work with others	20
SU-AGF-04-L3-V1	Carry out precision checking and measurements	1. Select the job/ component to be checked and measured 2. Select measuring instrument 3. Obtain measurements and checks 4. Record/communicate measurement and check results 5. Clean, maintain and store measuring instruments.	15
		Total Hour	**65**

Note: Row above (6. Maintain cleanliness workplace and store tools and equipment) appears as continuation of preceding table.

Occupation Specific Competencies (250 Hours)

Code	Unit of Competency	Elements of Competency	Duration (Hours)
OU-AGF-BAK-01-L3-V1	Perform bread baking	1. Observe OSH practices 2. Produce bread dough 3. Scale and mould for intermediate proof 4. Conduct final mould 5. Conduct final proof 6. Bake bread 7. Clean & maintain equipment and work area	80

OU-AGF-BAK-02-L3-V1	Produce cake	1. Observe OSH practices 2. Prepare ingredients and equipment 3. Produce cake batter 4. Produce Cake Fill 5. Clean and 6. maintain facilities, tools and equipment	80
OU-AGF-BAK-03-L3-V1	Bake and decorate Cake	1. Observe OSH practices 2. Prepare for baking and decorating cakes 3. Bake cakes 4. Prepare utensils, equipment and ingredients for decoration 5. Decorate Cakes 6. Clean and maintain facilities, tools and equipment	60
OU-AGF-BAK-04-L3-V1	Use Basic control system	1. Prepare for use control system 2. Use control devices 3. Apply basic PLC operation	30
		Total Hours	**250**

Generic Competencies

Unit Code and Title	**GU002L1V1: Apply OSH Procedure in the Workplace**
Unit Descriptor	This unit covers the knowledge, skills and attitudes (KSA) required in applying OSH procedures in the workplace. It specifically includes identifying OHS policies and procedures, following OSH procedure, reporting to emergencies, and maintaining personal well-being.
Nominal Hours	**15 Hours**
Elements of Competency	**Performance Criteria** **Bold & Underlined** terms are elaborated in the Range of Variables
1. Identify OSH policies and procedures.	1.1. **OSH policies** and **safe operating procedures** are accessed and stated 1.2. **Safety signs and symbols** 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 **Personal protective equipment (PPE)** is selected and collected as required 2.2 Personal protective equipment (PPE) is correctly used in accordance with organization OSH 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 OSH regulations
3. Report hazards and risks.	3.1 **Hazards** 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 **emergency procedures** are followed 4.3 **Contingency measures** during workplace accidents, fire and other emergencies are recognized and followed in accordance with organization procedures 4.4 Frist aid procedures is applied during emergency situations

5. Maintain personal Well-being	5.1 OSH policies and procedures are adhered to
	5.2 OSH 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 **"Fit to work" records** are updated and maintained according to workplace requirements

Range of Variables

Variables	Range (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
	2.1 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 there uses
	2.8 Personal Hygiene Practices
	2.9 OHS Awareness
3. Underpinning skills	3.1 Accessing OHS policies
	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 Environmental concerns
	4.3 Eagerness to learn
	4.4 Tidiness and timeliness

	4.5	Respect for rights of peers and seniors in workplace
	4.6	Communication with peers and seniors in workplace
5. Resource implications	The following resources must be provided:	
	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	6.1	Workplace observation
	6.2	Demonstration
	6.3	Oral questioning
	6.4	Written test
	6.5	Portfolio
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

Accreditation Requirements

Training Providers must be accredited by 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 national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	GU004L3V1: Work in a Self-Directed Team
Unit Descriptor	This unit Covered the knowledge, skills and attitude to communicate and work within a team in an interactive work environment as per the workplace standard.
Nominal Hours	**15 Hours**
Elements of Competency	**Performance Criteria** **Bold & Underlined** terms are elaborated in the Range of Variables Training Components
1. Identify team goals and processes	1.1 **Team goals** and processes are identified 1.2 Roles and responsibilities of team members are identified 1.3 Relationships within team and with other work areas are identified
2. Communicate and cooperate with team members	2.1. Effective interpersonal skills are used to interact with team members and to contribute to activities and objectives 2.2. Formal and informal forms of communication are used effectively to support team achievement 2.3. Diversity is respected and valued in team functioning 2.4. Views and opinions of other team members are understood and reflected accurately 2.5. **Workplace staff regulation** is used correctly to assist communication
3. Work as a team member	3.1 Duties, responsibilities, authorities, objectives and task requirements are identified and clarified with team 3.2 Tasks are performed in accordance with organizational and team requirements, specifications and workplace procedures 3.3 Team members support other members as required to ensure team achieves goals and requirements 3.4 Agreed reporting lines are followed using standard operating procedures
4. Solve problems as a team member	4.1 Current and potential problems faced by team are identified 4.2 Procedures for avoiding and managing problems are identified 4.3 Problems are solved effectively and in a manner that supports the team
Range of Variables	
Variable	**Range** (May include but not limited to)

1. Team goals and processes	1.1 Identifying the problem 1.2 Consider solutions 1.3 Action 1.4 Follow-up.
2. Workplace staff regulation	2.1 Organization / company's code of conduct, complaint handling / grievance policies and procedures

Evidence Guide

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 communicated and worked within a team in an interactive work environment as per workplace standard. 1.2 dealt with a range of communication/ information at one time. 1.3 made constructive contributions in workplace issues 1.4 presented information clearly and effectively in written form 1.5 asked appropriate questions 1.6 provided accurate information
2. Underpinning knowledge	2.1 Organization requirements for written and electronic communication methods 2.2 Effective verbal communication methods
3. Underpinning skill	3.1 Organizing information 3.2 Understanding and conveying intended meaning 3.3 Participating in a variety of workplace discussions 3.4 Compiling with Organization's requirements in the use of written and electronic communication methods
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 4.6 Communication with peers and seniors in workplace
5. Resource implication	5.1 Variety of Information 5.2 Communication tools 5.3 Simulated workplace
6. Methods of assessment	6.1. Written Test 6.2. Demonstration 6.3. Oral Questioning 6.4. Portfolio

7. Context of assessment	7.1 Competency assessment must be done in NSDA Accredited Assessment center
	7.2 Assessment should be done by NSDA certified/ nominated assessor

Accreditation Requirements

Training Providers must be accredited by 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 any NSQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	GU005L3V1: Carryout Workplace Interaction in English
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to carry out workplace interaction. It specifically includes interpreting workplace communication and etiquette; reading and understand workplace documents; participating in workplace meetings and discussions; and practicing professional ethics at workplace.
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria **Bold & Underlined** terms are elaborated in the Range of Variables Training Components
1. Interpret workplace communication and etiquette	1.1 Workplace code of conducts are interpreted as per organizational guidelines 1.2 Appropriate lines of communication are maintained with supervisors and colleagues 1.3 Workplace interactions are conducted in a **courteous manner** to gather and convey information 1.4 Questions about routine **workplace procedures and matters** are asked and responded as required
2. Interpret Workplace Documents	2.1 Workplace documents are interpreted as per standard. 2.2 Assistance is taken to aid comprehension when required from peers / supervisors 2.3 Visual information / symbols / signage's are understood and followed 2.4 Specific and relevant information are accessed from **appropriate sources** 2.5 Appropriate medium is used to transfer information and ideas
3. Participate in workplace meetings and discussions	3.1 Team meetings are attended on time and followed meeting procedures and etiquette 3.2 Own opinions are expressed and listened to those of others without interruption 3.3 Inputs are provided consistent with the meeting purpose and interpreted and implemented meeting outcomes
4. Practice professional ethics at workplace	4.1 Responsibilities as a team member are demonstrated and kept promises and commitments made to others 4.2 Tasks are performed in accordance with workplace procedures 4.3 Confidentiality is respected and maintained

	4.4 Situations and actions considered inappropriate or which present a conflict of interest are avoided
Range of Variables	
Variable	**Range** (may include but not limited to):
1. Courteous Manner	1.1 Effective questioning 1.2 Active listening 1.3 Speaking skills
2. Workplace Procedures and Matters	2.1 Notes 2.2 Agenda 2.3 Simple reports such as progress and incident reports 2.4 Job sheets 2.5 Operational manuals 2.6 Brochures and promotional material 2.7 Visual and graphic materials 2.8 Standards 2.9 OSH information 2.10 Signs
3. Appropriate Sources	3.1 HR Department 3.2 Managers 3.3 Supervisors
Evidence Guide	
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 workplace code of conducts is as per organizational guidelines 1.2 maintained workplace documents as per standard 1.3 followed workplace instructions and symbols 1.4 followed and implemented meeting outcomes
2. Underpinning Knowledge	2.1 Workplace communication and etiquette 2.2 Workplace documents, signs and symbols 2.3 meeting procedure and etiquette
3. Underpinning Skills	3.1 Interpreting performance of workplace communication and etiquette 3.2 Interpreting workplace instructions and symbol 3.3 Interpreting workplace code of conducts is as per organizational guidelines 3.4 Interpreting workplace documents as per standard 3.5 Interpreting and implementing meeting outcomes

4. Underpinning Attitudes	4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace
5. Resource Implications	The following resources must be provided: 5.1 Relevant tools, Equipment, software and facilities needed to perform the activities. 5.2 Required learning materials.
6. Methods of Assessment	Methods of assessment may include but not limited to: 6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio
7. Context of Assessment	7.1 Competency assessment must be done in a NSDA accredited assessment centre 7.2 Assessment should be done by an NSDA certified/ nominated assessor
Accreditation Requirements	
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 any NSQF qualification must accredit training Providers. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Sector Specific Competencies

Unit Code and Title	SU-AGF-01-L1-V1: **Follow quality and food safety programs**
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to follow food quality and safety programs in the workplace. It includes the tasks of observing OSH practices, practicing personal hygiene and good grooming standards, following safe food handlingand sanitation practices, monitoring quality of work outcome, identifying and acting on quality deficits and/or food safety hazards, maintaining cleanliness workplace and storing tools and equipment
Nominal Hours	**30 hours**
Elements of Competency	**Performance Criteria** **Bold** and **Underlined** terms are elaborated in the Range of Variable
1. Observe OSH practices	1.1 Housekeeping standards are maintained in the workplace following OSH requirements. 1.2 **Personal hygiene** is maintained and **PPE** worn as per OSH requirements. 1.3 Equipment is cleaned for production and hygiene requirements.
2. Practice personal hygiene and good grooming standards	2.1. Personal hygiene and good grooming is practiced in line with workplace health and safety requirements. 2.2. Health conditions and/or illness are reported as required by the food safety program. 2.3. Clothing and footwear is appropriate for the food handling task and meets the requirements of the food safety program. 2.4. Movement around the workplace complies with the food safety program.
3. Follow safe food handling and sanitation practices	3.1. **Food handling requirements** are identified. 3.2. Safe food handling practices are followed in line with workplace sanitation regulations and the foodsafety code. 3.3. The workplace is maintained in a clean and tidy order to meet workplace standards.

4. Monitor quality of work outcome	4.1 **Quality requirements** are identified as per product 4.2 Inputs are inspected to confirm capability to meet quality requirements. 4.3 Work is conducted and monitored to produce required outcomes.
5. Identify and act on quality deficits and/or food safety hazards	5.1 **Processes, practices or conditions** that are not consistent with quality standards or food safetyprogram are identified. 5.2 Quality variations and/or **food safety** hazards are rectified or removed as per workplace requirement 5.3 Quality variations and/or food safety outside the scope of individual responsibility are reported to appropriate personnel
6. Maintain cleanliness workplace and store tools and equipment	6.1 Work area, materials, equipment and product are routinely checked to ensure compliance with quality and/or food safety requirements. 6.2 Workplace is cleaned as per requirement 6.3 Equipment are cleaned and stored as per workplace procedure 6.4 5S housekeeping is followed as per workplace standard

Range of Variables

Variable	Range (May include but not limited to)
1. Personal hygiene	1.1 Take Regular shower. 1.2 Wash your hands frequently. 1.3 Maintain oral hygiene practices. 1.4 Trim your nails and wash your hairs. 1.5 Clean your nose and ears. 1.6 Wear fresh and warm clothes. 1.7 Food hygiene is important too 1.8 Use sanitizer where necessary
2. PPE (Personal Protective Equipment)	2.1 Apron 2.2 Chef Jacket 2.3 Hand Gloves 2.4 Hair net 2.5 Hair cap 2.6 Face mask 2.7 Safety shoe 2.8 Shoe cover 2.9 Ear plug 2.10 Beard net

3. Food handled and stored	3.1 Raw materials
	3.2 Ingredients
	3.3 Consumables
	3.4 Part-processed product
	3.5 Finished product
	3.6 Cleaning materials
4. Processes, practices or conditions	4.1 Methods of receiving and storing food
	4.2 Food preparation
	4.3 Cooking
	4.4 Holding
	4.5 Cooling
	4.6 Chilling and reheating
	4.7 Packaging
	4.8 Disposal
5. Quality requirement	5.1 Texture
	5.2 Taste
	5.3 Color
	5.4 Flavor
	5.5 Appearance
	5.6 Thickness
	5.7 Weight
	5.8 Moisture
	5.9 Baking time
	5.10 Temperature
6. Food safety	6.1 Failure to check delivery temperatures of potentially hazardous chilled food;
	6.2 Failure to place temperature-sensitive food in temperature-controlled storage conditions promptly
	6.3 Failure to wash hands when required
	6.4 Use of cloths for unsuitable purposes
Food Safety Program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the Food Safety Standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures. Food safety information may be provided in a food safety program and/or in Standard Operating Procedures (SOPs), specifications, log sheets and written or verbal instruction. Appropriate clothing and footwear depends on work requirements. It should be designed to ensure that the body and clothing itself does not contaminate food or surfaces likely to come into contact with food.	

A food safety hazard is a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect. Examples are bacteria, chemical additives, plastic and glass.

Responsibility for monitoring food safety, identifying breaches in food safety procedures and taking corrective action relates to own tasks and responsibilities and occurs in the context of the food safety program in the workplace.

Responsibility for monitoring quality relates to immediate work responsibilities and may require visual inspections and checks

Monitoring typically involves visual inspection or checks at control points. Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) control points.

Responding to out-of-specification or unacceptable outcomes at this level typically involves exercising judgment within clearly defined boundaries and reporting/referring to others.

Minimum personal hygiene requirements are specified by the workplace food safety program and at a minimum must at least meet legal requirements as set out in the Food Safety Standard.

Evidence Guide

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 Maintained Housekeeping standards in the workplace following OSH requirements. 1.2 Maintained Personal hygiene and worn PPE as per OSH requirements. 1.3 Cleaned Equipment and work place for production and hygiene requirements. 1.4 Rectified or removed Quality variations and/or food safety hazards within the level of responsibility 1.5 Monitored quality of workoutcome 1.6 Identified and acted on quality deficits and/or food safety hazards
2. Underpinning knowledge	2.1 personal hygiene 2.2 Rules and regulations to produce quality and safety in food 2.3 Control measures for food safety 2.4 Food safety hazards 2.5 Cleaning, sanitation and waste storage and disposal practices 2.6 Food safety procedures 2.7 Monitor quality of work outcome 2.8 Hazardous events 2.9 Job roles, responsibilities and compliance

3. Underpinning skill	3.1. using the appropriate PPE. 3.2. Interaction skills (teamwork, networking, interpersonal skills, etc. 3.3. practicing personal hygiene and good grooming in line with workplace health and safety requirements. 3.4. identifying food rules and regulations, food grade preservatives and food additives 3.5. controlling l the measures for minimizing food contamination for food safety 3.6. Controlling hazards 3.7. performing waste collection, recycling, handling and disposal. 3.8. performing food safety procedures 3.9. performing food safety and quality responsibilities and requirements relating to the work area. 3.10. responding quickly to the emergency situation
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	The following resources must be provided: 5.1 Workplace 5.2 equipment and facilities appropriate to processes or activity. 5.3 Materials relevant to the proposed activity. 4.6 Equipment and outfits appropriate in applying safety measures.
6. Methods of assessment	6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning 6.4 Written test 6.5 Portfolio
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 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 national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	SU-AGF-03-L1-V1: **Work in the food Industry**
Unit Descriptor	This unit specifies the knowledge, skills and attitude required to identify roles and responsibilities and work in the food industry. 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
Nominal Hours	**20 hours**

Elements of Competency	Performance Criteria **Bold and Underlined** terms are elaborated in the Range of Variable
1. Identify job roles and responsibilities in the food industry	1.1 Job roles and responsibilities in the food industry are identified. 1.2 Relationships within the food industry employees are identified.
2. Identify and observe OSH in the food industry.	2.1. **PPE** used in the food industry are identified and worn. 2.2. Safe work practices are followed when using equipment in the work environment.
3. Plan work activities	3.1. Common goals, objectives and tasks are identified and clarified with appropriate persons. 3.2. Individual tasks are determined and agreed on according to workplace environment.
4. Work with others	4.1 **Effective interpersonal skills** are applied to interact with others and to contribute to activities and objectives. 4.2 Assigned tasks are performed in accordance with job requirements, Work requirements are confirmed with colleagues.
Range of Variables	
Variable	**Range** (May Includes but not limited to)
1. PPE	1.1 Apron 1.2 Chef Jacket 1.3 Hand Gloves 1.4 Hair net 1.5 Hair cap 1.6 Face mask 1.7 Safety shoe 1.8 Shoe cover

	1.9 Ear plug 1.10 Beard net
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.

Evidence Guide
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet therequirements 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 skill	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	The following resources must be provided: 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	6.1	Workplace observation
	6.2	Demonstration
	6.3	Oral questioning
	6.4	Written test
	6.5	Portfolio
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

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Unit Code and Title	SU-AGF-04-L3-V1: **Carry Out Precision Checking and Measurements**
Unit Descriptor	This unit specifies the knowledge, skills and attitude required to identify roles and responsibilities and work in the food industry. It includes the tasks of selecting the job/ component to be checked and measured, selecting measuring instrument, obtaining measurements and checking, recording/communicating measurement and check results, cleaning, maintaining and storing measuring instruments.
Nominal Hours	**15 hours**
Elements of Competency	**Performance Criteria** **Bold and Underlined** terms are elaborated in the Range of Variable
1. Select the job/ component to be checked and measured	1.1 Job/equipment /device is selected for measuring and checking 1.2 Required specifications/ingredients/quantity are determined in accordance with Recipe 1.3 Required physical condition is identified in accordance with process flow diagram 1.4 Required specifications is identified in accordance with process flow diagram 1.5 Process flow diagram is used to select the measuring instruments.
2. Select measuring instrument	2.1 Appropriate measuring instruments are selected in accordance with job requirement. 2.2 **Measuring instruments** are identified and checked 2.3 Applications of measuring instruments are determined. 2.4 Usability and accuracy of measuring device is checked and verified. 2.5 Weighing and measuring device is prepared for measurement. 2.6 Fits, Tolerance, clearance and limits are identified according to job requirements.
3. Obtain measurements and checks	3.1 Measurements are obtained using appropriate measuring instrument. 3.2 **Systems of measurements** are identified and converted where necessary. 3.3 Measurement is kept accurately in accordance to specification. 3.4 Measurement is checked against job requirement 3.5 Physical conditions are checked in accordance with job requirements

4. Record/communicate measurement and check results	4.1 Measurements of voltage, current and power ratings are recorded in accordance with workplace procedure 4.2 Measurements are interpreted, recorded and communicated to the appropriate authority
5. Clean, maintain and store measuring instruments.	5.1 Dust and dirt are removed from the measuring instruments 5.2 Condition of measuring instruments are checked 5.3 Measuring instruments are checked and calibrated 5.4 Measuring instruments are stored in accordance with workplace procedure.

Range of Variables

Variable	Range (May Includes but not limited to)
1. Measuring instruments	1.1 Weighing scale 1.2 Measuring scale 1.3 Digital measuring scale 1.4 PLC based measuring scale 1.5 Measuring cup 1.6 Measuring spoon 1.7 Digital thermometer 1.8 Pyrometer 1.9 Hygrometer 1.10 Refractometer 1.11 Infrared thermometer 1.12 Luxmeter 1.13 Load shell
2. Systems of measurements	2.1 FPS 2.2 MKS 2.3 CGS 2.4 SI Unit

Evidence Guide

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 Selected Job/equipment /device for measuring and checking 1.2 Identified measuring instruments 1.3 Identified fits, tolerance, clearance and limits are identified according to job requirements. 1.4 Kept measurement accurately in accordance to specification 1.5 Checked measurement is checked against job requirement 1.6 Checked and measured ingredients using appropriate checking instrument
2. Underpinning knowledge	2.1 Difference between measuring and checking 2.2 Types of measuring instruments and their applications

	2.3	Types of checking tools and their applications
	2.4	Specifications of instruments
	2.5	Method, procedure and techniques when taking Measurements
	2.6	Methods, procedures and techniques when checking
	2.7	Methods, procedures and techniques during batch preparation
	2.8	Preventive maintenance for measuring instruments and tools
	2.9	Calibration and adjustment procedures for measuring instruments and checking tools
3. Underpinning Skills	3.1	Checking physical conditions using appropriate checking tool
	3.2	Measuring specifications and quantity of the components in accordance with the diagram
	3.3	Interpreting and communicating measurement, specifications and standards
	3.4	Checking condition of measuring instruments,
	3.5	calibrating and storing in accordance with workplace procedure
	3.6	Applying techniques to measuring and checking
4. Underpinning Attitudes	4.1	Commitment to occupational safety and health
	4.2	Communication with peers, sub-ordinates and seniors in workplace.
	4.3	Promptness in carrying out activities.
	4.4	Tidiness and timeliness.
	4.5	Respect of peers, sub-ordinates and seniors in workplace.
	4.6	Environmental concern.
5. Resource implications	The following resources must be provided:	
	5.1	Workplace
	5.2	Different types of measuring instruments and devices
	5.3	Tools, equipment and facilities appropriate to processes or activity.
	5.4	Stand by firefighting equipment
	5.5	Materials relevant to the proposed activity.
	5.6	Equipment and outfits appropriate in applying safety measures.
	5.7	Relevant manuals, codes, standards and reference material.
6. Methods of assessment	6.1	Workplace observation
	6.2	Demonstration
	6.3	Oral questioning
	6.4	Written test
	6.5	Portfolio

| 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

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Occupation Specific Competencies

Unit Code and Title	OU-AGF-BAK-01-L3-V1: Perform Bread Baking
Unit Descriptor	This unit covers the knowledge, skills and attitude required to perform bread baking. It includes the tasks of observing OSH practices, produce bread dough, scale and mould for intermediate proof, conduct final mould, conduct final proof, bake bread clean & maintain equipment and work area.
Nominal Hours	80 Hours
Elements of Competency	Performance Criteria **Bold and Underlined** terms are elaborated in the Range of Variables.
1. Observe OSH practices	1.1 Housekeeping standards are maintained in the workplace. 1.2 Occupational Safety and Health (OSH) is followed according to workplace requirements. 1.3 Personal hygiene is maintained and **Personal Protective Equipment (PPE)** is worn as per job requirements. 1.4 **Tools and Equipment** are cleaned for production and hygiene requirements.
2. Produce bread dough	2.1 **Ingredients** are selected, measured and weighed according to recipe to make bread dough. 2.2 Dough mixing equipment is set and made ready to mix the dough. 2.3 Ingredients are poured into the mixer. 2.4 Mixing process is operated and monitored as per job requirement 2.5 Unacceptable dough is identified and rectified. 2.6 Corrective action is taken as required to ensure dough meets requirements. 2.7 Unacceptable dough is reported.
3. Scale and mould for intermediate proof	3.1 Dough is scaled for different types of bread. 3.2 Dough is moulded to provide initial shape. 3.3 Fruits, nuts etc. are added if required by recipe. 3.4 Errors in scaled and moulded dough are identified and removed or rectified, considering all factors including the **other variables.**
4. Conduct final mould	4.1 Dough is moulded to provide final shape. 4.2 Dough is placed in tins or on baking trays as required. 4.3 Dough may be manually or mechanically moulded or shaped using rounding and moulding equipment.

5. Conduct final proof	5.1 Conducive conditions including the temperature and time are maintained.
	5.2 Errors in final proofed dough is identified, removed or rectified
	5.3 Final proof may be wet or dried.
	5.4 **Quality characteristics** of final product is maintained as per job requirement
	5.5 Finishing of final proof is done by applying **standard methods**
6. Bake bread	6.1 Oven is preheated according to product specification.
	6.2 Ovens are operated for baking according to product specifications
	6.3 Bread is baked according to food safety and quality requirements.
	6.4 Under baked or over baked products are identified and rectified.
	6.5 Baking process is monitored as per **work requirement**.
7. Clean & maintain equipment and work area	7.1 Equipment and production area are cleaned to meet hygiene requirements.
	7.2 Maintenance requirements are identified and reported according to workplace requirements.
	7.3 Waste is disposed of according to environmental procedures.

Range of Variables

Variables	Range (may include but not limited to):
1. Personal Protective Equipment (PPE)	1.1 Chef hat/ hair net
	1.2 Chef jacket
	1.3 Apron
	1.4 Food-graded hand gloves
	1.5 Safety shoes
	1.6 Beard net
	1.7 Kitchen towel
	1.8 Face mask
2. Tools and Equipment	2.1 Baking trays,
	2.2 Bowls
	2.3 Brush
	2.4 Electric oven
	2.5 Gas oven
	2.6 Knife
	2.7 Measurement tools
	2.8 Mixers
	2.9 Moulding and rounding equipment,

	2.10 Proofing/ fermentation cabinet. 2.11 Refrigerator 2.12 Scissors 2.13 Scraper 2.14 Sieves 2.15 Weighing equipment 2.16 Working tables

3. Ingredients	3.1 Bread improver
	3.2 Dairy products
	3.3 Dry fruit
	3.4 Eggs
	3.5 Flour (white, brown, and whole meal)
	3.6 Gluten free flour
	3.7 Herbs
	3.8 Milk powder
	3.9 Nuts
	3.10 Oil
	3.11 Salt
	3.12 Seeds
	    ▪ Poppy seeds
	    ▪ Multigrain
	    ▪ Sea same
	    ▪ Black cumin
	    ▪ Pumpkin seeds
	3.13 Shortening
	3.14 Spices and oats
	3.15 Sugar
	3.16 Vegetables
	3.17 Water
	3.18 Wheat grains
	3.19 Yeast

4. Other variables	4.1 Other variable for bread dough
	    ▪ The effect of dough shape/size on the final product.
	    ▪ Purpose and time required to allow dough to develop.
	    ▪ Required characteristics of proofed dough such as size, height and appearance.
	4.2 Other variable for scale and mould
	    ▪ Time, temperature and humidity on baking
	    ▪ Dough characteristics such as shape/size and skin formation affect the final product
	    ▪ The effect of yeast activity on the final product

5. Quality characteristics of final product	5.1 Volume 5.2 Grain 5.3 Texture 5.4 Crumb colour 5.5 Crust formation and colour
6. Standard Method	6.1 Dusting 6.2 Cutting 6.3 Spraying 6.4 Applying toppings
7. Work requirement	7.1 Steam injection 7.2 Crust 7.3 Colour 7.4 Sheen 7.5 Uniformity of shape and size

Evidence Guide

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 requires evidence that the candidate: 1.1 Cleaned equipment before and after production; 1.2 Measured the ingredients as per recipe; 1.3 Followed the proper mixing process; 1.4 Identified and rectified unacceptable dough 1.5 Moulded Dough 1.6 Maintained Quality characteristics of final product 1.7 Did finishing of final proof is done 1.8 Baked bread 1.9 Disposed waste according to workplace procedures.
2. Underpinning knowledge	2.1 Basic principles of bread making 2.2 Types of bread 2.3 types of dough 2.4 Ingredient characteristics and purpose in dough. 2.5 Comprehend flour quality and the components of wheat flour. 2.6 Ingredients to prepare bread 2.7 Unacceptable dough 2.8 Corrective action 2.9 Scaling Dough 2.10 Moulding Dough 2.11 Errors in scaling and moulding dough 2.12 Errors in final proofed dough 2.13 Quality characteristics of final product 2.14 Necessity of preheating oven 2.15 Under baked or over baked products

	2.16 Settings, operating requirements and safety features of equipment used.
	2.17 Relevant hazards and controls.
	2.18 Waste handling and cleaning procedures.
3. Underpinning skills	3.1 Communication skills in dealing with superiors and peers
	3.2 Calculation skills
	3.3 Confirming equipment is clean and ready for operation.
	3.4 Techniques to produce bread dough, scale and mould for intermediate proof, conduct final mould conduct final proof and baking bread
	3.5 Weighing, scale or meter ingredients as required to the mixer in the required sequence.
	3.6 Setting mixing equipment to meet recipe requirements.
	3.7 Adjusting water temperature to meet final finished dough temperature requirements
	3.8 Cleaning equipment and utensils to meet hygiene standards.
	3.9 Maintaining workplace records as required.
	3.10 Setting up the proofing equipment to meet recipe requirements.
	3.11 Monitoring the temperature and time to meet finished dough requirements.
	3.12 Transferring ingredients in the required sequence,
	3.13 Mixing, dividing and shaping as required.
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 Adequate workplaces
	5.2 Materials for Baking Technician work
	5.3 Hand tools and power tools appropriate to Baking Technician work
	5.4 Information and documentation
	5.5 Product specifications
	5.6 Manual, Codes, Standards and reference materials
6. Methods of assessment	6.1 Workplace observation
	6.2 Demonstration
	6.3 Oral questioning
	6.4 Written test

	6.5	Portfolio
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

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Unit Code and Title	OU-AGF-BAK-02-L3-V1: **Produce Cake**
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to produce cake. It includes the tasks of observing OSH practices, preparing ingredients and equipment, producing cake batter, producing cake fill and cleaning and maintaining facilities, tools and equipment.
Nominal Hours	**80 Hours**
Elements of Competency	**Performance Criteria** **Bold & Underlined** terms are elaborated in the Range of Variables
1. Observe OSH practices	1.1 Housekeeping standards are maintained in the workplace. 1.2 Occupational Safety and Health (OSH) is followed according to workplace requirements. 1.3 Personal hygiene is maintained and **Personal Protective Equipment (PPE)** is worn as per job requirements. 1.4 **Tools, utensils and equipment** are prepared as per requirement.
2. Prepare ingredients and equipment	2.1 Necessary **ingredients** are selected, measured and weighed according to recipe to product requirement 2.2 Equipment is checked to confirm readiness for use. 2.3 Batter mixing equipment is set and operated to mix the batter. 2.4 Ingredients are prepared for use in fillings following standard procedure
3. Produce cake batter	3.1 Ingredients are poured into the mixer. 3.2 Mixing process is monitored following standard procedure. 3.3 Unacceptable cake batter is identified and rectified. 3.4 Corrective action taken as required to ensure cake batter requirements. 3.5 Unacceptable cake batter is reported.
4. Produce Cake Fill	4.1 Cake fill is produced according to recipe requirements. 4.2 Raw and cooked fillings must be checked before use. 4.3 Unacceptable ingredients or fillings are identified and rectified.
5. Clean and maintain facilities, tools and equipment	5.1 Facilities are cleaned and maintained as per SOP. 5.2 Tools, utensils and equipment are cleaned and sanitized.

Variable	Range (may include but not limited to):
	5.3 Tools utensils and equipment are stored in selected areas.

Range of Variables

Variable	Range (may include but not limited to):
1. Personal Protective Equipment (PPE)	1.1 Chef hat/ hair net 1.2 Chef jacket 1.3 Apron 1.4 Food-graded hand gloves 1.5 Safety shoes 1.6 Beard net 1.7 Kitchen towel 1.8 Face mask 1.9 Face shield
2. Tools, utensils and equipment	2.1 refrigerator & freezer 2.2 Cake slicer 2.3 Cake divider 2.4 Cake moulds 2.5 Cooking range 2.6 Cutting board 2.7 Dough scrapers 2.8 Flour scoop 2.9 Fry pan 2.10 Garbage bin 2.11 Cake Knives 2.12 Measuring cup 2.13 oven 2.14 Mixer 2.15 Mixing bowl 2.16 Sauce pan 2.17 Scale 2.18 Sieves, 2.19 Baking trays, 2.20 Turn table 2.21 Utensils rack 2.22 Whisk 2.23 spoon 2.24 Electric hand bitter
3. Ingredients:	3.1 flour 3.2 Sugar 3.3 Eggs 3.4 Shortening 3.5 Flavour, 3.6 Fruit, 3.7 Corn flour, 3.8 Milk,

	3.9 Pastry cream
	3.10 Butter cream, Fresh cream
	3.11 Jam,
	3.12 Food grade colour,
	3.13 chocolate
	3.14 Sugar sprinkle
	3.15 Other ingredients as per recipe
	3.16 Cocoa powder

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 aspect of competency	Assessment required evidences that the candidate:
	1.1 Followed Occupational Safety and Health (OSH) according to workplace requirements.
	1.2 Selected, measured and weighed necessary ingredients
	1.3 Set and operated batter mixing equipment
	1.4 Monitored mixing process
	1.5 Identified and rectified unacceptable cake batter
	1.6 Identified and rectified unacceptable ingredients or fillings cleaned and sanitized Tools, utensils and equipment.
2. Underpinning knowledge	2.1 Basic principles of cake and sponge making.
	2.2 Basic principles of filling preparation.
	2.3 Causes of variation and corrective action required.
	2.4 Contamination (including cross-contamination) risks associated with ingredients/processes used.
	2.5 Cooking times and temperatures.
	2.6 Differences in filling types for different product types.
	2.7 Factors affecting sponge making.
	2.8 Ingredient characteristics and purpose in filling.
	2.9 Ingredient characteristics and purpose in the final product.
	2.10 Ingredients storage requirements.
	2.11 Methods used to confirm accuracy of measuring equipment used.
	2.12 Methods used to prepare cake batter.
	2.13 Methods used to prepare fillings in the workplace.
	2.14 OHS hazards and controls.
	2.15 Physical and chemical methods used to aerate batter.
	2.16 Quality characteristics and uses of fillings.
	2.17 Significance of factors such as temperature of batter on final product.

	2.18	Storage requirements for prepared fillings.
	2.19	Time and temperature requirements relating to thawing,
	2.20	Waste handling and cleaning and procedures.
3. Underpinning skills	3.1	Accessing workplace information to identify recipe requirements.
	3.2	Cleaning equipment and utensils to meet hygiene standards.
	3.3	Confirming condition, type, quality and quantity of ingredients.
	3.4	Applying techniques of Deposit, extrude or spread batter to meet product and volume/weight requirements.
	3.5	Applying techniques of Identify batter that does not meet quality requirements and
	3.6	Applying techniques of Taking necessary corrective action
	3.7	Maintaining work area to meet housekeeping standards.
	3.8	Maintaining workplace records as required.
	3.9	Applying techniques of Operating and monitoring the mixing process.
	3.10	Applying techniques of Preparing tins/trays, liners and papers as required.
	3.11	Selecting and fitting appropriate attachments.
	3.12	Applying techniques of Setting mixing equipment to meet production requirements.
	3.13	Applying techniques of Setting mixer times and speeds.
	3.14	Applying techniques of Settings, operating requirements and safety features of equipment used.
	3.15	Weighing, scaling or metering ingredients as required.
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		The following resources must be provided:
	5.1	Workplace
	5.2	Tools, 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 drawings, manuals, codes, standards and reference material.
6. Methods of assessment	6.1	Workplace observation
	6.2	Demonstration
	6.3	Oral questioning
	6.4	Written test
	6.5	Portfolio
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

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Unit Code and Title	**OU-AGF-BAK-03-L3-V1: Bake and Decorate Cake**
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to Bake and Decorate Cake It includes the tasks of observing OSH practices, preparing for baking and decorating cakes, baking cakes, preparing utensils, equipment and ingredients for decoration, decorating cakes and cleaning and maintaining facilities, tools and equipment.
Nominal Hours	**60 Hours**
Elements of Competency	**Performance Criteria** **Bold & Underlined** terms are elaborated in the Range of Variables
1. Observe OSH practices	1.1 Housekeeping standards are maintained in the workplace. 1.2 Occupational Safety and Health (OSH) is followed according to workplace requirements. 1.3 Personal hygiene is maintained and **Personal Protective Equipment (PPE)** is worn as per job requirements. 1.4 **Tools, utensils and equipment** are prepared as per requirement.
2. Prepare for baking and decorating cakes	2.1 Prepared cake batter is poured into tins, finished and arranged to meet quality and product requirements. 2.2 Ovens are operated to meet required output as per instruction manual. . 2.3 Washes and/or glazes are applied before baking as required using sugar syrup 2.4 **Ingredients** are confirmed, arranged and measured to meet product requirements. 2.5 Utensils and equipment are checked to confirm readiness for use. 2.6 Decorations are purchased or made ready to decorate cakes.
3. Bake cakes	3.1 Cake/s are baked according to food safety and quality requirements. 3.2 **Monitoring of baking process** is done as per requirement. 3.3 Under baked and over baked product is identified and rectified. 3.4 Baked products are removed from oven and cooled to meet required temperature.

		3.5	3.4 Washes and/or glazes are applied after baking as required using sugar syrup
4.	Prepare utensils, equipment and ingredients for decoration	4.1 4.2 4.3 4.4	Ingredients are confirmed and arranged to meet product requirements. Utensils and equipment are checked to confirm readiness for use. Ingredients are measured for recipe requirements Decorations are purchased or made ready to decorate cakes.
5.	Decorate Cakes	5.1 5.2 5.3	**Decorating materials** are applied according to design specifications. **Typical decorating techniques** are applied as per job requirement Unacceptable ingredients are identified and rectified.
6.	Clean and maintain facilities, tools and equipment	6.1 6.2 6.3	Facilities are cleaned and maintained as per SOP. Tools, utensils and equipment are cleaned and sanitized. Tools utensils and equipment are stored in selected areas.
Range of Variables			
Variable		**Range** (may include but not limited to):	
1.	Personal Protective Equipment (PPE)	1.1 Chef hat/ hair net 1.2 Chef jacket 1.3 Apron 1.4 Food-graded hand gloves 1.5 Safety shoes 1.6 Beard net 1.7 Kitchen towel 1.8 Face mask 1.9 Face shield	
2.	Tools, utensils and equipment	2.1 refrigerator & freezer 2.2 Cake divider 2.3 Cake slicer 2.4 Cake moulds, 2.5 Cooking range 2.6 Cutting board 2.7 Garbage bin 2.8 Knives 2.9 can opener 2.10 baking oven 2.11 Measuring cup 2.12 Electric Egg bitter 2.13 Mixer	

	2.14 Mixing bowl
	2.15 Piping bag
	2.16 Sauce pan
	2.17 Scale
	2.18 spoon
	2.19 Sieves,
	2.20 Baking Trays,
	2.21 Turn table
	2.22 Utensils rack
	2.23 Weighing equipment and measuring tools,
	2.24 Whisk
	2.25 Piping bags and nozzles
	2.26 Mixing bowls and application utensils such as spatulas and palette knives.
3. Ingredients:	3.1 Pastry cream,
	3.2 Butter cream,
	3.3 Fresh cream,
	3.4 Fruit,
	3.5 Jam,
	3.6 Food grade colour,
	3.7 chocolate
	3.8 Sugar syrup
	3.9 Other glazing ingredients as per recipe.
4. Monitoring baking process	4.1 Colour
	4.2 Appearance
	4.3 Time
	4.4 Shape
5. Decorating materials	5.1 Cake ornaments and decorations,
	5.2 Fresh,
	5.3 Mock or butter cream,
	5.4 Fudge and other icing sugar,
	5.5 Fondant,
	5.6 Chocolate,
	5.7 Glazes,
	5.8 Fruit,
	5.9 Custard,
	5.10 Mousses and similar fillings
	5.11 Coverings.
6. Typical decorating techniques	6.1 Flooding,
	6.2 Icing or masking cakes,
	6.3 Finishing cake sides,
	6.4 Piping to produce decorative
	6.5 Finishes and write simple messages and placement
	6.6 Arrangement of ornaments and decorations.
	6.7 Applying the final layer of materials to finish a product.

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 aspect of competency	1.1 Assessment required evidences that the candidate:
	1.2 Followed OSH.
	1.3 Poured prepared cake batter into tins,
	1.4 Applied washes and/or glazes before baking
	1.5 Confirmed, arranged and measured ingredients to meet product requirements
	1.6 Baked cake/s according to food safety and quality requirements
	1.7 Did monitoring of baking process
	1.8 Identified and rectified under baked and over baked product
	1.9 Applied washes and/or glazes after baking
	1.10 Are checked utensils and equipment to confirm readiness for use.
	1.11 Applied decorating materials
	1.12 Identified and rectified unacceptable ingredients
	1.13 Cleaned and maintained facilities as per SOP.
	1.14 Cleaned tools, utensils and equipment
2. Underpinning knowledge	2.1 Basic principles of cake and sponge making.
	2.2 Basic principles of filling preparation.
	2.3 Causes of variation and corrective action required.
	2.4 Contamination (including cross-contamination) risks associated with ingredients/processes used.
	2.5 Cooking times and temperatures.
	2.6 Factors affecting sponge making.
	2.7 Ingredient characteristics and purpose in the final product.
	2.8 Ingredients storage requirements.
	2.9 Methods used to confirm accuracy of measuring equipment used.
	2.10 Methods used to prepare cake batter.
	2.11 Methods used to prepare fillings in the workplace.
	2.12 Reconstituting dry ingredients.
	2.13 Settings, operating requirements and safety features of equipment used.
	2.14 Significance of factors such as temperature of batter on final product.
	2.15 Storage requirements for prepared fillings.
	2.16 Time and temperature requirements relating to thawing, waste handling and cleaning and procedures.

3. Underpinning skills	3.1 Accessing workplace information to identify recipe requirements.
	3.2 Cleaning equipment and utensils to meet hygiene standards.
	3.3 Confirming condition, type, quality and quantity of ingredients.
	3.4 Applying techniques of depositing, extruding or spreading batter to meet product and volume/weight requirements.
	3.5 Identifying batter that does not meet quality requirements and
	3.6 Taking necessary corrective action
	3.7 Maintaining work area to meet housekeeping standards.
	3.8 Maintaining workplace records as required.
	3.9 Methods used to prepare fillings in the workplace.
	3.10 Controlling OHS hazards.
	3.11 Operating and monitoring the mixing process.
	3.12 Preparing tins/trays, liners and papers as required.
	3.13 Selecting and fitting appropriate attachments.
	3.14 Setting mixing equipment to meet production requirements.
	3.15 Setting mixer times and speeds.
	3.16 Applying techniques of transfer ingredients to the mixer in the required sequence.
	3.17 Weighing, scaling or metering ingredients as required.
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	The following resources must be provided:
	5.1 Workplace
	5.2 Tools, 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 drawings, manuals, codes, standards and reference material.

6. Methods of assessment	6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning 6.4 Written test 6.5 Portfolio
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 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 national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	**OU-AGF-BAK-04-L3-V1: Use Basic Control System**
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to use basic control system. It includes preparing for use control system; using control devices and applying basic PLC operation.
Nominal Hours	**30 Hours**
Elements of Competency	**Performance Criteria** **Bold & Underlined** terms are elaborated in the Range of Variables
1. Prepare for use control system	1.1 Safe work practices are observed and Personal Protective Equipment (PPE) is worn as required for the work performed. 1.2 **Tools and control devices** are selected and prepared in line with job requirements. 1.3 **Materials and components** are identified required for control system.
2. Use control devices	2.1 Initial **check-up** of devices is conducted in accordance with user manual. 2.2 Devices are used as per manufacturer instruction. 2.3 Systems faults are identified during operation and reported to relevant authority
3. Apply basic PLC operation	3.1 The major section of PLC system is Identified as required for operation. 3.2 Field and control devices are identified according to plans / drawing instruction. 3.3 PLC operation program is set in accordance with the system function / as per flow chart. 3.4 PLC System is operated in accordance with prescribed procedure. 3.5 Faults of Field and control devices are identified and reported
Range of variables	
Variable	**Range** (may include but not limited to):

1. Tools	1.1 Pliers; assorted 1.2 Screwdrivers; assorted 1.3 Wrenches; assorted 1.4 Multimeter 1.5 Calibrators 1.6 Flow meters 1.7 Pressure meter 1.8 Thermometer 1.9 Low voltage power supply (DC)
2. Control devices	2.1 PLC unit 2.2 Magnetic contactor 2.3 Temp controller 2.4 Level controller 2.5 Flow controller 2.6 Limit switch 2.7 Pressure Sensor 2.8 Timing relay 2.9 Starter 2.10 Inverter

3. Materials and components	3.1 Software for PLC
	3.2 Wires
	3.3 Terminal lugs
	3.4 Terminal blocks
	3.5 Terminal wire marker
	3.6 Sensors
	   ▪ Heat / temperature
	   ▪ Pressure
	   ▪ Flow
	   ▪ Motion
	   ▪ Proximity
	   ▪ I R
	3.7 Limit switches
	3.8 Relays

4. Checkup	4.1 Checking broken, burnt, sparking, short circuited, over heated components of the product. 4.2 Visual inspection of the unit with power off 4.3 Operate the unit according to manual to check for defects

Evidence Guide	
Evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of Unit of Competency.	
1. Critical aspects of competency	Assessment required evidences that the candidate: 1.1 Identified control devices; 1.2 Conducted connections of control device with peripheral equipment; 1.3 Identified field and control devices; 1.4 Conducted minor repair of system faults; and 1.5 Used control system.
2. Underpinning knowledge	2.1 Principles and operation of electronic control system. 2.2 Function of Programmable Logic Controller (PLC). 2.3 Function of inverter. 2.4 Functions of different control devices 2.5 Function of different components
3. Underpinning skills	3.1 Assembling & disassembling of control devices. 3.2 Connecting devices with power supply. 3.3 Handling materials, control devices 3.4 Operating control devices. 3.5 Identifying system faults. 3.6 Reporting system faults.
4. Required attitude	4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Tidiness & timeliness. 4.4 Eagerness to learn. 4.5 Sincere & honest to duties. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors. 4.8 Communication with peers & seniors in workplace.
5. Resource implications	The following resources must be provided: 5.1 Workplace 5.2 Tools, 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 drawings, manuals, codes, standards and reference material.

6. Methods of assessment	6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning 6.4 Written test 6.5 Portfolio
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Validation of Competency Standard

The Competency Standards for National Skills Certificate in **Baking** Level-3 is validated by NSDA on 11 January, 2023.

List of members:

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