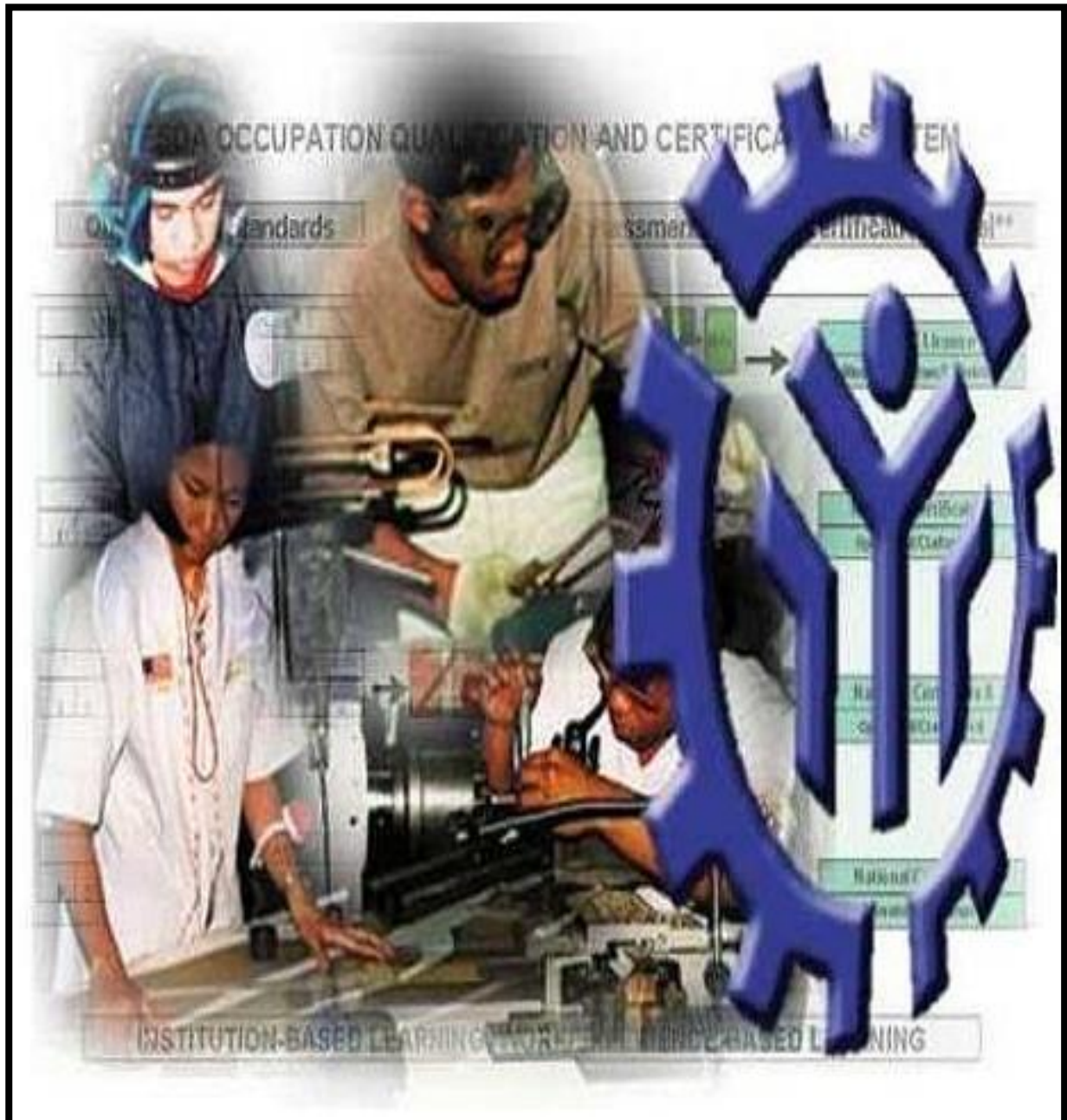


TRAINING REGULATIONS

FOOD PROCESSING NC I



PROCESSED FOOD & BEVERAGES SECTOR

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY
TESDA Complex East Service Road, South Luzon Expressway (SLEX),
Fort Bonifacio, Taguig City

*Technical Education and Skills Development Act of 1994
(Republic Act No. 7796)*

Section 22, “Establishment and Administration of the National Trade Skills Standards” of the RA 7796 known as the TESDA Act mandates TESDA to establish national occupational skill standards. The Authority shall develop and implement a certification and accreditation program in which private industry group and trade associations are accredited to conduct approved trade tests, and the local government units to promote such trade testing activities in their respective areas in accordance with the guidelines to be set by the Authority.

The Training Regulations (TR) serves as basis for:

1. Development of curriculum and assessment tools
2. Registration and delivery of training programs; and
3. Establishment of competency assessment and certification arrangements.

Each TR has four sections:

- Section 1 **Definition of Qualification** - describes the qualification and defines the competencies that comprise the qualification.
- Section 2 **The Competency Standards** format was revised to include the Required Knowledge and Required Skills per element. These fields explicitly state the required knowledge and skills for competent performance of a unit of competency in an informed and effective manner. These also emphasize the application of knowledge and skills to situations where understanding is converted into a workplace outcome.
- Section 3 **Training Arrangements** – contain the information and requirements which serve as bases for training providers in designing and delivering competency-based curriculum for the qualification. The revisions to Section 3 entail identifying the Learning Activities leading to achievement of the identified Learning Outcome.
- Section 4 **Assessment and Certification Arrangements** - describe the policies governing assessment and certification procedures for the qualification.

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TRAINING REGULATIONS FOR **FOOD PROCESSING NC I**

Section 1 FOOD PROCESSING NC I QUALIFICATION

The **Food Processing NC I** Qualification consists of competencies that a person must achieve to assist in quality inspection, dispense materials, prepare packaging materials and supplies for processing, operate basic equipment, clean and sanitize equipment and processing/packaging premises, and debone and fillet fish.

This Qualification is packaged from the competency map of the Processed Food and Beverage Sector as shown in Annex A.

The units of competency comprising this qualification include the following:

UNIT CODE	BASIC COMPETENCIES
400311101	Receive and respond to workplace communication
400311102	Work with others
400311103	Solve/address routine problems
400311104	Enhance self-management skills
400311105	Support innovation
400311106	Access and maintain information
400311107	Follow occupational safety and health policies and procedures
400311108	Apply environmental work standards
400311109	Adopt entrepreneurial mindset in the workplace

UNIT CODE	COMMON COMPETENCIES
AGR741201	Apply Food Safety and Sanitation
AGR741202	Use Standard Measuring Devices and Instruments
AGR741203	Use Food Processing Tools, Equipment and Utensils
AGR741207	Implement Good Manufacturing Practice and Procedures

UNIT CODE	CORE COMPETENCIES
PFB751342	Assist in Quality Inspection
PFB751343	Dispense Materials
PFB751344	Prepare Packaging Materials and Supplies for Processing
PFB751345	Operate Basic Equipment
PFB751346	Clean and Sanitize Equipment and Processing/Packaging Premises
PFB751347	Debone and Fillet Fish

A person who has achieved this Qualification is competent to be:

- Quality control aide, Laboratory aide, Production aide
- Food Processing aide
- Food Factory worker
- Food Production helper
- Fish Deboner

SECTION 2 COMPETENCY STANDARDS

These guidelines are set to provide the Technical Vocational Education and Training (TVET) providers with information and other important requirements to consider when designing training programs for **Food Processing NC I**.

BASIC COMPETENCIES

UNIT OF COMPETENCY : **RECEIVE AND RESPOND TO WORKPLACE COMMUNICATION**

UNIT CODE : **400311101**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to receive, respond and act on verbal and written communication.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Follow routine spoken messages	1.1 Required information is gathered by listening attentively and correctly interpreting or understanding information/ instructions 1.2 Instructions/ information are recorded in accordance with workplace requirements 1.3 Instructions are acted upon immediately in accordance with information received 1.4 Clarification is sought from workplace supervisor on all occasions when any instruction/ information is not clear	1.1 Organizational policies/ guidelines in regard to processing internal/external information 1.2 Ethical work practices in handling communications 1.3 Overview of the Communication process 1.4 Effective note-taking and questioning techniques	1.1 Conciseness in receiving and clarifying messages/ information/ communication 1.2 Accuracy in recording messages/ information 1.3 Basic communication skills 1.4 Active-listening Skills 1.5 Note-taking skills 1.6 Clarifying and probing questions (questioning skills)
2. Perform workplace duties following written notices	2.1 Written notices and instructions are read and interpreted correctly in accordance with	2.1 Organizational guidelines in regard to processing internal/ external	2.1 Conciseness in receiving and clarifying messages/ information/

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p><i>organizational guidelines.</i></p> <p>2.2 Routine written instructions are followed in sequence.</p> <p>2.3 Feedback is given to workplace supervisor based on the instructions/information received.</p>	<p>information</p> <p>2.2 Ethical work practices in handling communications</p> <p>2.3 Overview of the Communication process</p> <p>2.4 Effective questioning techniques (clarifying and probing)</p>	<p>communication</p> <p>2.2 Accuracy in recording messages/information</p> <p>2.3 Clarifying and probing questions (Questioning Skills)</p> <p>2.4 Skills in reading and recording and labeling data</p> <p>2.5 Skills in locating information</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Written notices and instructions	May include but not limited to: 1.1 Written work instructions 1.2 Internal memos/memorandum 1.3 Business letters 1.4 External communications 1.5 Electronic mail 1.6 Briefing notes 1.7 General correspondence 1.8 Marketing materials 1.9 Guidelines/Circulars
2. Organizational guidelines	May include but not limited to: 2.1 Information documentation procedures 2.2 Company guidelines and procedures 2.3 Standard Operating Procedure (SOPs) 2.4 Organization manuals 2.5 Departmental Policies and Procedures Manual 2.6 Service manual

EVIDENCE GUIDE

1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1 Demonstrated knowledge and understanding of organizational procedures in handling verbal and written communications 1.2 Received and acted on verbal messages and instructions correctly and efficiently 1.3 Demonstrated ability in recording instructions/information 1.4 Utilized effective clarifying and probing techniques where necessary
2. Resource Implications	The following resources should be provided: 2.1 Pens 2.2 Note pads 2.3 Computer (if applicable)
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Demonstration on communication skills (e. g., role-playing) 3.3 Oral questioning/Interview 3.3 Written Test
4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or in a simulated environment in TESDA-accredited institutions

UNIT OF COMPETENCY : WORK WITH OTHERS

UNIT CODE : 400311102

UNIT DESCRIPTOR : This unit covers the skills, knowledge and attitudes required in working as member of a team, interacting with co-members and performing one’s role in the team.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Develop effective workplace relationships	1.1 Duties and responsibilities are done in a positive manner to promote cooperation and good relationship. 1.2 Assistance is sought from workgroup when difficulties arise and addressed through discussions. 1.3 Feedback provided by others in the team is encouraged, acknowledged and acted upon 1.4 Differences in .personal values and beliefs are respected and acknowledged during interaction.	1.1 One’s role, duties and responsibilities in the workplace 1.2 Acknowledging/ receiving and giving feedback 1.3 Valuing respect and empathy in the workplace 1.4 Workplace communication protocols 1.5 Teamwork 1.6 Collaboration and teambuilding within the enterprise	1.1 Communication skills – oral and written (e. g., requesting advice, receiving feedback) 1.2 Ability to relate to/interact with people from a range of social and cultural backgrounds
2. Contribute to work group activities	2.1 Support is provided to team members to ensure workgroup goals are met. 2.2 Constructive contributions to workgroup goals and tasks are made according to organizational requirements . 2.3 Information relevant to work is shared with team members to ensure designated goals are met.	2.1 Importance of creative collaboration, social perceptiveness and problem sensitivity in the workplace 2.2 Organizational Requirements 2.3 importance of initiative and dedication in group process 2.4 Office and workplace technologies and automation (hardware, software systems)	2.1 Communication skills – oral and written (e. g., requesting advice, receiving feedback) 2.2 Organizing work priorities and arrangements 2.3 Team player skills 2.4 Technology skills including the ability to select and use technology appropriate to a task

RANGE OF VARIABLES

VARIABLE	RANGE
1. Duties and responsibilities	May include but not limited to: 1.1 Job description and employment arrangements 1.2 Organization's policy relevant to work role 1.3 Organizational structures 1.4 Supervision and accountability requirements including OHS 1.5 Enterprise code of conduct
2. Work group	May include but not limited to: 2.1 Supervisor or manager 2.2 Peers/work colleagues and clients 2.3 Other members of the organization
3. Feedback	May include but not limited to: 3.1 Formal/Informal performance appraisal 3.2 Obtaining feedback from supervisors and colleagues and clients 3.3 Personal, reflective behavior strategies 3.4 Routine organizational methods for monitoring service delivery
4. Providing support to team members	May include but not limited to: 4.1 Explaining/clarifying 4.2 Helping colleagues 4.3 Providing encouragement 4.4 Providing feedback to another team member 4.5 Undertaking extra tasks if necessary
5. Organizational requirements	May include but not limited to: 5.1 Goals, objectives, plans, system and processes 5.2 Legal and organization policy/guidelines 5.3 OHS policies, procedures and programs 5.4 Ethical standards 5.5 Defined resources parameters 5.6 Quality and continuous improvement processes and standards

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Provided support to team members to ensure goals are met 1.2 Acted on feedback from clients and colleagues 1.3 Demonstrated quality/active participation in team meetings and activities
2. Resource Implications	The following resources should be provided: 2.1 Access to relevant workplace or appropriately simulated environment where assessment can take place 2.2 Materials relevant to the proposed activity or task
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Written Test 3.2 Role play 3.3 Interview/Oral questioning 3.4 Structured and unstructured activity
4. Context for Assessment	4.1 Competency assessment may occur in workplace or any appropriately simulated environment 4.2 Assessment shall be observed while task are being undertaken whether individually or in group

UNIT OF COMPETENCY : SOLVE/ADDRESS ROUTINE PROBLEMS

UNIT CODE : 400311103

UNIT DESCRIPTOR : This unit of covers the knowledge, skills and attitudes required to solve problems in the workplace including the application of problem solving techniques and to determine and resolve the root cause of routine problems.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify the problem	1.1 Desired operating/ output parameters and expected quality of products/services are identified. 1.2 The nature of the problem by observation on routines are defined. 1.3 Problems are stated and specified clearly.	1.1 Competence includes mastery of knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations 1.2 Competence to include the ability to apply and explain fundamental causes of problems routine problems and to determine the corrective actions. 1.3 Relevant equipment and operational processes 1.4 Enterprise goals, targets and measures 1.5 Enterprise quality OHS and environmental requirement 1.6 Enterprise information systems and data collation 1.7 Industry codes and standards	1.1 Using range of formal problem-solving techniques (e.g., planning, attention, simultaneous and successive processing of information). 1.2 Identifying and clarifying the nature of the problem.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Assess fundamental causes of the problem	2.1 Problem-solving tool appropriate to the problem and the context is selected 2.2 Possible causes based on experience and the use of problem-solving tools/ <i>basic analytical techniques</i> are identified 2.3 Possible fundamental causes of problems are specified.	2.1 Competence includes a thorough knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations 2.2 Competence to include the ability to apply and explain fundamental causes of problems routine problems and to determine the corrective actions. 2.3 Relevant equipment and operational processes 2.4 Enterprise goals, targets and measures 2.5 Enterprise quality OHS and environmental requirement 2.6 Enterprise information systems and data collation 2.7 Industry codes and standards	2.1 Using range of formal problem-solving techniques (e.g., planning, attention, simultaneous and successive processing of information). 2.2 Identifying extent and causes of procedural problems.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Determine corrective action	3.1 All possible options are considered for resolution of the routine problem. 3.2 Corrective actions are determined to resolve the problem and possible future causes 3.3 Action plans are developed identifying measurable objectives, resource needs and timelines in accordance with safety and operating procedures	3.1 Competence includes a thorough knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations 3.2 Competence to include the ability to apply and explain, sufficient for the identification of fundamental cause, determining the corrective action and provision of recommendations 3.3 Relevant equipment and operational processes 3.4 Enterprise goals, targets and measures 3.5 Enterprise quality OHS and environmental requirement 3.6 Principles of decision making strategies and techniques 3.7 Enterprise information systems and data collation 3.8 Industry codes and standards	3.1 Using range of formal problem-solving techniques. 3.2 Identifying and clarifying the nature of the problem. 3.3 Devising and applying the best possible solution to a problem. 3.4 Evaluating the solution
4. Communicate action plans and recommendations to routine problems	4.1 Report on recommendations are prepared. 4.2 Recommendations are presented to appropriate person . 4.3 Recommendations are followed-up, if required.	4.1 Competence includes a thorough knowledge and understanding of the process, normal operating parameters, and	4.1 Using range of formal problem solving techniques 4.2 Identifying and clarifying the nature of the problem

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		<p>product quality to recognize non-standard situations</p> <p>4.2 Competence to include the ability to apply and explain, sufficient for the identification of fundamental cause, determining the corrective action and provision of recommendations</p> <p>4.3 Relevant equipment and operational processes</p> <p>4.4 Enterprise goals, targets and measures</p> <p>4.5 Enterprise quality, OHS and environmental requirement</p> <p>4.6 Principles of decision making strategies and techniques</p> <p>4.7 Enterprise information systems and data collation</p> <p>4.8 Industry codes and standards</p>	<p>4.3 Devising the best possible solution to a routine problem</p> <p>4.4 Evaluating the solution</p> <p>4.5 Developing action plans to resolving and managing routine problems</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Problem	May include but not limited to: 1.1 Routine/non – routine processes and quality problems 1.2 Equipment selection, availability and failure 1.3 Teamwork and work allocation problem 1.4 Safety and emergency situations and incidents
2. Basic analytical techniques	May include but not limited to: 2.1 Brainstorming 2.2 Case Analysis 2.3 Cause and effect diagrams 2.4 Pareto analysis 2.5 SWOT analysis 2.6 Gant chart, Pert CPM and graphs 2.7 Scattergram
3. Action plans	May include but not limited to: 3.1 Priority requirements 3.2 Measurable objectives 3.3 Resource requirements 3.4 Timelines 3.5 Co-ordination and feedback requirements 3.6 Safety requirements 3.7 Risk assessment 3.8 Environmental requirements
4. Appropriate person	May include but not limited to: 4.1 Supervisor or manager 4.2 Peers/work colleagues 4.3 Other members of the organization

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ol style="list-style-type: none"> 1.1 Identified the problem. 1.2 Determined the fundamental causes of the problem. 1.3 Determined the correct / preventive action. 1.4 Developed action plans in managing routine problems. <p>These aspects may be best assessed using project-based learning mode of assessment and case formulation.</p>
<p>2. Resource Implications</p>	<p>2.1 Assessment will require access to a workplace over an extended period, or a suitable method of gathering evidence of operating ability over a range of situations.</p>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ol style="list-style-type: none"> 3.1 Case Formulation 3.2 Life Narrative Inquiry (Interview) 3.3 Standardized test <p>The unit will be assessed in a holistic manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations, which will include disruptions to normal, smooth operation. Simulation may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual workplace and will include walk through of the relevant competency components.</p> <p>These assessment activities should include a range of problems, including new, unusual and improbable situations that may have happened.</p>
<p>4. Context for Assessment</p>	<p>4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions.</p>

UNIT OF COMPETENCY : ENHANCE SELF-MANAGEMENT SKILLS

UNIT CODE : 400311104

UNIT DESCRIPTOR : This unit covers the knowledge, skills, and attitudes in applying the ability to regulate actions, make good decisions, and show appropriate behavior based on self-awareness.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Set personal and career goals	1.1 The difference between personal and career goals are described. 1.2 Clear and concise personal and career goals are developed. 1.3 Characteristics of motivational goals according to Locke & Latham are identified.	1.1 Definition of personal goals and career goals 1.2 SMART Model for goal setting 1.3 Five principle of goal setting according to Locke & Latham (Clarity, Challenge, Commitment, Feedback, and Task complexity)	1.1 Setting of personal and career goals 1.2 Defining, creating, and mapping personal and career goals using SMART Model for goal setting 1.3 Applying goal setting principles to personal and career goals
2. Recognize emotions	2.1 Influence that people, situations and events have on emotions are described. 2.2 Importance of responding with appropriate emotions are explained. 2.3 Influences on and consequences of emotional responses in a social and work-related contexts are examined.	2.1 Common positive and negative emotions manifested in the workplace 2.2 Professional and non-professional behaviors in the workplace 2.3 Triggers and implications of positive and negative emotions in the workplace	2.1 Identifying sensitively the positive and negative emotions in the workplace 2.2 Responding with appropriate emotions in the workplace 2.3 Identifying possible consequences of inappropriate emotional responses in a social and work-related context
3. Describe oneself as a learner	3.1 Factors and strategies that assist learning are identified and described. 3.2 Preferred learning styles according to VAK Learning Style Model and Kolb's Theory of Learning	3.1 Kolb's Theory of Learning Styles (Converger, Diverger, Assimilator, Accommodator) 3.2 VAK Learning Style Model (Visual, Auditory, Kinesthetic)	3.1 Identifying factors and strategies that assist learning 3.2 Applying learning styles to positively influence school/work performance

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>Styles are identified.</p> <p>3.3 Range of <i>learning strategies</i> appropriate to specific tasks and describe work practices that assist their learning are identified and chosen.</p>	<p>3.3 Range of learning strategies appropriate to specific tasks and describe work practices that assist their learning</p>	<p>3.3 Using appropriate learning strategies to improve study habits and learning</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal goals	May include but not limited to: 1.1 Graduate from Tech-Voc training 1.2 Buy a car 1.3 Travel around the world
2. Career goals	May include but not limited to: 2.1 Graduate from Tech-Voc training 2.2 Graduate from college 2.3 Buy a car 2.4 Retire at 50 years old
3. Emotions	Positive emotions may include but not limited to: 3.1 Joy 3.2 Gratitude 3.3 Hope 3.4 Serenity Negative emotions may include but not limited to: 3.5 Anger 3.6 Fear 3.7 Disgust 3.8 Sadness
4. Social and work-related contexts	May include professional behavior such as— 4.1 Committed to developing and improving their skills 4.2 Professionals get the job done 4.3 They keep their word and deliver what they promise. May include non-professional behavior such as— 4.4 They engage in office politics 4.5 Bluffing and misrepresenting their skills 4.6 Blaming a colleague
5. Learning styles	May include but not limited to: 5.1 Visual 5.2 Auditory 5.3 Kinesthetic 5.4 Converger 5.5 Diverger 5.6 Assimilator 5.7 Accommodator
6. Learning strategies	May include but not limited to: 6.1 Explain and describe ideas with many details 6.2 Switch between ideas while studying 6.3 Use specific examples to understand abstract ideas

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ol style="list-style-type: none"> 1.1 Identified the problem. 1.2 Determined the fundamental causes of the problem. 1.3 Determined the correct / preventive action. 1.4 Developed action plans in managing routine problems. <p>These aspects may be best assessed using project-based learning mode of assessment and case formulation.</p>
1. Critical aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ol style="list-style-type: none"> 1.1 Developed SMART personal and career goals 1.2 Applied goal setting principles 1.3 Identified sensitively the positive and negative emotions in the workplace 1.4 Responded with appropriate emotions in the workplace 1.5 Identified possible consequences of inappropriate emotional responses in a social and work-related context 1.6 Applied learning styles to positively influence school/work performance 1.7 Developed reflective practice through realization of limitations, likes/ dislikes; through showing of self-confidence
2. Resource Implications	<p>The following resources for should be provided:</p> <ol style="list-style-type: none"> 2.1 Access to workplace and resources
3. Methods of Assessment	<p>Competency in this unit may be assessed through:</p> <ol style="list-style-type: none"> 3.1 Demonstration or simulation with oral questioning (ex. how to recognize emotions) 3.2 Case problems involving workplace diversity issues 3.3 Third-party report
4. Context for Assessment	<ol style="list-style-type: none"> 4.1 Competency assessment may occur in workplace or any appropriately simulated environment

UNIT OF COMPETENCY : SUPPORT INNOVATION

UNIT CODE : 400311105

UNIT DESCRIPTOR : This unit of covers the knowledge, skills and attitudes required to identify, recognize and support innovation.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify the need for innovation in one's area of work	1.1 The value of <i>innovative practices</i> in the workplace is recognized. 1.2 Creativity in <i>innovation</i> in one's scope of work is applied. 1.3 The need for innovation in own scope of work is recognized.	1.1 Clear-cut definition of innovation 1.2 Current practice in own scope of work 1.3 Workplace procedures	1.1 Contributing in brainstorming session 1.2 Examining current practice in one's scope of work 1.3 Identifying issues and concerns of one's scope of work
2. Recognize innovative and creative ideas	2.1 Opportunities within the team are identified to develop innovation. 2.2 Creative ideas of coworkers pertaining to work practices are analyzed. 2.3 Environment conducive for learning and innovating is maintained.	2.1 Support required to generate creative ideas 2.2 Difference between innovation and creativity 2.3 Innovative climate in one's scope of work	2.1 Identifying resources required for creativity and innovation 2.2 Examining potential obstacles to and opportunities for creativity and innovation 2.3 Communicating creative ideas of co-workers
3. Support individuals' access to flexible and innovative ways of working	3.1 Individuals and key people are reinforced to identify innovative ideas to achieve outcomes. 3.2 Sharing of best practices using flexible and innovative ways of working is accomplished. 3.3 Obstacles to progress in implementing flexible and innovative ways of working are recognized.	3.1 The role of employees/workers in the improvement of practices in the organization 3.2 Best practices using flexible and innovative ways of working 3.3 Obstacles in implementing innovation in one's scope of work	3.1 Encouraging co-workers to generate and develop ideas 3.2 Evaluating potential obstacles to and opportunities for creativity and innovation 3.3 Sharing of best practices related to innovation and creativity

RANGE OF VARIABLES

VARIABLE	RANGE
1. Innovative practices	May include but not : 1.1 Self-directed support 1.2 Community based services 1.3 Working within a collaborative arrangement 1.4 Making scope of work more efficient
2. Innovation	May include: 2.1 New ideas 2.2 Original ideas 2.3 Different ideas 2.4 Methods or tools

EVIDENCE GUIDE

1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1 Identified need for innovation in the area of work 1.2 Recognized innovative and creative ideas 1.3 Pursued agreement for flexible and innovative ways of working 1.4 Supported individuals and people to access flexible and innovative ways of working
2. Resource Implications	Specific resources for assessment 2.1 Evidence of competent performance should be obtained by observing an individual in an information management role within the workplace or operational or simulated environment.
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Written Test 3.2 Interview The unit will be assessed in a holistic manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations, which will include disruptions to normal, smooth operation. Simulation may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual workplace and will include walk through of the relevant competency components.
4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions

UNIT OF COMPETENCY : ACCESS AND MAINTAIN INFORMATION

UNIT CODE : 400311106

UNIT DESCRIPTOR : This unit of covers the knowledge, skills and attitudes required to identify, gather, interpret and maintain information.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify and gather needed information	1.1 Required information is identified based on requirements. 1.2 Sources to produce required information are identified and accessed. 1.3 Report information is collected, organized and recorded. 1.4 Organize information is collected in a way that enables easy access and retrieval by other staff.	1.1 Policies, procedures and guidelines relating to information handling in the public and private sector, including confidentiality, privacy, security, freedom of information 1.2 Data collection and management procedures 1.3 Cultural aspects of information and meaning 1.4 Sources of public sector work-related information 1.5 Public/private sector standards	1.1 Handling policies, procedures and guidelines relating to information handling in the public sector, including confidentiality, privacy, security, freedom of information 1.2 Collecting data and managing procedures 1.3 Practicing cultural aspects of information and meaning 1.4 Using public/private sector standards
2. Search for information on the internet or an intranet	2.1 Engine is search to find and select appropriate information. 2.2 Suitable techniques is use to make it easier to find useful information and to pass it on to others. 2.3 Records are use where useful information came from. 2.4 Results are used for searches of useful information. 2.5 Search engine is chosen appropriate for the information that is needed.	2.1 Find and select appropriate information 2.3 Techniques in finding useful information Records are use where useful information came from 2.3 Search engines for information	2.1 Finding and selecting search engine to find and select appropriate information 2.2 Using suitable techniques to find useful information easier 2.3 Using records 2.4 Carrying out Searches

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	2.6 Searches are carry out as per requirements.		
3. Examine information	3.1 Information and its sources are evaluated for relevance and validity to business and/or client requirements. 3.2 Information is examined as required to identify key issues. 3.3 Detailed evaluation of information is carried out as required using relevant techniques including mathematical calculations.	3.1 Data evaluation procedures 3.2 Cultural aspects of information and meaning 3.3 Sources of public sector work-related information 3.4 Public sector standards	3.1 Evaluating data 3.2 Practicing cultural aspects of information and meaning 3.3 Using public sector standards
4. Secure information	4.1 Basic file-handling techniques are used for the software 4.2 Techniques is used to handle, organize and secure information	4.1 Policies, procedures and guidelines relating to information handling in the public sector, including confidentiality, privacy, security, freedom of information 4.2 Basic file-handling techniques 4.3 Techniques in handling, organizing and saving files 4.4 Electronic and manual filing systems	4.1 Handling policies, procedures and guidelines relating to information handling in the public sector, including confidentiality, privacy, security, freedom of information 4.2 Using basic file-handling techniques is used for the software 4.3 Using different techniques in handling, organizing and saving files 4.4 Using electronic and manual filing systems

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
5. Manage information	5.1 Information and records are maintained to ensure data and system integrity using a range of standard and complex information systems and operations. 5.2 Routine data and records are reconciled as required. 5.3 Inadequacies in system/s relating to information retrieval are identified and corrected or reported to relevant staff as required.	5.1 Policies, procedures and guidelines relating to information handling in the public sector, including confidentiality, privacy, security, freedom of information 5.2 Data collection and management procedures 5.3 Organizational information handling and storage procedures 5.4 Cultural aspects of information and meaning 5.5 Sources of public sector work-related information 5.6 Public sector standards 5.7 Databases and data storage systems	5.1 Handling policies, procedures and guidelines relating to information handling in the public sector, including confidentiality, privacy, security, freedom of information 5.2 Collecting data and managing procedures 5.3 Handling organizational information and storage procedures 5.4 Practicing cultural aspects of information and meaning 5.5 Using public sector standards 5.6 Managing databases and data storage systems

RANGE OF VARIABLES

VARIABLE	RANGE
1. Information	May include but not limited to: 1.1 Property 1.2 Organizational 1.3 Technical reference
2. Search engine	May include but not limited to: 2.1 Crawler-based search engine 2.1.1 Google 2.1.2 AlltheWeb 2.1.2 AltaVista 2.2 Human-powered directories 2.2.1 Yahoo directory 2.2.2 Open directory 2.2.3 Looksmart
3. Sources	May include but not limited to: 3.1 Other IT systems 3.2 Manually created 3.3 Within own organization 3.4 Outside own organization 3.5 Geographically remote

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Identified and gathered needed information 1.2 Searched for information on the internet or an intranet 1.3 Studied and interpreted information 1.4 Handled files 1.5 Maintained information
<p>2. Resource Implications</p>	<p>Specific resources for assessment</p> <ul style="list-style-type: none"> 2.1 Evidence of competent performance should be obtained by observing an individual in an information management role within the workplace or operational or simulated environment.
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Written Test 3.2 Interview 3.3 Portfolio <p>The unit will be assessed in a holistic manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations, which will include disruptions to normal, smooth operation. Simulation may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual workplace and will include walk through of the relevant competency components.</p>
<p>4. Context for Assessment</p>	<ul style="list-style-type: none"> 4.1 In all workplace, it may be appropriate to assess this unit concurrently with relevant teamwork or operation units.

UNIT OF COMPETENCY : FOLLOW OCCUPATIONAL SAFETY AND HEALTH POLICIES AND PROCEDURES

UNIT CODE : 400311107

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes to identify relevant occupational safety and health policies and procedures, perform relevant occupational safety and health procedures, and comply with relevant occupational safety and health policies and standards

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify relevant occupational safety and health policies and procedures	1.1 Related <i>occupational safety and health risks and hazards</i> are recognized based on <i>OSH work standards</i> . 1.2 <i>OSH requirements/regulations</i> towards work are determined in accordance to workplace policies and procedures. 1.3 <i>Incident/Emergency procedures</i> relevant to workplace are identified based on relevant OSH work standards.	1.1 Occupational safety and health risks and hazards 1.2 OSH work standards 1.3 Government approved Occupational Safety and Health Policies and regulations 1.4 Terms related to occupational safety and health 1.5 Workplace process and procedures 1.6 Standard emergency plan and procedures	1.1 Observation skills 1.2 Critical thinking skills 1.3 Communication skills

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Perform relevant occupational safety and health procedures	2.1 Safety devices are checked in accordance with workplace OSH work standards. 2.2 <i>OSH Work instructions</i> are followed in accordance with workplace policies and procedures. 2.3 <i>Personal protective equipment,</i> materials, tools, machinery, and equipment are utilized according to OSH work standards.	2.1 OSH Work instructions Personal protective equipment 2.2 Safe handling procedures of tools, equipment and materials 2.3 Standard emergency plan and procedures 2.4 Different OSH control measures 2.5 Standard accident and illness reporting procedures	2.1 Communication skills 2.2 Knowledge management 2.3 Organizing skills 2.4 Observation skills
3. Comply with relevant occupational safety and health policies and standards	3.1 <i>Preventive Control Measures</i> are identified in accordance with OSH work standards. 3.2 OSH requirements are obeyed in accordance with workplace policies and procedures. 3.3 Incident/ Emergency procedures are executed based on OSH Procedures.	3.1 OSH Preventive Control Measures 3.2 Principles of 5S 3.3 Environmental requirements relative to industrial wastes disposal 3.4 OSH requirements relative to safe handling and disposal of materials 3.5 Personal hygiene practices	3.1 Communication skills 3.2 Knowledge management 3.3 Organizing skills 3.4 Critical thinking skills 3.5 Observation skills

RANGE OF VARIABLES

VARIABLE	RANGE
1. Occupational Safety and Health Risks and Hazards	May include: <ul style="list-style-type: none"> 1.1 Physical hazards – impact, illumination, pressure, noise, vibration, extreme temperature, radiation 1.2 Biological hazards- bacteria, viruses, plants, parasites, mites, molds, fungi, insects 1.3 Chemical hazards – dusts, fibers, mists, fumes, smoke, gasses, vapors 1.4 Ergonomics 1.5 Psychological factors – over exertion/ excessive force, awkward/static positions, fatigue, direct pressure, varying metabolic cycles 1.6 Physiological factors – monotony, personal relationship, work out cycle 1.7 Safety hazards (unsafe workplace condition) – confined space, excavations, falling objects, gas leaks, electrical, poor storage of materials and waste, spillage, waste and debris 1.8 Unsafe workers’ act (Smoking in off-limited areas, Substance and alcohol abuse at work)
2. OSH Work Standards	May include: <ul style="list-style-type: none"> 2.1 OSHS Rule 1090 Hazardous Materials 2.2 OSHS Rule Gas & Electric Welding and Cutting Operations 2.3 OSHS Rule 1120 Hazardous Work Processes 2.4 OSHS Rule 1150 Materials Handling & Storage 2.5 OSHS Rule 1180 Internal Combustion Engine 2.6 OSHS Rule 1210 Electrical Safety 2.7 OSHS Rule 1420 Logging 2.8 OSHS Rule 1410 Construction Safety 2.9 OSHS Rule 1950 Pesticides & Fertilizers
3. OSH Requirements/ Regulations	May include: <ul style="list-style-type: none"> 3.1 Clean Air Act 3.2 Building code 3.3 National Electrical and Fire Safety Codes 3.4 Waste management statutes and rules 3.5 Permit to Operate 3.6 Philippine Occupational Safety and Health Standards 3.7 Department Order No. 13 (Construction Safety and Health) 3.8 ECC regulations 3.9 Republic Act No. 11058 – An Strengthening Compliance with Occupational Safety and Health
4. Incident and Emergency Procedures	May include: <ul style="list-style-type: none"> 4.1 Chemical spills 4.2 Equipment/vehicle accidents 4.3 Explosion 4.4 Fire Drill 4.5 Gas leak 4.6 Injury to personnel

VARIABLE	RANGE
	4.7 Structural collapse 4.8 Earthquake drill 4.9 Toxic and/or flammable vapors emission 4.10 Evacuation 4.11 Isolation 4.12 Basic life support/CPR 4.13 Decontamination 4.14 Calling designed emergency personnel
5. OSH Work Instructions	May include: 5.1 Worker's Participation Policies 5.2 Company Environment Safety and Health Policies 5.3 Continual OSH Improvement Instructions 5.4 Education and Training 5.5 Safety and Health Policy Statements 5.6 Mission and Vision Statements 5.7 Operating Instructions and Policies
6. Personal Protective Equipment	May include: 6.1 Arm/Hand guard, gloves 6.2 Eye protection (goggles, shield) 6.3 Hearing protection (ear muffs, ear plugs) 6.4 Hair Net/cap/bonnet 6.5 Hard hat 6.6 Face protection (mask, shield) 6.7 Apron/Gown/coverall/jump suit 6.8 Anti-static suits 6.9 High-visibility reflective vest
7. Preventive Control Measures	May include: 7.1 Eliminate the hazard (i.e., get rid of the dangerous machine) 7.2 Isolate the hazard (i.e. keep the machine in a closed room and operate it remotely; barricade an unsafe area off) 7.3 Substitute the hazard with a safer alternative (i.e., replace the machine with a safer one) 7.4 Use administrative controls to reduce the risk (i.e. give trainings on how to use equipment safely; OSH-related topics, issue warning signages, rotation/shifting work schedule) 7.5 Use engineering controls to reduce the risk (i.e. use safety guards to machine) 7.6 Use personal protective equipment 7.7 Safety, Health and Work Environment Evaluation 7.8 Periodic and/or special medical examinations of workers

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Recognize related occupational safety and health risks and hazards based on OSH work standards 1.2 Identify incident/emergency procedures relevant to workplace based on relevant OSH work standards 1.3 Follow the OSH work instructions in accordance with workplace policies and procedures 1.4 Utilize personal protective equipment, materials, tools, machinery, and equipment according to OSH work standards 1.5 Obey OSH requirements in accordance with workplace policies and procedures 1.6 Executed incident/ emergency procedures based on OSH Procedures
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Facilities, materials tools and equipment necessary for the activity
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Observation/Demonstration with oral questioning 3.2 Third party report
<p>4. Context for Assessment</p>	<ul style="list-style-type: none"> 4.1 Competency may be assessed in the work place or in a simulated work place setting

UNIT OF COMPETENCY : APPLY ENVIRONMENTAL WORK STANDARDS

UNIT CODE : 400311108

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitude to identify environmental work hazards, follow environment work procedures and comply with environmental requirements.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify environmental work hazards	1.1 Related environmental hazards are recognized based on environmental work standards . 1.3 Environmental work standards are interpreted in accordance to relevant policies. 1.3 Required resources to minimize effect of environmental hazards are prepared based on relevant environmental work standards.	1.1 Environmental Hazards 1.2 Environmental Work Standards 1.3 Required Resources 1.4 OSH Standards 1.5 Fight against poverty rights 1.6 Environmental Protection 1.7 Respect of Human Rights	1.1 Critical thinking 1.2 Problem solving 1.3 Observation Skills
2. Follow environmental work procedures	2.1 Environmental protection pre-cautionary activities are practiced based on environmental work procedures. 2.2 Work activities are executed in accordance with Environmental Work Procedures . 2.3 Environmental Protection Post-Activities are accomplished based on environmental work procedures.	2.1 Environmental Protection 2.2 Environmental Work Procedures 2.3 Renewable Energies	2.1 Critical thinking 2.2 Problem solving 2.3 Observation Skills

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Comply with environmental work requirements	3.1 Required resources are utilized in accordance with workplace environmental policies. 3.2 <i>Environmental hazardous and non-hazardous materials</i> are stored in accordance with <i>environmental regulations</i> . 3.3 Hazardous and Non-hazardous Wastes disposed according to environmental regulations.	3.1 Environmental Work Procedures 3.2 Environmental Laws 3.2 Environmental Hazardous and Non-Hazardous Materials	3.1 Critical thinking 3.2 Problem solving 3.3 Observation Skills

RANGE OF VARIABLES

VARIABLE	RANGE
1. Environmental Hazards	May include but not limited: 1.1 Tobacco Smoke 1.2 Asbestos 1.3 Lead 1.4 Combustion Gases 1.5 Chemicals 1.6 Pesticides 1.7 Pollutants 1.8 Contaminated Drinking Water 1.9 Noise 1.10 Dust
2. Environmental Work Standards	May include but not limited: 2.1 Air Quality Standards 2.2 Emission Standards 2.3 ISO 14001: Environmental Management System 2.4 Environmental Statements 2.5 Environmental Quality Standards 2.6 Work Environment Measurement Standard
3. Required Resources	May include but not limited: 3.1 Electric 3.2 Water 3.3 Fuel 3.4 Telecommunications 3.5 Supplies and Materials 3.6 Trash Cans 3.7 Relevant Data Sheets 3.8 Barriers or Barricades
4. Environmental Protection	May include (but not limited to) protection against 4.1 Overconsumption of Resources 4.2 Destruction of Ecosystems 4.3 Habitat Destructions 4.4 Extinction of Wildlife 4.5 Pollutions 4.6 Water Degradation
5. Environmental Work Procedures	May include but not limited: 5.1 Environmental pollution control measures 5.2 Oil and Fuel use 5.3 Disposal and Reuse 5.4 Herbicide applications 5.5 Breed Bird Mitigation 5.6 Tree Removal Works 5.7 Erosion Protection 5.8 Scrub Clearance 5.9 Bankside sediment clearance
6. Environmental Hazardous and Non-Hazardous Materials	May include but not limited: 6.1 Acids 6.2 Adhesives 6.3 Aerosols 6.4 Asbestos 6.5 Batteries

VARIABLE	RANGE
	6.6 Chemicals 6.7 Compact fluorescent lamps 6.8 Drugs 6.9 Dyes 6.10 E-Waste 6.11 Gasoline 6.12 Grease 6.13 Lead 6.14 Motor Oil 6.15 Solvents 6.16 Weed Killers
7. Environmental Regulations	May include but not limited: 7.1 Clean Air Act 7.2 Clean Water Act 7.3 Endangered Species Act 7.4 Resource Conservation and Recovery Act 7.5 Cave Resources and Management Act 7.6 Fisheries Code 7.7 Forestry Code 7.8 Mining Act

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Interpreted the Environmental Work Standards in accordance to relevant policies 1.2 Prepared required resources to minimize effects of environmental hazards based on relevant environmental work standards 1.3 Practiced environmental protection pre-cautionary activities based on environmental work procedures 1.4 Executed work activities in accordance with environmental work procedures 1.5 Accomplished environmental protection post-activities based on environmental work procedures 1.6 Stored environmental hazardous and non-hazardous materials in accordance with environmental regulations 1.7 Disposed hazardous and non-hazardous wastes according to environmental regulations
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Workplace with storage facilities 2.2 Tools, materials and equipment relevant to the tasks (ex. Cleaning tools, cleaning materials, trash bags, etc.) 2.3 PPE 2.4 Manuals and references
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Demonstration 3.2 Oral questioning 3.3 Written examination
<p>4. Context for Assessment</p>	<ul style="list-style-type: none"> 4.1 Competency assessment may occur in workplace or any appropriately simulated environment 4.2 Assessment shall be observed while task are being undertaken whether individually or in-group

UNIT OF COMPETENCY : ADOPT ENTREPRENEURIAL MINDSET IN THE WORKPLACE

UNIT CODE : 400311109

UNIT DESCRIPTOR : This unit covers the outcomes required to support and internalize an entrepreneurial mindset and observe basic entrepreneurial practices in the workplace.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Determine entrepreneurial mindset	1.1 Entrepreneurial mindset in the workplace is determined from enterprise practices and policies. 1.2 Entrepreneurial mindset in the workplace is studied and affirmed based on current enterprise practices. 1.3 Clarification from reliable sources is sought regarding entrepreneurial mindset and corporate culture.	1.1 Workplace policies and practices relating to entrepreneurship 1.2 Elements of corporate culture 1.3 Entrepreneurial mindset 1.4 Entrepreneurial practices in the workplace 1.5 Desirable attitudes: 1.5.1 Willingness to learn 1.5.2 Attention to details	1.1 Identifying entrepreneurial mindset 1.2 Studying and affirming entrepreneurial mindset 1.3 Selecting and emulating desirable entrepreneurial practices 1.4 Communication skills
2. Identify entrepreneurial practices	2.1 Entrepreneurial practices are determined based on enterprise requirements. 2.2 Entrepreneurial practices is performed following workplace and client requirements. 2.3 Cost-effective measures are complied with reference to workplace best practices.	2.1 Quality assurance practices 2.2 Workplace and client requirements 2.3 Types of cost-effective measures 2.4 Workplace quality policy 2.5 Attitude: 2.5.1 Patience 2.5.2 Attention to details	2.1 Performing quality assurance practices 2.2 Complying quality assurance requirements 2.3 Complying to cost-effective measures 2.4 Communication skills

RANGE OF VARIABLES

VARIABLE	RANGE
1. Entrepreneurial mindset	May include (but not limited to) workplace thinking relating to: <ul style="list-style-type: none"> 1.1 Economy in the use of resources 1.2 Waste management 1.3 Quality-consciousness 1.4 Cost-consciousness 1.5 Safety- and health- consciousness
2. Quality assurance practices	May include but not limited to: <ul style="list-style-type: none"> 2.1 Use of quality procedures manual 2.2 Quality policy 2.3 Best/Good practices 2.4 Continuous improvement program
3. Reliable sources	May include but not limited to: <ul style="list-style-type: none"> 3.1 Supervisors 3.2 Colleagues 3.3 Clients/Partners

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Demonstrated affirmation of entrepreneurial mindset 1.2 Observed entrepreneurial practices 1.3 Complied with cost effective measures
2. Resource Implications	The following resources should be provided: 2.1 Simulated or actual workplace 2.2 Tools, materials and supplies needed to demonstrate the required tasks 2.3 References and manuals
3. Methods of Assessment	Competency in this unit may be assessed through : 3.1 Written examination 3.2 Demonstration/observation with oral questioning 3.3 Third-party report
4. Context of Assessment	4.1 Competency may be assessed in workplace or in a simulated workplace setting 4.2 Assessment shall be observed while tasks are being undertaken whether individually or in-group

COMMON COMPETENCIES

UNIT OF COMPETENCY : **APPLY FOOD SAFETY AND SANITATION**

UNIT CODE : **AGR741201**

UNIT DESCRIPTOR : This unit covers skills and attitude required to apply food safety and sanitation in the workplace

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Wear Personal Protective Equipment	1.1 Personal protective equipment are checked according to <i>manufacturer's specifications</i> . 1.2 Personal protective equipment are worn according to the job requirement.	1.1 Good Food Manufacturing Practices 1.2 Parts and functions of personal protective equipment 1.3 First Aid Kit 1.4 Sanitizing equipment	1.1 Practicing GMP
2. Observe Personal Hygiene and Good Grooming	2.1 Personal hygiene and good grooming is practiced in line with <i>workplace health and safety requirements</i> .	2.1 Good grooming and personal hygiene	2.1 Good grooming and personal hygiene practices
3. Implement Food Sanitation Practices	3.1 Sanitary food handling practices are implemented in line with workplace sanitation regulations. 3.2 Safety measures are observed in line with workplace safety practices.	3.1 Proper waste disposal 3.2 Environmental protection and concerns 3.3 Food safety principles and practices 3.4 TQM and other food quality system principles	3.1 Practicing Food safety
4. Render Safety Measures and First Aid Procedures	4.1 <i>Safety measures</i> are applied according to workplace rules and regulations. 4.2 <i>First aid procedures</i> are applied and coordinated with concerned personnel according to workplace standard operating procedures.	4.1 Parts and functions of personal protective equipment 4.2 First Aid Kit	4.1 Practicing PPE 4.2 Applying first aid treatment

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
5. Implement housekeeping activities	5.1 Work area and surroundings are cleaned in accordance with workplace health and safety regulations. 5.2 Waste is disposed according to organization's waste disposal system. 5.3 Hazards in the work area are recognized and reported to designated personnel according to workplace procedures.	5.1 Housekeeping / 5's 5.2 Proper waste disposal	5.1 Implementing housekeeping activities 5.2 Practicing proper waste disposal 5.3 Coordination skills

RANGE OF VARIABLES

VARIABLE	RANGE
1. Manufacturer's Specifications	Manufacturer's specifications may include but not limited to: <ul style="list-style-type: none"> 1.1 Handling 1.2 Operating 1.3 Discharge Label 1.4 Reporting 1.5 Testing 1.6 Positioning 1.7 Refilling
2. Personal Protective Equipment	Personal Protective Equipment may include but not limited to: <ul style="list-style-type: none"> 2.1 Apron/laboratory gown 2.2 Mouth masks 2.3 Gloves 2.4 Rubber boots/safety shoes 2.5 Head gears such as caps, hair nets, earl plug
3. Workplace Health and Safety Requirements	Workplace and Safety Requirements may include: <ul style="list-style-type: none"> 3.1 Health/Medical Certificate 3.2 DOLE requirements 3.3 BFAD requirements 3.4 Personal Hygiene and good grooming 3.5 Plant Sanitation and waste management
4. Safety Measures	Safety measures may include but not limited to: <ul style="list-style-type: none"> 4.1 Labeling of chemicals and other sanitizing agents 4.2 Installation of fire fighting equipment in the work area 4.3 Installation of safety signages and symbols 4.4 Implementation of 5S in the work area 4.5 Removal of combustible material in the work area
5. First Aid Procedures	First Aid Procedures may include but not limited to: <ul style="list-style-type: none"> 5.1 Mouth to mouth resuscitation 5.2 CPR 5.3 Application of tourniquet 5.4 Applying pressure to bleeding wounds or cuts 5.5 First aid treatment for burned victims
6. Hazards	Hazards in the workplace may include but not limited to: <ul style="list-style-type: none"> 6.1 Physical 6.2 Biological 6.3 Chemical

EVIDENCE GUIDE

1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Cleaned, checked and sanitized personal protective equipment 1.2 Practiced proper personal hygiene and good grooming 1.3 Implemented workplace food safety practices 1.4 Applied first aid measures to victims 1.5 Implemented good housekeeping activities in the work area
2. Resource implications	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 2.1 Work area/station 2.2 First Aid kit 2.3 PPE relevant to the activities 2.4 Fire extinguisher 2.5 Stretcher 2.6 Materials, tools and equipment relevant to the unit of competency
3. Method of assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 3.1 A combination of direct observation and questioning of a candidate processing foods
4. Context of assessment	<ul style="list-style-type: none"> 4.1 Assessment should occur on the job or in a simulated workplace

UNIT OF COMPETENCY : USE STANDARD MEASURING DEVICES / INSTRUMENTS

UNIT CODE : AGR741202

UNIT DESCRIPTOR : This unit covers skills and attitude required to use standard measuring devices, instruments in the workplace.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify Standard Measuring Devices and Instruments	1.1 Standard measuring devices and instruments are identified according to manufacturer's specifications. 1.2 Devices and instruments for measuring are properly checked, sanitized and calibrated prior to use.	1.1 Safe handling of measuring devices and instruments 1.2 Specifications and functions of measuring devices and instruments 1.3 Defects and breakages of measuring devices and instruments 1.4 Procedures in sanitizing and calibrating and stowing equipment and instruments	1.1 Communication skills 1.2 Sanitary handling of devices and instruments 1.3 Calibrating skills
2. Review the Procedures in Using Standard Measuring Devices and Instruments	2.1 Procedures in using the standard measuring devices and instruments are recalled according to manufacturer's specifications. 2.1 Printed procedures/ brochures/ catalogues are consulted according to specified food processing methods .	2.1 Standard measuring devices 2.2 Food processing methods	2.1 Recalling procedures in using standard measuring devices and instruments 2.2 Consulting printed procedures/ brochures/ catalogues

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Follow procedures of using measuring devices and instruments	3.1 Methods/practices of using measuring devices and instruments are strictly observed according to manufacturer's specifications and workplace requirements. 3.2 Measuring devices and instruments are cleaned, wiped dry and stowed after use to ensure conformity with workplace requirements.	3.1 Procedures in cleaning, and stowing equipment and instruments	3.1 Measuring devices and instruments 3.2 Cleaning and stowing measuring devices and instruments

RANGE OF VARIABLES

VARIABLE	RANGE
1. Standard Measuring Devices	Standard Measuring Devices may include but not limited to the following: <ol style="list-style-type: none"> 1.1 Weighing scales and balances of various capacities and sensitivities 1.2 Measuring cups of varying capacities for dry ingredients 1.3 Measuring cups of varying capacities for liquid ingredients
2. Standard Measuring Instruments	Standard Measuring Instruments may include but not limited to the following: <ol style="list-style-type: none"> 2.1 Salinometer 2.2 Thermometers of varying temperature range (0-300 C) 2.3 Refractometer of varying range (0 – 90 B) 2.4 Glasswares like cylinders, beakers, flasks) of varying graduations
3. Food Processing Methods	Food Processing Methods include the following: <ol style="list-style-type: none"> 3.1 Process foods by Salting, Curing and Smoking 3.2 Process foods by Fermentation and Pickling 3.3 Process foods by Canning and Bottling 3.4 Process foods by Sugar Concentration 3.5 Process foods by Drying and Dehydration

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Identified, prepared and calibrated standard measuring devices and instruments 1.2 Followed correctly the procedures in using standard measuring devices and instruments 1.3 Followed proper cleaning and sanitizing and stowing procedures of measuring devices and equipment before and after use
2. Resource implications	The following resources MUST be provided: 2.1 Work area/station 2.2 Materials, tools and equipment relevant to the Unit of Competency
3. Method of assessment	Competency may be assessed through: 3.1 Direct observation and questioning of a candidate using measuring devices and instruments
4. Context of assessment	4.1 Assessment should occur on the job or in a simulated workplace

UNIT OF COMPETENCY : USE FOOD PROCESSING TOOLS, EQUIPMENT AND UTENSILS

UNIT CODE : AGR741203

UNIT DESCRIPTOR : This unit covers skills and attitude required to operate food processing tools, equipment and instruments in the workplace.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Perform Pre-Operation Activities	1.1 Appropriate tools and equipment/ utensils are assembled according to <i>food processing method.</i> 1.2 <i>Food processing tools and equipment / utensils</i> are inspected and checked according to manufacturer's specifications. 1.3 Food processing equipment is set up, adjusted and readied according to job requirements.	1.1 Equipment, tools and instruments: Parts and Functions 1.2 Written and oral communication 1.3 Interpreting manufacturer's specifications 1.4 Following manufacturer's manual	1.1 Machine parts tear down and assembly 1.2 Inspecting and checking condition of equipment/ machines 1.3 Reporting equipment/ machine, tools, instruments breakdown and recording same in standard forms 1.4 Communication skills

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Operate Food processing equipment	2.1 Food processing equipment is switched on according to <i>manufacturer's specifications.</i> 2.2 Performance of food processing equipment is checked to ensure conformity with specified output. 2.3 Operation of food processing equipment is managed to achieve planned outcomes. 2.4 Minor trouble shooting on food processing tools, equipment and utensils is performed when necessary	2.1 Following manufacturer's manual 2.2 Equipment/ machine wear and tear process	2.1 Inspecting and checking condition of equipment/ machines 2.2 Performing minor troubleshooting

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Perform Post-Operation Activities	3.1 Food processing equipment is switched off and unplugged after operation in accordance with manufacturer's specifications. 3.2 Food processing tools, equipment and instruments are cleaned, sanitized and stowed as required according to manufacturer's specifications and workplace policies and regulations. 3.3 Minor preventive maintenance on equipment is performed in line with organization's maintenance system. 3.4 Main machine parts are inspected and checked in line with organization's policy. 3.5 Condition of machine is monitored to ensure serviceability in accordance with workplace rules and regulations	3.1 Sanitizing agents: Uses and Specification 3.2 Proper cleaning and stowing of tools and equipment/instruments 3.3 Minor preventive maintenance	3.1 Sanitizing, cleaning and stowing measuring devices and instruments 3.2 Performing minor preventive maintenance 3.3 Performing regular maintenance

RANGE OF VARIABLES

VARIABLE	RANGE
1. Food Processing Methods	Food Processing Methods include: <ul style="list-style-type: none"> 1.1 Salting 1.2 Curing 1.3 Smoking 1.4 Fermentation 1.5 Pickling 1.6 Canning 1.7 Bottling 1.8 Sugar concentration 1.9 Drying 1.10 Dehydration
2. Food Processing Tools, Equipment and Utensils	Tools, Equipment and Utensils may include but not limited to: <ul style="list-style-type: none"> 2.1 Tools <ul style="list-style-type: none"> 2.1.1 Cutting implements such as: <ul style="list-style-type: none"> 2.1.2 Knives 2.1.3 Slicer 2.1.4 Vegetable cutter 2.1.5 Cutter 2.1.6 Peeler 2.1.7 Measuring spoons and cups 2.1.8 steam jacketed kettle lifter 2.1.9 Scales 2.1.10 Exhaust box 2.1.11 wire basket 2.1.12 Syringe and needle 2.1.13 Blow torch 2.1.14 Cooking tools like: <ul style="list-style-type: none"> 2.1.15 Saucepans 2.1.16 Non-stick pan 2.1.17 Containers for Fermentation 2.1.18 Large stoneware 2.1.19 Crocks 2.1.20 Food-grade plastic containers 2.1.21 Large glass jars 2.1.22 A heavy plate or glass lid that fits down inside the container 2.1.23 Apparatus/Instruments <ul style="list-style-type: none"> 2.1.23.1 Salinometer 2.1.23.2 Polyscalers 2.1.23.3 Weighing scales of varying capacities & sensitivities 2.1.23.4 Refractometer 2.1.23.5 Jelly thermometer 2.1.23.6 Politer 2.1.23.7 Candy thermometer

VARIABLE	RANGE
	<p>2.2 Equipment</p> <p>2.2.1 Cold storage equipment like:</p> <p>2.2.2 Refrigerators</p> <p>2.2.3 Freezer</p> <p>2.2.4 Chiller</p> <p>2.2.5 Smoke house</p> <p>2.2.6 Oven</p> <p>2.2.7 Food processor</p> <p>2.2.8 Pressure cooker</p> <p>2.2.9 Sealers (can & plastic)</p> <p>2.2.10 Plastic protect cap</p> <p>2.2.11 Jack lifts</p> <p>2.2.12 Sealer</p> <p>2.2.13 Wheelers</p> <p>2.2.14 Soaking vat</p> <p>2.2.15 Stove/burner</p> <p>2.2.16 Meat grinder/chopper</p> <p>2.2.17 Tumbler</p> <p>2.2.18 Meat slicer</p> <p>2.2.19 Octo clam</p> <p>2.2.20 Sausage stuffer</p> <p>2.2.21 Trolleys</p> <p>2.2.22 Vacuum packaging</p> <p>2.2.23 Machine</p> <p>2.2.24 Impulse sealer</p> <p>2.2.25 Machine sealer</p> <p>2.2.26 blanching machine</p> <p>2.2.27 Soaking container</p> <p>2.2.28 Fermentation vat</p> <p>2.2.29 Grinder</p> <p>2.2.30 sterilizer mixer</p> <p>2.2.31 Enamel kettle/vat</p> <p>2.3 Utensils</p> <p>2.3.1 Kitchen utensils like:</p> <p>2.3.2 Casserole</p> <p>2.3.3 Chopping boards</p> <p>2.3.4 Colanders</p> <p>2.3.5 Mixing bowls</p> <p>2.3.6 Food tongs</p> <p>2.3.7 Spoon ladder</p> <p>2.3.8 Wooden ladle</p> <p>2.3.9 Wooden spoon</p> <p>2.3.10 Bowls made from:</p> <p>2.3.10.1 Stoneware</p> <p>2.3.10.2 Glass</p> <p>2.3.10.3 Aluminum</p> <p>2.3.10.4 stainless steel</p> <p>2.3.10.5 unchipped enamelware</p> <p>2.3.10.6 Funnel</p> <p>2.3.10.7 Strainer</p> <p>2.3.10.8 Strainers</p> <p>2.3.10.9 Exhauster</p>

VARIABLE	RANGE
	2.3.10.10 juice extractor 2.3.10.11 steamer 2.3.10.12 basting spoons paddle 2.3.10.13 Sorting tray 2.3.10.14 Smoking trays 2.3.10.15 Utility trays 2.3.10.16 Food tray
3. Manufacturer's Specifications	Manufacturer's specifications may include but not limited to: 3.1 Handling requirements 3.2 Operating requirements 3.3 Discharge Label 3.4 Reporting 3.5 Testing 3.6 Positioning 3.7 Refilling
4. Minor Preventive Machine Maintenance	Minor Preventive Machine Maintenance may include but not limited to checking of the following: 4.1 Machine temperature 4.2 Hydraulic fluid 4.3 Wear and surface condition 4.4 Crack 4.5 Leak detection 4.6 Vibration 4.7 Corrosion/erosion 4.8 Electric insulation
5. Condition of Machine	May include: 5.1 Serviceable 5.2 Repairable 5.3 Defective

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Assembled, inspected, checked and sanitized appropriate tools and equipment/instruments 1.2 Set-up, adjusted and readied tools and equipment and instruments according to requirements 1.3 Operated and monitored performance of equipment to ensure specified output 1.4 Performed post operation activities 1.5 Performed minor trouble shooting on food processing tools, equipment and utensils
<p>2. Methods of Assessment</p>	<p>Competency in this unit must be assessed through:</p> <ul style="list-style-type: none"> 2.1 Direct observation and questioning of a candidate operating food processing tools and equipment/instruments 2.2 Submission of written report on the performance and condition of equipment/machine, tools, instruments used.
<p>3. Resource Implications</p>	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 3.1 Work area/station 3.2 Materials, tools and equipment relevant to the Unit of Competency
<p>4. Context of Assessment</p>	<ul style="list-style-type: none"> 4.1 Assessment should occur on the job or in a simulated workplace

UNIT OF COMPETENCY : IMPLEMENT GOOD MANUFACTURING PRACTICE AND PROCEDURES

UNIT CODE : AGR741205

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to comply with relevant Good Manufacturing Practice (GMP) codes through the implementation of workplace GMP and quality procedures

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify requirements of GMP related to own work	1.1 Sources of information on GMP requirements are located. 1.2 GMP requirements and responsibilities related to own work are identified.	1.1 GMP Requirements 1.2 GMP Codes of practice, policies and procedures 1.3 GMP Role of internal and external auditors 1.4 Contamination events and performance improvement processes procedures 1.5 Personal clothing and footwear requirements at work areas 1.6 Use of personal clothing, storage and disposal requirements 1.7 Micro biological, physical and chemical contaminants 1.8 Basic concepts of quality assurance 1.9 Control methods and procedures used in GMP: 1.20 GMP responsibilities and requirements relating to work role 1.21 Basic properties, handling and storage requirements of raw materials, packaging	1.1 Planning and organizing work (time management) 1.2 Working with others and in teams 1.3 Practicing GMP 1.4 Following contamination investigation procedures

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		components and final product 1.22 Standards for materials, equipment and utensils used in the work area 1.23 Recall and traceability procedures relevant to work role 1.24 Procedures for identifying or isolating materials or product of unacceptable quality 1.25 Record keeping and the recording requirements of GMP	
2. Observe personal hygiene and conduct to meet GMP requirements	2.1 Personal hygiene meets GMP requirements. 2.2 Clothing is prepared, used, stored and disposed of according to GMP and workplace procedures. 2.3 Personal movement around the workplace complies with area entry and exit procedures.	2.1 Personal hygiene 2.2 PPE	2.1 Practicing GMP

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Implement GMP requirements when carrying out work activities	3.1 GMP requirements are identified. 3.2 Work area , materials, equipment and product are routinely monitored to ensure compliance with GMP requirements. 3.3 Raw materials, packaging components and product are handled according to GMP and workplace procedures. 3.4 Workplace procedures to control resource allocation and process are followed to meet GMP requirements. 3.5 Common forms of contamination are identified and appropriate control measures are followed according to GMP requirements. 3.6 The workplace is maintained in a clean and tidy order to meet GMP housekeeping standard.	3.1 Good Manufacturing Practices (GMP) 3.2 Control resource allocation and processes in the workplace 3.3 Contaminants 3.4 Maintaining cleanliness in the workplace	3.1 Practicing GMP

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
4. Participate in improving GMP	4.1 Processes, practices or conditions which could result in non-compliance with GMP are identified and reported according to workplace reporting requirements. 4.2 Corrective action is implemented within level of responsibility. 4.3 GMP issues are raised with designated personnel.	4.1 Non-compliance and corrective action in GMP	4. Practicing GMP
5. Participate in validation processes	5.1 Validation procedures are followed to GMP requirements. 5.2 Issues arising from validation are raised with designated personnel. 5.3 Validation procedures are documented to meet GMP requirements.	5.1 Validation procedures in GMP	5.1 Practicing GMP
6. Complete workplace documentation to support GMP	6.1 Documentation and recording requirements are identified. 6.2 Information is recorded according to workplace reporting procedures to meet GMP requirements.	6.1 Documentation and workplace reporting procedures in GMP	6.1 Practicing GMP

RANGE OF VARIABLES

VARIABLE	RANGE
1. OH&S requirements	May include: 1.1 OH&S legal requirements 1.2 Enterprise OH&S policies, procedures and programs
2. Work	May include: 2.1 Relevant regulations regarding food processing and food safety regulations 2.2 Department of Health – Food Establishments – Code of Sanitation of the Philippines (P.D.856) 2.3 Environment Management Bureau regulations regarding emissions, waste treatment, noise and effluent treatment and control
3. Hygiene and sanitation requirements	May include: 3.1 Department of Health – Food Establishments – Code of Sanitation of the Philippines (P.D.856) 3.2 Requirements set out by Bureau of Food and Drugs 3.3 Workplace requirements
4. Workplace requirements	May include: 4.1 Work instructions 4.2 Standard operating procedures 4.3 OH&S requirements 4.4 Quality assurance requirements 4.5 Equipment manufacturers’ advice 4.6 Material Safety Data Sheets 4.7 Codes of Practice and related advice
5. Products	May include: 5.1 Raw materials 5.2 Packaging components and consumables 5.3 Part-processed product 5.4 Finished product and cleaning materials
6. Responsibility and reporting systems	May include: 6.1 Responsibility for applying Good Manufacturing Practice relates to the person’s work area 6.2 Reporting systems may include electronic and manual data recording and storage systems

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidences that the candidate :</p> <ol style="list-style-type: none"> 1.1 Located and followed workplace information relating to GMP responsibilities 1.2 Maintained personal hygiene consistent with GMP 1.3 Followed workplace procedures when moving around the workplace and/or from one task to another to maintain GMP 1.4 Used, stored and disposed of appropriate clothing/footwear as required by work tasks and consistent with GMP 1.5 Identified and reported situations that do or could compromise GMP 1.6 Applied appropriate control measures to control contamination 1.7 Recorded results of monitoring, and maintain records as required by GMP 1.8 Followed validation procedures within level of responsibility 1.9 Identified and responded to out-of-specification or unacceptable raw materials, packaging components, final or part processed product within level of responsibility 1.10 Followed procedures to isolate or quarantine non-conforming product 1.11 Handled, cleaned and stored equipment, utensils, raw materials, packaging components and related items according to GMP and workplace procedures 1.12 Maintained GMP for own work 1.13 Handled and/or disposed of out-of-specification or contaminated materials, packaging components/consumables and product, waste and recyclable material according to GMP as required by work responsibilities 1.14 Maintained the work area in a clean and tidy state 1.15 Identified and reported signs of pest infestation
<p>2. Resource Implication</p>	<p>The following resources should be provided:</p> <ol style="list-style-type: none"> 2.1 Workplace location and access to workplace policies 2.2 Materials relevant to the proposed activity and tasks
<p>3. Methods of Assessment</p>	<p>Competency in this unit must be assessed using at least two (2) of the following methods:</p> <ol style="list-style-type: none"> 3.1 A combination of direct observation and oral questioning 3.2 Written report 3.3 Written Test 3.4 Portfolio
<p>4. Context of Assessment</p>	<ol style="list-style-type: none"> 4.1 Assessment should occur on the job or in a simulated workplace

CORE COMPETENCIES

UNIT OF COMPETENCY : **ASSIST IN QUALITY INSPECTION**

UNIT CODE : **PFB751342**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to conduct preparatory activities, check raw materials, in-process products and finished products, and conduct post operation activities. It includes sampling requirements, sample preparation and information, preparing, sanitizing and storing of tools and equipment, recording, and waste disposal.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Conduct preparatory activities	1.1 Sampling requirements are followed in accordance with the sampling plan. 1.2 Tools and equipment are prepared according to industry guidelines . 1.3 Tools and equipment are calibrated according to industry guidelines . 1.4 Defective tools and equipment are reported to immediate supervisor according to workplace procedures. 1.5 Preparation area is cleaned and maintained according to industry guidelines .	1.1 Sampling requirements, methods and recording 1.2 Good Laboratory Practices 1.3 Uses, function and operation of tools and equipment 1.4 Preparation of different tools and materials 1.5 Calibration of tools and equipment 1.6 Defective tools and equipment 1.7 AO 153 (cGMP) 1.8 Halal Principles 1.9 Food Safety Act of 2013 1.10 Accomplishment of checklist report 1.11 Interpretation and following instructions 1.12 OSH Rule No. 1060 – Premises of Establishments 1.13 OSH Rule No. 1080 – Personal Protective Equipment & Devices 1.14 OSH Rule No. 1150 – Materials Handling &	1.1 Following sampling requirements 1.2 Recording and reporting skills 1.3 Calibration skills 1.4 Identifying defective tools and equipment 1.5 Cleaning and sanitizing skills

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		Storage 1.15 RA 9275 – Clean Water Act of 2004	
2. Check raw materials, in-process products and finished products	<p>2.1 Raw materials, packaging materials and delivery land vehicle are checked according to industry guidelines.</p> <p>2.2 Samples are prepared according to sampling procedures and sampling plan.</p> <p>2.3 Sample information is recorded according to industry guidelines.</p> <p>2.4 Quality control checklist is accomplished based on workplace procedure.</p> <p>2.5 Raw Materials, In-process products and Finished Products are checked according to industry guidelines and free from defects.</p> <p>2.6 Acceptable raw materials and products are weighed and kept in accordance with industry guidelines.</p>	<p>2.1 Raw materials and product</p> <p>2.1.1 Receiving and handling</p> <p>2.1.2 Disposal of defective raw materials and product</p> <p>2.1.3 Product characteristics</p> <p>2.2 Sampling procedures</p> <p>2.3 Sampling plan</p> <p>2.4 Sampling information</p> <p>2.5 Preparing and handling of samples</p> <p>2.6 Accomplishment of checklist</p> <p>2.7 OSH Rule No. 1080 – Personal Protective Equipment & Devices</p> <p>2.8 OSH Rule No. 1150 – Materials Handling & Storage</p> <p>2.9 RA 9003 – Ecological Solid Waste Management Act of 2000</p>	<p>2.1 Sampling collection skills</p> <p>2.2 Preparing and handling skills</p> <p>2.3 Cleaning skills</p> <p>2.4 Receiving and handling skills</p> <p>2.5 Skills in determining acceptable and defective products</p>
3. Conduct post operation activities	<p>3.1 Equipment and tools are cleaned and kept according to industry guidelines.</p> <p>3.2 Records are completed and reported according to workplace procedures.</p>	<p>3.1 Different wastes</p> <p>3.2 OSH Rule No. 1080 – Personal Protective Equipment & Devices</p> <p>3.3 OSH Rule No. 1150 – Materials Handling & Storage</p>	<p>3.1 Recording and reporting skills</p> <p>3.2 Waste segregation and disposal skills</p> <p>3.3 Cleaning and storing skills</p> <p>3.4 Communication skills</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>3.3 Off-specs raw materials and products are reported to immediate supervisor according to organizational guidelines.</p> <p>3.4 Wastes are disposed according to waste management practices.</p>	<p>3.4 RA 9003- Ecological Solid Waste Management Act of 2000</p>	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Sampling requirements	Sampling requirements includes: <ul style="list-style-type: none"> 1.1 Under controlled conditions <ul style="list-style-type: none"> 1.1.1 Time 1.1.2 Temperature 1.1.3 Light 1.1.4 Humidity 1.1.5 Sanitary conditions 1.1.6 Weight 1.1.7 Quantity
2. Tools and equipment	Tools and equipment may include: <ul style="list-style-type: none"> 2.1 Tools: <ul style="list-style-type: none"> 2.1.1 Weighing scale 2.1.2 Knives 2.1.3 Bucket 2.1.4 Chopping board 2.1.5 Sampling borer (buriki) 2.1.6 Forceps 2.1.7 Thermometer 2.1.8 Beaker 2.1.9 Sieve or strainer 2.1.10 Graduated cylinder 2.1.11 Sets of standard weights 2.1.12 Refractometer (with work instructions) 2.1.13 pH meter (with work instructions) 2.1.14 Containers <ul style="list-style-type: none"> 2.1.14.1 Trays 2.1.14.2 Canister 2.2 Equipment: <ul style="list-style-type: none"> 2.2.1 Stainless steel tables / Receiving table 2.2.2 Belt conveyor and roller sorter
3. Preparation of tools and equipment	Preparation of tools, materials and equipment includes: <ul style="list-style-type: none"> 3.1 Checking 3.2 Cleaning 3.3 Sanitizing 3.4 Calibrating
4. Samples	Samples may include: <ul style="list-style-type: none"> 4.1 Raw materials <ul style="list-style-type: none"> 4.1.1 Condition and Certificate of Analysis (COA) of raw materials 4.2 Goods Produce in process 4.3 Finished products 4.4 Packaging materials and supplies 4.5 Packaged products
5. Sample information	Sample information may include: <ul style="list-style-type: none"> 5.1 Date of sampling 5.2 Location of sampling 5.3 Origin (source) of sample 5.4 Amount of sample / sample size 5.5 Quality attributes

VARIABLE	RANGE
	5.6 Other physical properties (e.g. moisture, size, weight) characteristics of sample
6. Preparation of samples	Preparation of samples includes: 6.1 Collection 6.2 Weighing 6.3 Packaging 6.4 Labeling 6.5 Storing 6.6 Handling
7. Raw materials, in-process products and finished products	Raw materials and products may include: 7.1 Raw materials 7.1.1 Livestock meat 7.1.2 Poultry 7.1.3 Fish and other marine 7.1.4 Cereals and starches 7.1.5 Fruits and vegetables 7.1.6 Root crops 7.1.7 Nuts 7.1.8 Seeds 7.1.9 Fats and oils 7.1.10 Processing supplies 7.1.11 Salt 7.1.12 Sugar and sweeteners 7.1.13 Condiments 7.1.14 Spices 7.1.15 Herbs 7.1.16 Food additives 7.2 In-process products (based from the process flow of each target product) 7.2.1 Finished Products 7.2.2 Livestock products 7.2.3 Poultry products 7.2.4 Fish and other marine products 7.2.5 Cereals and starches products 7.2.6 Fruits and vegetables products 7.2.7 Root crops products 7.2.8 Nuts products 7.2.9 Seeds products 7.2.10 Fats and oils products
8. Defects	Defects may include: 8.1 For raw materials: 8.1.1 Blemishes 8.1.2 Irregular size and shape 8.1.3 Off color 8.1.4 Off-odor 8.1.5 Stale 8.1.6 Insect/ disease damage 8.1.7 Presence of insects and other contaminants, molds, etc. 8.1.8 Discoloration 8.1.9 Spoilage

VARIABLE	RANGE
	8.2 For in-processed/finished products: 8.2.1 Damaged packaging 8.2.2 Packaging materials(off-color, deformed, cracked) 8.2.3 Contaminated contents 8.2.4 Off-odor thawed (for frozen foods) 8.2.5 Physical and chemical attributes
9. Wastes	Wastes includes: 9.1 Defective raw materials and products 9.2 Refused raw materials and products 9.3 Used containers 9.4 Defective packaging materials
10. Records	Records may include: 10.1 Items inspected / sorted 10.2 Inspector's (Supervisor) name 10.3 Date and place of inspection 10.4 Spoilage and rejects 10.5 Yields and recoveries 10.6 Supplier details 10.7 Monitoring checklist
11. Reports	Reports includes: 11.1 Oral 11.2 Written
12. Industry guidelines	Industry guidelines may include: 12.1 Manufacturer's requirements 12.2 Workplace requirements/procedures 12.3 Company standards 12.4 Standard operating procedures 12.5 Industry standards 12.6 Organizational guidelines 12.7 OSH Rule No. 1060 – Premises of Establishments 12.8 OSH Rule No. 1080 – Personal Protective Equipment & Devices 12.9 OSH Rule No. 1150 – Materials Handling & Storage 12.10 RA 9003 – Ecological Solid Waste Management Act of 2000 12.11 RA 9275 – Clean Water Act of 2004

EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Identified, checked and calibrated appropriate tools and equipment 1.2 Identified sampling requirements 1.3 Collected, handled and prepared samples 1.4 Recorded sample information 1.5 Followed work procedures
2. Methods of Assessment	<p>Competency must be assessed through:</p> <ul style="list-style-type: none"> 2.1 Direct observation with oral questioning 2.2 Demonstration with oral questioning
3. Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 3.1 Specific work area/station 3.2 Equipment and tools for sampling 3.3 Materials relevant to the proposed activity 3.4 Relevant workplace procedures, schedules and records
4. Context of Assessment	<ul style="list-style-type: none"> 4.1 Assessment should occur on the job or in a simulated workplace 4.2 Ability to apply competency over time and on a number of occasions.

UNIT OF COMPETENCY : DISPENSE MATERIALS

UNIT CODE : PFB751343

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to prepare, dispense, and load and unload raw materials, products and supplies. It involves pre-start checks, dispensing and labeling of materials, recording, and proper handling of materials.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Perform preparatory activities	1.1 Materials are received according to industry guidelines . 1.2 Containers/bags and labels are prepared according to industry guidelines . 1.3 Pre-start checks are carried out according to industry guidelines .	1.1 Personal protective equipment (PPE): 1.1.1 Apron/ laboratory gown 1.1.2 Face masks 1.1.3 Gloves 1.1.4 Rubber boots/safety shoes 1.1.5 Head gears such as caps, hair nets, ear plug, sweat band 1.2 OSHS requirements: 1.2.1 Health/ medical certificate 1.2.2 DOLE requirements 1.2.3 Personal hygiene and good grooming 1.2.4 AO 153 1.3 OSH Rule No. 1080 – Personal Protective Equipment & Devices 1.4 OSH Rule No. 1150 – Materials Handling & Storage	1.1 Perform inspection, checking and reporting condition of equipment/ machines before, during and after operation 1.2 Receiving materials 1.3 Preparing containers/ bags and labels 1.4 Conducting pre-start checks 1.5 Applying OSHS 1.6 Wearing of PPEs

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Conduct dispensing activities	2.1 Dispensed materials are labeled according to industry guidelines . 2.2 Accuracy and variation of measuring, dispensing and weighing equipment is monitored and reported according to workplace procedures. 2.3 Workplace is maintained according to industry guidelines .	2.1 Labelling Procedures 2.2 Use of equipment 2.3 Monitoring and reporting procedures 2.4 7S of Good Housekeeping 2.5 AO 153 2.6 OSH Rule No. 1080 – Personal Protective Equipment & Devices 2.7 OSH Rule No. 1150 – Materials Handling & Storage	2.1 Dispense/measure materials and equipment 2.2 Housekeeping skills 2.3 Labeling dispensed materials 2.4 Monitoring accuracy and variation of measuring/dispensing and weighing equipment 2.5 Maintaining workplace
3. Complete the dispensing process	3.1 Dispensing equipment is shut down and cleaned according to industry guidelines . 3.2 Maintenance requirements and unacceptable equipment/utensil conditions are reported according to workplace procedures. 3.3 Records are completed according to workplace procedures. 3.4 Waste management is practiced according to Ecological Solid Waste Management Act of 2000	3.1 Company's Dispensing procedures / Standard Operating Procedures 3.2 Standard Operating Procedures on preparing records/ documentation 3.3 OSH Rule No. 1080 – Personal Protective Equipment & Devices 3.4 OSH Rule No. 1150 – Materials Handling & Storage 3.5 RA 9003 – Ecological Solid Waste Management Act of 2000	3.1 Use of SOP in shutting down equipment 3.2 Cleaning skills 3.3 Preparing reports (filling-up forms) 3.4 Waste segregation and disposal skills 3.5 Shutting down dispensing equipment 3.6 Reporting maintenance requirements and unacceptable equipment/utensil conditions 3.7 Conducting record keeping

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
4. Load and unload raw materials, products and supplies	<p>4.1 Special dispensing of raw materials is performed according to <i>industry guidelines.</i></p> <p>4.2 Raw materials, products and supplies are unpacked according to <i>industry guidelines.</i></p> <p>4.3 Raw materials are piled according to <i>industry guidelines.</i></p> <p>4.4 Raw materials are dispensed in accordance to production sequence and <i>industry guidelines.</i></p>	<p>4.1 Occupational Health and Safety regulatory and legislative requirements</p> <p>4.1.1 Dangerous or hazardous raw materials</p> <p>4.1.2 Good Manufacturing Practices (GMP)</p> <p>4.2 Raw materials, products and/or supplies</p> <p>4.2.1 Special handling</p> <p>4.2.1.1 FIFO/FEFO</p> <p>4.2.2 Unpacking</p> <p>4.2.3 Documentation</p> <p>4.3 Identification of hazards and risks</p> <p>4.3.1 physical</p> <p>4.3.2 biological</p> <p>4.3.3 chemical</p> <p>4.4 cGMP</p> <p>4.5 HACCP</p> <p>4.6 Piling of raw materials</p> <p>4.7 Production sequence</p> <p>4.8 OSH Rule No. 1080 – Personal Protective Equipment & Devices</p> <p>4.9 OSH Rule No. 1150 – Materials Handling & Storage</p>	<p>4.1 OSHS observation</p> <p>4.2 GMP</p> <p>4.3 Use of PPE</p> <p>4.4 Handling and documentation skills</p> <p>4.5 Conducting special dispensing of raw materials</p> <p>4.6 Unpacking raw materials, products and supplies</p> <p>4.7 Piling raw materials</p> <p>4.8 Dispensing raw materials</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Materials	<p>Materials may include but not limited to bulk and non-bulk ingredients including pre-mixed ingredients</p> <ul style="list-style-type: none"> 1.1 Food additives <ul style="list-style-type: none"> 1.1.1 Colors 1.1.2 Flavors 1.1.3 Preservatives 1.1.4 Extenders 1.1.5 Binders 1.1.6 Cloudifier 1.2 Fruits and vegetables 1.3 Livestock meat 1.4 Poultry and poultry 1.5 Fish and other marine 1.6 Cereals and starches 1.7 Sugar and sweeteners 1.8 Fats and oils 1.9 Processing supplies <ul style="list-style-type: none"> 1.9.1 Salt 1.9.2 Sugar 1.9.3 Condiments 1.9.4 Spices 1.9.5 Herbs 1.9.6 Sauces 1.10 Packaging materials: <ul style="list-style-type: none"> 1.10.1 Bottles 1.10.2 Cans 1.10.3 Cups 1.10.4 Cup seal 1.10.5 Label 1.10.6 Pouches 1.10.7 Plastic bags 1.11 Secondary packaging materials: <ul style="list-style-type: none"> 1.11.1 Cartons
2. Measuring, dispensing and weighing equipment	<p>Measuring, dispensing and weighing equipment may include:</p> <ul style="list-style-type: none"> 2.1 Weighing scales (equipment) 2.2 Pipettes (tools) 2.3 Plastic Beaker (tools) 100ml, 250ml, 500ml 2.4 Graduated cylinders (liquid) 2.5 Measuring cups (dry and liquid) 2.6 Other dispensing instruments and adjuncts
3. Pre-start checks	<p>Pre-start checks may include but not limited to:</p> <ul style="list-style-type: none"> 3.1 Calibrating weighing scale 3.2 Following instructions for equipment settings 3.3 Confirming that weighing scale is cleaned and sanitized 3.4 Ensuring safety guards are in place 3.5 Ensuring that sensors and controls are correctly positioned

VARIABLE	RANGE
4. Label	Label may include: 4.1 Name of material 4.2 Batch number 4.3 Weight/Measure 4.4 Date of preparation 4.5 Operator/ inspector/issuer
5. Records	Records may include: 5.1 Materials used 5.2 Equipment used 5.3 Equipment faults, including repairs, servicing undertaken or recommended, preventive maintenance activities 5.4 Operational details 5.5 Labels 5.6 Requisition slip 5.7 Stock card 5.8 Order slip
6. Industry guidelines	Industry guidelines may include: 6.1 Workplace requirements/procedures 6.2 Manufacturer's specifications 6.3 Food processing requirements 6.4 Housekeeping standards 6.5 Standard operating procedures 6.6 OSH Rule No. 1080 – Personal Protective Equipment & Devices 6.7 OSH Rule No. 1150 – Materials Handling & Storage 6.8 RA 9003 – Ecological Solid Waste Management Act of 2000

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Prepared and monitored materials and equipment for dispensing 1.2 Dispensed materials are labelled 1.3 Used and cleaned dispensing equipment 1.4 Followed work procedures 1.5 Completed required records 1.6 Handled raw materials, products and supplies during loading and unloading 1.7 Practiced OSH during loading and unloading
<p>2. Methods of Assessment</p>	<p>Competency must be assessed through:</p> <ul style="list-style-type: none"> 2.1 Direct observation with oral questioning 2.2 Demonstration with oral questioning
<p>3. Resource Implications</p>	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 3.1 Specific work area/station 3.2 Equipment and tools for dispensing 3.3 Materials relevant to the proposed activity 3.4 Relevant workplace procedures, schedules and records
<p>4. Context of Assessment</p>	<ul style="list-style-type: none"> 4.1 Assessment should occur on the job or in a simulated workplace 4.2 Ability to apply competency over time and on a number of occasions

UNIT OF COMPETENCY : PREPARE PACKAGING MATERIALS AND SUPPLIES FOR PROCESSING

UNIT CODE : PFB751344

UNIT DESCRIPTOR : This unit deals with the skills, knowledge and attitudes required to acquire and prepare packaging materials and supplies for processing.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Acquire packaging materials and supplies for processing	1.1 Material requisition form is accomplished based on packaging requirements. 1.2 Packaging materials and supplies are selected according to production requirements Ecological Solid Waste Management Act of 2000. 1.3 Packaging materials and supplies are handled according to GMP requirement and OHS requirements . 1.4 Packaging materials are checked and received according to requisition and industry guidelines . 1.5 Deviation from requisitions is reported according to workplace procedures.	1.1 Principles and procedures for preparing raw materials 1.2 Proper handling of raw materials 1.3 Identification and proper use of cleaning/washing equipment, implements and utilities 1.4 Proper cleaning and/or washing procedure 1.5 Awareness of Codes or Regulations such as HACCP and GMP 1.6 OSH Rule No. 1080 – Personal Protective Equipment & Devices 1.7 OSH Rule No. 1150 – Materials Handling & Storage 1.8 Environment and pollution conscious 1.9 RA 9003- Ecological Solid Waste Management Act of 2000 1.10 Attitude: 1.10.1 Time conscious/punctual 1.10.2 Cost conscious	1.1 Accomplishing requisition form 1.2 Selecting packaging materials and supplies 1.3 Checking and receiving packaging materials 1.4 Handling packaging materials and supplies 1.5 Practicing workplace and OSHS requirements 1.6 Working with others and in teams 1.7 Basic mathematical skills (weights and measurements, ratios and proportions) 1.8 Sanitary food handling practices

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		1.10.3 Flexible / adaptable 1.10.4 Honest 1.10.5 Socially responsible 1.10.6 Dependable 1.10.7 Alert 1.10.8 Systematic and organized 1.10.9 Good team worker 1.10.10 Good listener and fast learner 1.10.11 Creative	
2. Prepare packaging materials	2.1 Packaging materials are cleaned according to required specifications and industry guidelines . 2.2 Pre-coding of packaging materials is performed following company practice. 2.3 Generic packaging is marked according to production schedule. 2.4 PPEs are worn following company practices.	2.1 Food safety principles and practices 2.2 Proper cleaning and/or washing procedure 2.3 Awareness of Codes or Regulations such as HACCP and GMP 2.4 OSH Rule No. 1080 – Personal Protective Equipment & Devices 2.5 OSH Rule No. 1150 – Materials Handling & Storage 2.6 Environmental protection and concerns 2.7 RA 9275– Clean Water Act of 2004 2.8 RA 9003- Ecological Solid Waste Management Act of 2000 2.9 Attitude 2.9.1 Time conscious/ punctual 2.9.2 Cost	2.1 Sanitary food handling practices 2.2 Cleaning packaging materials 2.3 Conducting pre-coding of packaging materials 2.4 Marking generic packaging 2.5 Wearing PPEs

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		conscious 2.9.3 Environment and pollution conscious 2.9.4 Flexible / adaptable 2.9.5 Honest 2.9.6 Socially responsible 2.9.7 Dependable 2.9.8 Alert 2.9.9 Systematic and organized 2.9.10 Good team worker 2.9.11 Good listener and fast learner 2.9.12 Creative	
3. Complete preparation of packaging materials	3.1 Records are completed according to workplace requirements. 3.2 Workplace is cleaned and sanitized according to company practice and industry guidelines . 3.3 PPEs are maintained according to company policy. 3.4 Waste management is practiced according to industry guidelines .	3.1 Recording and reporting procedures 3.2 Proper cleaning and/or washing procedure 3.3 Food safety principles and practices 3.4 Proper waste disposal 3.5 Awareness of Codes or Regulations such as HACCP and GMP 3.6 OSH Rule No. 1080 – Personal Protective Equipment & Devices 3.7 OSH Rule No. 1150 – Materials Handling & Storage 3.8 Environmental protection and concerns 3.9 RA 9275– Clean Water Act of 2004	3.1 Recording and reporting skills deviation from requisition 3.2 Communication skills (oral and written) 3.3 Sanitary food handling practices

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		3.10 RA 9003- Ecological Solid Waste Management Act of 2000 3.11 Attitude: 3.11.1 Time conscious/ punctual 3.11.2 Cost conscious 3.11.3 Environment and pollution conscious 3.11.4 Flexible / adaptable 3.11.5 Honest 3.11.6 Socially responsible 3.11.7 Dependable 3.11.8 Alert 3.11.9 Systematic and organized 3.11.10 Good team worker 3.11.11 Good listener and fast learner 3.11.12 Creative	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Packaging materials and supplies	Packaging materials and supplies may include: <ul style="list-style-type: none"> 1.1 Containers / Bottles / Cans 1.2 Caps 1.3 Cap seals 1.4 Labels 1.5 Pouches 1.6 Plastic bags 1.7 Secondary packaging including: <ul style="list-style-type: none"> 1.7.1 Cartons
2. GMP requirements	Workplace requirements may include: <ul style="list-style-type: none"> 2.1 Company policies and procedures 2.2 Standard operating procedures 2.3 Work instructions 2.4 Production schedules 2.5 Forms and Reports
3. OHS requirements	Occupational Health and Safety requirements may include: <ul style="list-style-type: none"> 3.1 Health/medical certificate 3.2 Personal hygiene and good grooming 3.3 Plant sanitation and waste management 3.4 Food Drugs Administration (FDA) requirements 3.5 PPE requirements 3.6 Apron/laboratory gown 3.7 Mouth masks 3.8 Gloves 3.9 Rubber boots 3.10 Head gears such as caps, hairnets, ear plugs 3.11 Sweat bands
4. Cleaning	Cleaning may include: <ul style="list-style-type: none"> 4.1 Washing 4.2 Brushing 4.3 Separation of foreign material such as dirt, hair, mud, etc. 4.4 Drying
5. Records	Records may include: <ul style="list-style-type: none"> 5.1 Materials used 5.2 Date of preparation 5.3 Location 5.4 Batch number 5.5 Weight/measure 5.6 Name of person who prepared material
6. Industry guidelines	May include: <ul style="list-style-type: none"> 6.1 RA 9275– Clean Water Act of 2004 6.2 RA 9003-Ecological Solid Waste Management Act of 2000 6.3 OSH Rule No. 1080 – Personal Protective Equipment & Devices 6.4 OSH Rule No. 1150 – Materials Handling & Storage

EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Acquired packaging materials and supplies for processing 1.2 Prepared packaging materials 1.3 Followed work procedures 1.4 Completed records and preparation of packaging
2. Methods of Assessment	<p>Competency must be assessed through:</p> <ul style="list-style-type: none"> 2.1 Direct observation with oral questioning 2.2 Demonstration with oral questioning
3. Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 3.1 Specific work area/station 3.2 Equipment and tools for sampling 3.3 Materials relevant to the proposed activity 3.4 Relevant workplace procedures, schedules and records
4. Context of Assessment	<ul style="list-style-type: none"> 4.1 Assessment should occur on the job or in a simulated workplace 4.2 Ability to apply competency over time and on a number of occasions.

UNIT OF COMPETENCY : OPERATE BASIC EQUIPMENT

UNIT CODE : PFB751345

UNIT DESCRIPTOR : This competency standard covers the skills, knowledge and attitudes required to prepare, operate and maintain basic equipment. It involves pre-operational checks, operation of basic machine/equipment, managing waste, and recording and reporting of damaged equipment.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Prepare equipment for use	1.1 Basic machine/equipment is accessed in accordance with assignment instructions and workplace requirements . 1.2 Routine pre-operational checks are carried out according to manufacturers' specifications and industry guidelines . 1.3 Pre-operational checklist is accomplished and submitted according to workplace procedures.	1.1 Types, characteristics and functions of basic equipment 1.2 Equipment operation and shut-down 1.3 Pre-operational checks and procedures 1.4 Routine maintenance procedures 1.5 Cleaning and sanitation procedures for work area and equipment 1.6 Security and storage of equipment and materials 1.7 Lock out and tag out procedures 1.8 Safe workplace procedures 1.9 Emergency procedures 1.10 Environmental and waste disposal procedures 1.11 Reporting and documentation requirements and processes 1.12 Relevant legislative provisions including OHS requirements 1.13 Awareness of	1.1 Operate basic equipment skills 1.2 Conducting pre-start checks on equipment 1.3 Applying safe workplace practices and procedures 1.4 Cleaning and sanitation procedures for work area and equipment 1.5 Locating emergency stop functions on equipment 1.6 Equipment shutting-down procedures 1.7 Following work procedures 1.8 Reading and following written information 1.9 Oral and written communication skills 1.10 Working with others and in teams 1.11 Time management 1.12 Recording and reporting skills

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		Codes or Regulations such as HACCP and GMP 1.14 OSH Rule No. 1070 – Occupational Health & Environmental Control 1.15 OSH Rule No. 1080 – Personal Protective Equipment & Devices 1.16 OSH Rule No. 1150 – Materials Handling & Storage 1.15 Attitude: 1.15.1 Accurate 1.15.2 Environment-conscious 1.15.3 Positive work values 1.15.4 Cost conscious 1.15.5 Safety conscious 1.15.6 Personal hygiene	
2. Operate equipment	2.1 Suitable <i>personal protective equipment</i> is used and maintained in accordance with <i>occupational health and safety (OHS) requirements, manufacturers' specifications and industry guidelines.</i> 2.2 Machine/ Equipment is operated in accordance with OHS requirements, manufacturers' specifications and <i>industry</i>	2.1 Personal protective equipment 2.2 Calibration and adjustment of basic food processing equipment 2.3 Equipment operation 2.4 Reporting of defective food processing equipment 2.5 Identification of out of specification product 2.6 OSH Rule No. 1070 – Occupational	2.1 Wear PPE 2.2 Calibrate and adjust equipment 2.3 Operate basic food processing equipment 2.4 Prepare report on out of specification production and defective equipment

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>guidelines.</p> <p>2.3 Malfunctioned equipment is reported according to workplace procedures.</p>	<p>Health & Environmental Control</p> <p>2.7 OSH Rule No. 1080 – Personal Protective Equipment & Devices</p> <p>2.8 OSH Rule No. 1150 – Materials Handling & Storage</p> <p>2.9 OSH Rule No. 1210 – Electrical Safety</p>	
3. Maintain equipment and resources	<p>3.1 Machine/ Equipment is shut down according to workplace procedures, manufacturers’ specifications, and industry guidelines.</p> <p>3.2 Work area, tools and machine/ equipment are cleaned, maintained and stored in accordance with workplace requirements, manufacturers’ specifications, and industry guidelines.</p> <p>3.3 Faulty or damaged machine/ equipment is reported for repair or replacement in accordance with workplace procedures and industry guidelines.</p>	<p>3.1 Procedure in shutting down machine/ equipment</p> <p>3.2 Cleaning machine/ equipment in accordance with cGMP</p> <p>3.3 Reporting of defective machine/ equipment</p> <p>3.4 OSH Rule No. 1070 – Occupational Health & Environmental Control</p> <p>3.5 OSH Rule No. 1080 – Personal Protective Equipment & Devices</p> <p>3.6 OSH Rule No. 1150 – Materials Handling & Storage</p> <p>3.7 RA 9003- Ecological Solid Waste Management Act of 2000</p> <p>3.8 RA 9275– Clean Water Act of 2004</p>	<p>3.1 Perform shutting-down of machine/ equipment</p> <p>3.2 Clean machine/ equipment in accordance with cGMP</p> <p>3.3 Accomplish checklist report on defective machine/ equipment</p> <p>3.4 Dispose waste according to workplace procedures</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>3.4 Waste generated by both the process and cleaning procedures is managed according to workplace procedures and <i>industry guidelines.</i></p> <p>3.5 <i>Records and reports</i> are completed in accordance with industry, legislative and workplace requirements.</p>		

RANGE OF VARIABLES

VARIABLE	RANGE
1. Basic machine/equipment	Basic machine/equipment may include: <ul style="list-style-type: none"> 1.1 Mixer 1.2 Blender 1.3 Roaster 1.4 Grinder 1.5 Chopper 1.6 Food processor 1.7 Weighing Scales 1.8 Washing equipment 1.9 Frying equipment 1.10 Oven 1.11 Conveyor 1.12 Freezer 1.13 Cutter 1.14 Molder 1.15 Pressure canner other than retort 1.16 Filling machine (bottle, can, pouch, fill and seal) 1.17 Plastic sealer or impulse sealer 1.18 Vacuum sealer except thermo form
2. Workplace requirements	Workplace requirements may include: <ul style="list-style-type: none"> 2.1 Company policies and procedures 2.2 Standard Operating Procedures 2.3 Production schedules 2.4 Operator's manuals 2.5 OHS procedures 2.6 Supervisor's oral or written instructions 2.7 Standard forms and reports 2.8 Work instructions and procedures
3. Pre-operational checks	Pre-operational checks may: <ul style="list-style-type: none"> 3.1 Checking log books 3.2 Reading manufacturer's instructions 3.3 Observing and monitoring noise levels for correct operation 3.4 Cleaning
4. Manufacturer's specifications	Manufacturer's specifications may include: <ul style="list-style-type: none"> 4.1 Handling requirements 4.2 Operating requirements 4.3 Discharge label 4.4 Reporting 4.5 Testing 4.6 Positioning 4.7 Refilling
5. Personal protective equipment (PPE)	Personal protective equipment (PPE) may include: <ul style="list-style-type: none"> 5.1 Masks 5.2 Safety boots 5.3 Head protection 5.4 Safety glasses 5.6 Gloves 5.7 Apron

VARIABLE	RANGE
6. OHS requirements	Occupational Health and Safety requirements may include: 6.1 Health/medical certificate 6.2 DOLE requirements 6.3 Personal hygiene and good grooming 6.4 Plant sanitation and waste management 6.5 Relevant permits 6.6 FDA requirements 6.7 PPE requirements
7. Records and reports	Records and reports may include: 7.1 Operational details 7.2 Equipment faults 7.3 Materials used
8. Industry guidelines	May include: 8.1 OSH Rule No. 1060 – Premises of Establishments 8.2 OSH Rule No. 1070 – Occupational Health & Environmental Control 8.3 OSH Rule No. 1080 – Personal Protective Equipment & Devices 8.4 OSH Rule No. 1150 – Materials Handling & Storage 8.5 OSH Rule No. 1210 – Electrical Safety 8.6 RA 9003 – Ecological Solid Waste Management Act of 2000 8.7 RA 9275– Clean Water Act of 2004

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Prepared equipment for use 1.2 Conducted pre-operational checks on equipment 1.3 Operated and shut-down equipment 1.4 Cleaned, maintained and stored tools, machine and equipment 1.5 Followed work procedures 1.6 Followed recording and reporting guidelines
<p>2. Methods of Assessment</p>	<p>Competency must be assessed through:</p> <ul style="list-style-type: none"> 2.1 Direct observation with oral questioning 2.2 Demonstration with oral questioning
<p>3. Resource Implications</p>	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 3.1 Specific work area/station 3.2 Equipment and tools for sampling 3.3 Materials relevant to the proposed activity 3.4 Relevant workplace procedures, schedules and records
<p>4. Context of Assessment</p>	<ul style="list-style-type: none"> 4.1 Assessment should occur on the job or in a simulated workplace 4.2 Ability to apply competency over time and on a number of occasions.

UNIT OF COMPETENCY : CLEAN AND SANITIZE EQUIPMENT AND PROCESSING/PACKAGING PREMISES

UNIT CODE : PFB751346

UNIT DESCRIPTOR : This unit covers the skills, knowledge and attitudes required to clean and sanitize processing/ packaging premises and equipment. This does not include cleaning-in-place (CIP). It involves preparation of sanitizing solutions, disinfecting and disinfestation of equipment and processing/packaging premises, storing of equipment and chemicals, completing records, and disposing waste properly.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Clean and sanitize processing/ packaging premises	1.1 <i>Cleaning/ sanitizing supplies and materials, and utilities</i> are prepared according to cleaning and sanitizing requirements and <i>industry guidelines</i> . 1.2 Sanitizing solution is prepared according to workplace requirements and application, and <i>industry guidelines</i> . 1.3 Processing/ packaging premises are cleared in preparation for cleaning according to workplace requirements and <i>industry guidelines</i> . 1.4 Processing/ packaging premises are <i>cleaned and sanitized</i> according to workplace procedures and <i>industry guidelines</i> . 1.5 Checklists are filled-up according to workplace procedures.	1.1 Cleaning supplies and materials 1.2 Methods of preparing sanitizing solutions 1.3 Procedures in cleaning and sanitizing packaging and processing areas 1.4 Cleaning and maintenance checklist 1.6 Communication skills (oral and written) 1.7 OSH Rule No. 1080 – Personal Protective Equipment & Devices 1.8 OSH Rule No. 1090 – Hazardous Materials 1.9 OSH Rule No. 1150 – Materials Handling & Storage 1.10 RA 6969-Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 1.11 RA 9003- Ecological Solid Waste Management Act of 2000	1.1 Prepare cleaning supplies and materials 1.2 Prepare sanitizing solutions 1.3 Clean and sanitize packaging and processing areas 1.4 Fill-up maintenance checklist

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Clean and sanitize equipment	2.1 <i>Cleaning/ sanitizing supplies and materials, and utilities</i> are prepared according to manufacturer's specifications and <i>industry guidelines</i> . 2.2 Mix sanitizing solutions according to manufacturer's specifications and <i>industry guidelines</i> . 2.3 Equipment are <i>cleaned and sanitized</i> according to manufacturer's specifications and <i>industry guidelines</i> .	2.1 Methods of preparing sanitizing solutions 2.2 Procedures in disassembling, cleaning, sanitize and assembling equipment 2.3 Procedure in checking the working condition of equipment 2.4 OSHS 2.5 AO 153 2.5.1 GMP and SSOP 2.6 OSH Rule No. 1080 – Personal Protective Equipment & Devices 2.7 OSH Rule No. 1090 – Hazardous Materials 2.8 OSH Rule No. 1150 – Materials Handling & Storage 2.9 RA 9003-Ecological Solid Waste Management Act of 2000 2.10 RA 9275 – Clean Water Act of 2004	2.1 Prepare sanitizing solutions 2.2 Disassemble, clean, sanitize and assemble equipment 2.3 Fill-up maintenance checklist
3. Perform shut down activities	3.1 Cleaning equipment and chemicals are stored according to workplace procedure. 3.2 Waste from cleaning process is disposed of according to workplace and OHS requirements, and <i>industry guidelines</i> . 3.3 Equipment and processing/ packaging area are restored to operating order according to	3.1 Shut down procedures 3.2 Storing 3.3 7S of Good Housekeeping 3.4 OSH Rule No. 1080 – Personal Protective Equipment & Devices 3.5 OSH Rule No. 1090 – Hazardous Materials 3.6 OSH Rule No. 1150 – Materials Handling & Storage	3.1 Storing cleaning equipment and chemicals 3.2 Disposing waste from cleaning 3.3 Restoring equipment and processing/packaging area 3.4 Conducting record keeping

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>workplace procedures and <i>industry guidelines.</i></p> <p>3.4 Records are completed in line with workplace requirements.</p>	<p>3.7 RA 6969-Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990</p> <p>3.8 RA 9003-Ecological Solid Waste Management Act of 2000</p> <p>3.9 RA 9275 – Clean Water Act of 2004</p>	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Cleaning/sanitation supplies and materials	Cleaning/sanitation supplies and materials may include: <ol style="list-style-type: none"> 1.1 Chemicals (cleaners, sanitizers, etc.) 1.2 Cleaning and scouring pads 1.3 Washcloth 1.4 Brush (floor brush) 1.5 Pail 1.6 Basin 1.7 Dipper 1.8 Hose 1.9 Mop 1.10 Mop wringer 1.11 Squeegee 1.12 pressure washer 1.13 vacuum cleaner 1.14 Garbage bin / Trash bag 1.15 Towel dispenser 1.16 Chlorine paper (for testing effectiveness of sanitation) 1.17 ATP (adenosine triphosphate) quick test
2. Utilities	Utilities may include: <ol style="list-style-type: none"> 2.1 Power 2.2 Water 2.3 Steam 2.4 Compressed air 2.5 Instrumentation air
3. Cleaning and sanitation	Cleaning and sanitation may include but not limited to: <ol style="list-style-type: none"> 3.1 Processing/package premises <ol style="list-style-type: none"> 3.1.1 Cleaning <ol style="list-style-type: none"> 3.1.1.1 Soil: <ul style="list-style-type: none"> • Organic – produced by cooking equipment and deposited on ceilings, walls, exhaust hood, food production equipment, utensils and tableware • Inorganic – airborne (free floating) or bonded dust which adheres to surfaces 3.1.1.2 Pest <ul style="list-style-type: none"> • Sanitation 3.1.1.3 Destruction of pathogens that survive in the cleaning process 3.2 Equipment <ol style="list-style-type: none"> 3.2.1 Cleaning <ol style="list-style-type: none"> 3.2.1.1 Organic <ul style="list-style-type: none"> • Fats/ Lard • Sawdust 3.2.1.2 Inorganic <ul style="list-style-type: none"> • Dust • Mineral oil

VARIABLE	RANGE
	3.3 Sanitation 3.3.1 Destruction of: 3.3.1.1 Bacteria 3.3.1.2 Virus 3.3.1.3 Molds and fungi
4. Industry guidelines	May include: 4.1 OSH Rule No. 1060 – Premises of Establishments 4.2 OSH Rule No. 1070 – Occupational Health & Environmental Control 4.3 OSH Rule No. 1080 – Personal Protective Equipment & Devices 4.4 OSH Rule No. 1090 – Hazardous Materials 4.5 OSH Rule No. 1150 – Materials Handling & Storage 4.6 OSH Rule No. 1210 – Electrical Safety 4.7 RA 6969 – Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 4.8 RA 9003 – Ecological Solid Waste Management Act of 2000 4.9 RA 9275 – Clean Water Act of 2004

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Cleaned/sanitized processing/packaging premises 1.2 Cleaned/sanitized equipment 1.3 Cleaned, sanitized, maintained and stored equipment 1.4 Stored cleaning equipment and chemicals 1.5 Followed recording and reporting guidelines 1.6 Followed work procedures
<p>2. Methods of Assessment</p>	<p>Competency must be assessed through:</p> <ul style="list-style-type: none"> 2.1 Direct observation with oral questioning 2.2 Demonstration with oral questioning
<p>3. Resource Implications</p>	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 3.1 Specific work area/station 3.2 Equipment and tools relevant to cleaning and sanitizing equipment and processing/packaging area Materials relevant to the proposed activity 3.3 Relevant workplace procedures, schedules and records
<p>4. Context of Assessment</p>	<ul style="list-style-type: none"> 4.1 Assessment should occur on the job or in a simulated workplace 4.2 Ability to apply competency over time and on a number of occasions.

UNIT OF COMPETENCY : DEBONE AND FILLET FISH

UNIT CODE : PFB751347

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to prepare tools, equipment, and processing/ packaging area for operation, prepare fish, debone and fillet, clean and store equipment and tools, dispose waste, accomplish report and transferring fish to the next production line.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Prepare tools, equipment and processing and packaging area	1.1 Tools and equipment are cleaned and set to meet operating requirements and according to industry guidelines . 1.2 Tools, equipment and processing and packaging area are sanitized according to workplace procedures and industry guidelines . 1.3 Tools and equipment performance are checked and adjusted as required and industry guidelines .	1.1 Use of equipment and tools 1.2 Performance checking of tools and equipment 1.3 Performance adjustment of tools and equipment 1.4 OSH Rule No. 1080 – Personal Protective Equipment & Devices 1.5 OSH Rule No. 1150 – Materials Handling & Storage 1.6 RA 9275 – Clean Water Act of 2004	1.1 Equipment operation skills 1.2 Cleaning tools and equipment 1.3 Sanitizing tools, equipment and processing/packaging area 1.4 Checking and adjusting tools and equipment
2. Prepare fish for deboning and filleting	2.1 Fish evisceration techniques are applied in accordance to fish cuts and industry guidelines . 2.2 Fishes are washed according to company's specification, GMP requirements, and industry guidelines . 2.3 Fishes are chilled according to company's specification and	2.1 Weighing and grading of fishes 2.2 Evisceration techniques 2.3 Washing of fishes 2.4 Chilling requirements 2.5 Fish cuts 2.6 7S of Good housekeeping 2.7 OSH Rule No. 1080 – Personal Protective Equipment & Devices 2.8 OSH Rule No. 1150 – Materials	2.1 Applying fish evisceration technique 2.2 Washing fishes 2.3 Chilling fishes 2.4 Scaling fishes

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>industry guidelines.</p> <p>2.4 Fishes are scaled according to company specifications and industry guidelines.</p>	<p>Handling & Storage</p> <p>2.9 RA 9003 – Ecological Solid Waste Management Act of 2000</p> <p>2.10 RA 9275 – Clean Water Act of 2004</p>	
3. Debone and fillet fish	<p>3.1 Fishes are deboned in accordance to company's specification and industry guidelines.</p> <p>3.2 Fishes are fillet in accordance to company's specification and industry guidelines.</p> <p>3.3 Deboned/fillet fishes are washed and transferred to next production line according to company's specification, GMP and industry guidelines.</p> <p>3.4 Workplace is maintained according to housekeeping standards and industry guidelines.</p>	<p>3.1 Fish anatomy</p> <p>3.2 Techniques of deboning</p> <p>3.3 Methods of scaling</p> <p>3.4 Techniques of deskinning</p> <p>3.5 Types of Fillet</p> <p>3.6 7S of Good housekeeping</p> <p>3.7 Packing deboned/fillet fishes</p> <p>3.8 PPEs</p> <p>3.9 OSH Rule 1070 – Occupational Health & Environmental Control</p> <p>3.10 OSH Rule No. 1080 – Personal Protective Equipment & Devices</p> <p>3.11 OSH Rule No. 1150 – Materials Handling & Storage</p> <p>3.12 RA 9003 – Ecological Solid Waste Management Act of 2000</p> <p>3.13 RA 9275 – Clean Water Act of 2004</p>	<p>3.1 Deboning fishes</p> <p>3.2 Filleting fishes</p> <p>3.3 Washing deboned/fillet fishes</p> <p>3.4 Maintaining workplace</p>
4. Conduct post operation	<p>4.1 Tools are cleaned and stored based on workplace procedures, operation manuals, and industry guidelines.</p>	<p>4.1 Labelling requirements for retail</p> <p>4.2 Production data of deboned/fillet fishes</p>	<p>4.1 Cleaning tools</p> <p>4.2 Disposing wastes</p> <p>4.3 Accomplishing production data checklist</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>4.2 Wastes are disposed according to <i>industry guidelines</i>.</p> <p>4.3 Production data checklist is accomplished according to enterprise protocol.</p>	<p>4.3 Communication Skills (oral and written)</p> <p>4.4 OSH Rule 1070 – Occupational Health & Environmental Control</p> <p>4.5 OSH Rule No. 1080 – Personal Protective Equipment & Devices</p> <p>4.6 OSH Rule No. 1150 – Materials Handling & Storage</p> <p>4.7 RA 9003 – Ecological Solid Waste Management Act of 2000</p>	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Tools and equipment	Tools may include: 1.1 Tools: 1.1.1 Tweezor 1.1.2 Knives 1.1.3 Rubber hammer 1.1.4 HDPE Chopping board 1.1.5 Colander 1.1.6 Basin 1.1.7 Tray 1.2 Equipment 1.2.1 Digital weighing scale (25kg cap.) 1.2.2 Vacuum sealer 1.2.3 Freezer 1.2.4 Plastic sealer
2. Fishes	Fish includes: 2.1 Dilis 2.2 Danggit 2.3 Bangus 2.4 Tilapia 2.5 Labahita 2.6 Yellow fin 2.7 Cream dory 2.8 Tuna
3. Fish cuts	Fish cuts includes: 3.1 Whole fish 3.2 Butterfly fillet 3.3 Cross-section or steak
4. Washing of fishes	Washing of fishes done before and after evisceration includes: 4.1 Use of ice water 4.2 Use of disinfectants 4.3 Use of salt/sodium chloride water
5. Fillet	Types of Fillet includes: 5.1 Whole fish 5.2 Butterfly fillet 5.3 Cross-section
6. Industry guidelines	May include: 6.1 OSH Rule 1070 – Occupational Health & Environmental Control 6.2 OSH Rule No. 1080 – Personal Protective Equipment & Devices 6.3 OSH Rule No. 1150 – Materials Handling & Storage 6.4 RA 9003-Ecological Solid Waste Management Act of 2000 6.5 RA 9275 – Clean Water Act of 2004

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Prepared tools and processing/packaging area 1.2 Prepared fish for deboning/filleting 1.3 Deboned/filleted fish 1.4 Stored tools and disposed waste 1.5 Accomplished production data
<p>2. Methods of Assessment</p>	<p>Competency must be assessed through:</p> <ul style="list-style-type: none"> 2.1 Direct observation with oral questioning 2.2 Demonstration with oral questioning
<p>3. Resource Implications</p>	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 3.1 Specific work area/station 3.2 Equipment and tools relevant to cleaning and sanitizing equipment and processing/packaging area Materials relevant to the proposed activity 3.3 Relevant workplace procedures, schedules and records
<p>4. Context of Assessment</p>	<ul style="list-style-type: none"> 4.1 Assessment should occur on the job or in a simulated workplace 4.2 Ability to apply competency over time and on a number of occasions.

SECTION 3 TRAINING ARRANGEMENTS

These standards are set to provide technical and vocational education and training (TVET) providers with information and other important requirements to consider when designing training programs for **FOOD PROCESSING NC I**.

They include information on curriculum design; training delivery; trainee entry requirements; tools and equipment; training facilities; and trainer's qualification.

3.1 CURRICULUM DESIGN

TESDA shall provide the training on the development of competency-based curricula to enable training providers to develop their own curricula with the components mentioned below.

Delivery of knowledge requirements for the basic, common and core units of competency specifically in the areas of mathematics, science/technology, communication/language and other academic subjects shall be contextualized. To this end, TVET providers shall develop a Contextual Learning Matrix (CLM) to green technology, issues on health and drugs and cater person with disabilities (PWD's)

Course Title: **FOOD PROCESSING**
NC Level: **NC I**

Nominal Training Duration:

	47 hrs	Basic Competencies
	14 hrs	Common Competencies
	136 hrs	Core Competencies
Total	197 hrs	

Course Description:

This course is designed to provide the learner with knowledge, practical skills and attitude, applicable in performing work activities involve in assisting in quality inspection, dispensing materials, preparing packaging materials and supplies for processing, operating basic equipment, cleaning and sanitizing equipment and processing/packaging premises and deboning and filleting fish. This include classroom learning activities and practical work in actual work site or simulation area.

Upon completion of the course, the learners are expected to demonstrate the above-mentioned competencies to be employed. To obtain this, all units prescribed for this qualification must be achieve.

**BASIC COMPETENCIES
(47 HOURS)**

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
1. Receive and respond to workplace communication	1.1 Follow routine spoken messages	<ul style="list-style-type: none"> • Exercise Conciseness in receiving and clarifying messages/ information/ communication 	<ul style="list-style-type: none"> • Group discussion • Interaction • Reportorial • Modular 	<ul style="list-style-type: none"> • Interviews/ • Questioning • Practical/ • Performance Test • Observation 	4 Hours
	1.1 Perform workplace duties following written notices	<ul style="list-style-type: none"> • Practice Accuracy in following written/ oral instruction/ information • Practice written and oral communication skills • Case Study in handling written communication • Practice relaying/ disseminating messages/ information • Analyze different messages 	<ul style="list-style-type: none"> • Lecture/ • Discussion • Demonstration • Case Study 	<ul style="list-style-type: none"> • Written • Practical • Written • Demonstration 	4 Hours
2. Work with others	2.1 Develop effective workplace relationships	<ul style="list-style-type: none"> • Read job description and organizations policies relevant to work role • Read personnel code of conduct and discipline • Role play on cooperation and good relationship • Study table of organization and identify team members • Role play on team work. • Role play on receiving feedback from supervisor • Role play on providing feedback. • Listen to lecture on Valuing and exemplifying respect and empathy in the workplace 	<ul style="list-style-type: none"> • Individual Work • Discussion • Role Play • Lecture 	<ul style="list-style-type: none"> • Role Play • Structured activity • Written Test 	2 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	2.2 Contribute to work group activities	<ul style="list-style-type: none"> • Discussion on creative collaboration, social perceptiveness and problem sensitivity • Role play on creative collaboration, social perceptiveness and problem sensitivity. • Participate in a goal setting activity • Participate in planning and implementation of a group activity. • Participate in evaluation of the group activity 	<ul style="list-style-type: none"> • Lecture/ Discussion • Role Play • Group Work 	<ul style="list-style-type: none"> • Role Play • Structured activity • Written Test 	1 hour
3. Solve/address routine problems	3.1 Identify the problem	<ul style="list-style-type: none"> • Show mastery of the current industry hardware and software products and services <ul style="list-style-type: none"> 3.1.1.1 Show mastery of knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations 3.1.1.2 Relevant equipment and operational processes 3.1.1.3 Enterprise goals, targets and measures 3.1.1.4 Enterprise quality OHS and environmental requirement 3.1.1.5 Enterprise information systems and data collation 3.1.1.6 Industry codes and standards • Use range of formal problem-solving techniques (e.g., planning, attention, simultaneous and successive processing of information) 	<ul style="list-style-type: none"> • Interactive Lecture • Appreciative Inquiry • Demonstration 	<ul style="list-style-type: none"> • Case Formulation • Life Narrative Inquiry (Interview) • Standardized test 	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	3.2 Assess fundamental causes of problem	<ul style="list-style-type: none"> • Identify and clarify the nature of the problem • Show mastery of the current industry hardware and software products and services <ul style="list-style-type: none"> 3.2.1.1 Show mastery of knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations 3.2.1.2 Relevant equipment and operational processes 3.2.1.3 Enterprise goals, targets and measures 3.2.1.4 Enterprise quality OHS and environmental requirement 3.2.1.5 Enterprise information systems and data collation 3.2.1.6 Industry codes and standards • Use range of formal problem-solving techniques (e.g., planning, attention, simultaneous and successive processing of information) • Identify and clarify the nature of the problem 	<ul style="list-style-type: none"> • Group discussion • Lecture • Demonstration • Role play 	<ul style="list-style-type: none"> • Case Formulation • Life Narrative Inquiry (Interview) • Standardized test 	1 hour
	3.3 Determine corrective action	<ul style="list-style-type: none"> • Show mastery of the current industry hardware and software products and services <ul style="list-style-type: none"> 3.3.1.1 Show mastery of knowledge and understanding of the process, normal operating parameters, and 	<ul style="list-style-type: none"> • Group discussion • Lecture • Demonstration • Role play 	<ul style="list-style-type: none"> • Case Formulation • Life Narrative Inquiry (Interview) • Standardized 	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<p>product quality to recognize non-standard situations</p> <p>3.3.1.2 Relevant equipment and operational processes</p> <p>3.3.1.3 Enterprise goals, targets and measures</p> <p>3.3.1.4 Enterprise quality OHS and environmental requirement</p> <p>3.3.1.5 Enterprise information systems and data collation</p> <p>3.3.1.6 Industry codes and standards</p> <ul style="list-style-type: none"> • Use range of formal problem-solving techniques (e.g., planning, attention, simultaneous and successive processing of information) • Identify and clarify the nature of the problem 		test	
	3.4 Communicate action plans and recommendations to routine problems	<ul style="list-style-type: none"> • Show mastery of the current industry hardware and software products and services <ul style="list-style-type: none"> 3.4.1.1 Show mastery of knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations 3.4.1.2 Relevant equipment and operational processes 3.4.1.3 Enterprise goals, targets and measures 3.4.1.4 Enterprise quality OHS and environmental requirement 	<ul style="list-style-type: none"> • Group discussion • Lecture • Demonstration • Role playing 	<ul style="list-style-type: none"> • Case Formulation • Life Narrative Inquiry (Interview) • Standardized test 	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		3.4.1.5 Enterprise information systems and data collation 3.4.1.6 Industry codes and standards <ul style="list-style-type: none"> • Use range of formal problem-solving techniques (e.g., planning, attention, simultaneous and successive processing of information) • Identify and clarify the nature of the problem 			
4. Enhance Self-Management Skills	4.1 Set personal and career goals	<ul style="list-style-type: none"> • Define and set personal goals and career goals • Describe the SMART Model for goal setting • Create personal and career goals using SMART Model for goal setting • Explain and apply the principles of goal setting according to Locke & Latham 	<ul style="list-style-type: none"> • Discussion • Making of personal and career goals by students • Brainstorming 	<ul style="list-style-type: none"> • Demonstration or simulation with oral questioning • Case problems involving workplace diversity issues 	1 hour
	4.2 Recognize emotions	<ul style="list-style-type: none"> • Identify common positive and negative emotions manifested in the workplace • Distinguish professional and non-professional behaviors in the workplace • Recognize triggers and implications of positive and negative emotions in the workplace • Respond with appropriate emotions and identify possible consequences of inappropriate emotional responses in a social and work-related context 	<ul style="list-style-type: none"> • Discussion • Interactive Lecture • Brainstorming 	<ul style="list-style-type: none"> • Demonstration or simulation with oral questioning • Case problems involving workplace diversity issues 	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	4.3 Describe oneself as a learner	<ul style="list-style-type: none"> • Review Kolb’s Theory of Learning Styles • Describe VAK Learning Style Model (Visual, Auditory, Kinesthetic) • Cite learning strategies appropriate to specific tasks and describe work practices that assist learning • Identify factors and strategies that assist learning • Apply learning styles to positively influence school/work performance • Use appropriate learning strategies to improve study habits and learning 	<ul style="list-style-type: none"> • Discussion • Interactive Lecture • Brainstorming • Simulation 	<ul style="list-style-type: none"> • Demonstration or simulation with oral questioning • Case problems involving workplace diversity issues 	1 hour
5. Support Innovation	5.1 Identify the need for innovation in one’s area of work	<ul style="list-style-type: none"> • Show mastery of the clear-cut definition of innovation and its characteristics • Identify the need for innovation in one’s work area • Identify work procedures needing change • Contribute to brainstorming sessions with co-workers on identifying tasks needing change 	<ul style="list-style-type: none"> • Interactive Lecture • Appreciative Inquiry • Demonstration • Group work 	<ul style="list-style-type: none"> • Psychological and behavioral Interviews • Performance Evaluation • Life Narrative Inquiry • Review of portfolios of evidence and third-party workplace reports of on-the-job performance. • Standardized assessment of character strengths and virtues applied 	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	5.2 Recognize innovative and creative ideas	<ul style="list-style-type: none"> • Identify resources needed for change and potential obstacles as well • Show positive attitudes and behaviors in accepting and in needing change in one's work area • Delineate differences between creativity and innovation 	<ul style="list-style-type: none"> • Interactive Lecture • Appreciative Inquiry • Demonstration • Group work 	<ul style="list-style-type: none"> • Psychological and behavioral Interviews • Performance Evaluation • Life Narrative Inquiry • Review of portfolios of evidence and third-party workplace reports of on-the-job performance. • Standardized assessment of character strengths and virtues applied 	1 hour
	5.3 Support individuals' access to flexible and innovative ways of working	<ul style="list-style-type: none"> • Identify different roles of employees/workers in the improvement of practices in the organization • Identify practices for flexible and innovative ways of working • Share information with co-workers • Detect potential problems in implementing flexible ways of working 	<ul style="list-style-type: none"> • Interactive Lecture • Appreciative Inquiry • Demonstration • Group work 	<ul style="list-style-type: none"> • Psychological and behavioral Interviews • Performance Evaluation • Life Narrative Inquiry • Review of portfolios of evidence and third-party workplace reports of on- 	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
				the-job performance. <ul style="list-style-type: none"> • Standardized assessment of character strengths and virtues applied • Review of portfolios of evidence and third-party workplace reports of on-the-job performance. • Standardized assessment of character strengths and virtues applied 	
6. Access and maintain information	6.1 Identify and gather needed information	<ul style="list-style-type: none"> • Lecture and discussion on: <ul style="list-style-type: none"> ○ Policies, procedures and guidelines relating to information handling in the public and private sector, including confidentiality, privacy, security, freedom of information ○ Data collection and management procedures ○ Public/private sector standards • Identify sources to produce required information 	<ul style="list-style-type: none"> • Lecture • Demonstration • Practical exercises 	<ul style="list-style-type: none"> • Oral evaluation • Written Test • Observation 	3 Hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> • Perform exercises on information gathering 			
	6.2 Search for information on the internet or an intranet	<ul style="list-style-type: none"> • Lecture and discussion on: <ul style="list-style-type: none"> ○ Techniques in finding useful information ○ Search engines for information • Find and select appropriate information • Perform information searching on the internet using different search engines 	<ul style="list-style-type: none"> • Group discussion • Lecture • Demonstration • Practical exercises 	<ul style="list-style-type: none"> • Oral evaluation • Written Test • Observation • Presentation 	2 Hours
	6.3 Examine information	<ul style="list-style-type: none"> • Lecture and discussion on: <ul style="list-style-type: none"> ○ Data evaluation procedures ○ Cultural aspects of information and meaning ○ Sources of public sector work-related information • Evaluation of searched information 	<ul style="list-style-type: none"> • Group discussion • Lecture • Demonstration • Practical exercises 	<ul style="list-style-type: none"> • Oral evaluation • Written Test • Observation • Presentation 	2 Hours
	6.4 Secure information	<ul style="list-style-type: none"> • Lecture and discussion on: <ul style="list-style-type: none"> ○ Basic file-handling techniques ○ Techniques in handling, organizing and saving files ○ Electronic and manual filing systems • Performance of basic file-handling techniques • Application of electronic and manual filing systems 	<ul style="list-style-type: none"> • Group discussion • Lecture • Demonstration • Role Play • Practical exercises 	<ul style="list-style-type: none"> • Oral evaluation • Written Test • Observation • Presentation 	3 Hours
	6.5 Manage information	<ul style="list-style-type: none"> • Lecture and discussion on: <ul style="list-style-type: none"> ○ Organizational information handling and storage procedures ○ Databases and data storage systems 	<ul style="list-style-type: none"> • Group discussion • Lecture • Demonstration • Practical exercises 	<ul style="list-style-type: none"> • Oral evaluation • Written Test • Observation • Presentation 	2 Hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> Managing databases and data storage systems 			
7. Follow Occupational Safety And Health Policies and Procedures	7.1 Identify relevant occupational safety and health policies and procedures	<ul style="list-style-type: none"> Discussion of Risks and Hazards Risk and Hazard Identification 	<ul style="list-style-type: none"> Lecture Group Discussion 	<ul style="list-style-type: none"> Written Exam Demonstration Observation Interviews / Questioning 	2 hours
	7.2 Perform relevant occupational safety and health procedures	<ul style="list-style-type: none"> Demonstration of proper use of Personal Protective Equipment and Materials Handling Practice Emergency Plan 	<ul style="list-style-type: none"> Lecture Group Discussion 	<ul style="list-style-type: none"> Written Exam Demonstration Observation Interviews / Questioning 	2 hours
	7.3 Comply with relevant occupational safety and health policies and standards	<ul style="list-style-type: none"> Discussion on Personal Hygiene and Preventive Control Measures Practice 5S and waste segregation 	<ul style="list-style-type: none"> Lecture Group Discussion 	<ul style="list-style-type: none"> Written Exam Demonstration Observation Interviews / Questioning 	4 hours
8. Apply Environmental Work Standards	8.1 Identify environmental work hazards	<ul style="list-style-type: none"> Discussions in <ul style="list-style-type: none"> Reduction in greenhouse gas emissions, Increase the share of renewables of gross final energy consumption, Long-term reduction of energy consumption, Release of materials into the environment should, in the long run, not exceed the adaptability of the eco-system, 	<ul style="list-style-type: none"> Lecture Group Discussion 	<ul style="list-style-type: none"> Written Exam Demonstration Observation Interviews / Questioning 	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> ○ Dangers and unjustifiable risks to human health ○ Energy and natural resource consumption and the provision of transport services 			
	8.2 Follow environmental work procedures	<ul style="list-style-type: none"> ● Discussions Protection against <ul style="list-style-type: none"> - Human Dangers - Overconsumption of Resources - Destruction of Ecosystems - Habitat Destructions - Extinction of Wildlife - Pollutions - Water Degradation 	<ul style="list-style-type: none"> ● Lecture ● Group Discussion ● Demonstration 	<ul style="list-style-type: none"> ● Written Exam ● Demonstration ● Observation ● Interviews / Questioning 	1 hour
	8.3 Comply with environmental work requirements	<ul style="list-style-type: none"> ● Discussions Environmental Regulations and its requirements relevant to the industry and work activities ● Demonstration and Practice Environmental Compliance 	<ul style="list-style-type: none"> ● Lecture ● Group Discussion ● Demonstration 	<ul style="list-style-type: none"> ● Written Exam ● Demonstration ● Observation ● Interviews / Questioning 	1 hour
9. Adopt Entrepreneurial Mindset in the Workplace	9.1 Determine entrepreneurial mindset	<ul style="list-style-type: none"> ● Discussion on Entrepreneurial Mindset ● Games to develop entrepreneurial mind set 	<ul style="list-style-type: none"> ● Lecture discussion ● Games 	<ul style="list-style-type: none"> ● Written Test ● Role play 	2 hours
	9.2 Identify entrepreneurial practices	<ul style="list-style-type: none"> ● Case study- quality assurance practices ● Discussion on cost effective measures ● Discussion on Workplace quality Policy 	<ul style="list-style-type: none"> ● Case study ● Lecture discussion 	<ul style="list-style-type: none"> ● Written Test ● Case Study 	1 hour

COMMON COMPETENCIES
14 HRS

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
1. Apply Food Safety and Sanitation	1.1 Wear personal protective equipment 1.2 Observe personal hygiene and good grooming 1.3 Implement food safety practices 1.4 Render safety measures and first aid procedures 1.5 Implement housekeeping activities	<ul style="list-style-type: none"> • Knowledge, Theory, Practices and Systems Operations • Safety Practices • Good grooming and personal hygiene • Proper waste disposal • Environmental protection and concerns • Food safety principles and practices • Housekeeping / 5's • Codes and Regulations • Good Food Manufacturing Practices • Materials, Tools, Equipment: Uses, Specifications and Maintenance • Parts and functions of personal protective equipment • First Aid Kit • Sanitizing equipment 	<ul style="list-style-type: none"> • Lecture • Group Discussion • Role Play • Self-paced 	<ul style="list-style-type: none"> • Demonstration • Observation • Interviews / questioning 	4 hours
2. Use Standard Measuring Devices / Instruments	2.1 Identify standard measuring devices and instruments 2.2 Review the procedures in using	<ul style="list-style-type: none"> • Knowledge, Theory, Practices and Systems Operations • Safe handling of measuring devices and instruments • Specifications and functions of measuring devices and instruments 	<ul style="list-style-type: none"> • Lecture • Group Discussion • Role Play • Self-paced 	<ul style="list-style-type: none"> • Demonstration • Observation • Interviews / questioning 	4 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	standard measuring devices and instruments. 2.3 Follow procedures in using measuring devices and instruments	<ul style="list-style-type: none"> • Defects and breakages of measuring devices and instruments • Procedures in sanitizing and calibrating and stowing equipment and instruments 			
3. Use Food Processing Tools, Equipment and Utensils	3.1 Perform pre-operation activities 3.2 Operate food processing equipment 3.3 Perform post-operation activities	<ul style="list-style-type: none"> • Communication • Written and oral communication • Interpreting manufacturer's specifications • Following manufacturer's manual • Materials, Tools and Equipment: uses, Specifications and Maintenance • Sanitizing agents: Uses and Specification • Proper cleaning and stowing of tools and equipment/ instruments • Equipment/ machine wear and tear process • Minor preventive maintenance 	<ul style="list-style-type: none"> • Lecture • Group Discussion • Role Play • Self-paced 	<ul style="list-style-type: none"> • Demonstration • Observation • Interviews / questioning 	4 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
4. Implement Good Manufacturing Practice Procedure	4.1 Identify requirements of GMP related to own work 4.2 Observe personal hygiene and conduct to meet GMP requirements 4.3 Implement GMP requirements when carrying out work activities 4.4 Participate in improving GMP 4.5 Participate in validation processes 4.6 Complete workplace documentation to support GMP	<ul style="list-style-type: none"> • Knowledge, Theory, Practices and Techniques • GMP Requirements • GMP Codes of practice, policies and procedures • GMP Role of internal and external auditors • Contamination events and performance improvement processes procedures • PPE • Personal clothing and footwear requirements at work areas • Use of personal clothing, storage and disposal requirements • Micro biological, physical and chemical contaminants • Personal hygiene • Basic concepts of quality assurance 	<ul style="list-style-type: none"> • Lecture • Group Discussion • Role Play • Self-paced 	<ul style="list-style-type: none"> • Demonstration • Observation • Interviews / questioning 	2 hours

CORE COMPETENCIES
136 HRS

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
1. Assist in Quality Inspection	1.1. Conduct preparatory activities	1.1.1 Discuss and explain the following: <ul style="list-style-type: none"> • Sampling requirements, methods and recording • Good Laboratory Practices • Uses, function and operation of tools and equipment • Preparation of different tools and materials • Calibration of tools and equipment • Defective tools and equipment • AO 153 (cGMP) • Halal Principles • Food Safety Act of 2013 • Accomplishment of checklist report • Interpretation and following instructions • OSH Rule No. 1060 – Premises of Establishments • OSH Rule No. 1080 – Personal Protective Equipment & Devices 	<ul style="list-style-type: none"> • Lecture • Discussion • Self-paced • Demonstration • Video showing 	<ul style="list-style-type: none"> • Demonstration • Oral Questioning • Written exam 	6 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> • OSH Rule No. 1150 – Materials Handling & Storage • RA 9275 – Clean Water Act of 2004 1.1.2 Conduct preparatory activities			
	1.2. Check raw materials, in-process products and finished products	1.2.1 Discuss and explain the following: <ul style="list-style-type: none"> • Raw materials and product <ul style="list-style-type: none"> ○ Receiving and handling ○ Disposal of defective raw materials and product ○ Product characteristics • Sampling procedures • Sampling plan • Sampling information • Preparing and handling of samples • Accomplishment of checklist • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage • RA 9003 – Ecological Solid Waste Management Act of 2000 	<ul style="list-style-type: none"> • Lecture • Discussion • Self-paced • Demonstration • Video showing 	<ul style="list-style-type: none"> • Demonstration • Oral Questioning • Written exam 	4 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	1. 3. Conduct post-operation activities	1.2.2 Check raw materials, in-process products and finished products 1.3.1 Discuss and explain the following: <ul style="list-style-type: none"> • Different wastes • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage • RA 9003-Ecological Solid Waste Management Act of 2000 1.3.2 Conduct post-operation activities	<ul style="list-style-type: none"> • Lecture • Discussion • Demonstration • Video showing 	<ul style="list-style-type: none"> • Demonstration with oral questioning 	3 hours
2. Dispense Materials	2.1. Perform preparatory activities	2.1.1 Discuss and explain the following: <ul style="list-style-type: none"> • Personal protective equipment (PPE): <ul style="list-style-type: none"> ○ Apron/ laboratory gown ○ Face masks ○ Gloves ○ Rubber boots/safety shoes ○ Head gears such as caps, hair nets, ear plug, sweat band • OSHS requirements: <ul style="list-style-type: none"> ○ Health/ medical certificate ○ DOLE requirements 	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Video showing 	<ul style="list-style-type: none"> • Demonstration • Written exam • Oral questioning 	4 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> ○ Personal hygiene and good grooming ○ AO 153 ● OSH Rule No. 1080 – Personal Protective Equipment & Devices ● OSH Rule No. 1150 – Materials Handling & Storage <p>2.1.2 Perform preparatory activities</p>			
	2.2. Conduct dispensing activities	<p>2.2.1 Discuss and explain the following:</p> <ul style="list-style-type: none"> ● Labelling Procedures ● Use of equipment ● Monitoring and reporting procedures ● 7S of Good Housekeeping ● AO 153 ● OSH Rule No. 1080 – Personal Protective Equipment & Devices ● OSH Rule No. 1150 – Materials Handling & Storage <p>2.2.2 Conduct dispensing activities</p>	<ul style="list-style-type: none"> ● Discussion ● Lecture ● Demonstration ● Video showing 	<ul style="list-style-type: none"> ● Demonstration ● Written exam ● Oral questioning 	5 hours
	2.3. Complete the dispensing process	<p>2.3.1 Discuss and explain the following:</p> <ul style="list-style-type: none"> ● Company's Dispensing procedures / Standard Operating Procedures 	<ul style="list-style-type: none"> ● Discussion ● Lecture ● Demonstration ● Video showing 	<ul style="list-style-type: none"> ● Demonstration ● Oral questioning 	4 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> • Standard Operating Procedures on preparing records/ documentation • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage • RA 9003 – Ecological Solid Waste Management Act of 2000 <p>2.3.2 Complete the dispensing process</p>			
	2.4. Load and unload raw materials, products and supplies	<p>2.4.1 Discuss and explain the following:</p> <ul style="list-style-type: none"> • Occupational Health and Safety regulatory and legislative requirements <ul style="list-style-type: none"> ○ Dangerous or hazardous raw materials ○ Good Manufacturing Practices (GMP) • Raw materials, products and/or supplies • Special handling <ul style="list-style-type: none"> ○ FIFO/ FEFO ○ Unpacking ○ Documentation • Identification of hazards and risks <ul style="list-style-type: none"> ○ physical 	<ul style="list-style-type: none"> • Discussion • Demonstration • Video showing 	<ul style="list-style-type: none"> • Demonstration • Oral questioning 	5 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> ○ biological ○ chemical ● cGMP ● HACCP ● Piling of raw materials ● Production sequence ● OSH Rule No. 1080 – Personal Protective Equipment & Devices ● OSH Rule No. 1150 – Materials Handling & Storage <p>2.4.2 Load and unload raw materials, products and supplies</p>			
3. Prepare Packaging Materials and Supplies for Processing	3.1. Acquire packaging materials and supplies for processing	<p>3.1.1 Discuss and explain the following:</p> <ul style="list-style-type: none"> ● Principles and procedures for preparing raw materials ● Proper handling of raw materials ● Identification and proper use of cleaning/washing equipment, implements and utilities ● Proper cleaning and/or washing procedure ● Awareness of Codes or Regulations such as HACCP and GMP ● OSH Rule No. 1080 – Personal Protective 	<ul style="list-style-type: none"> ● Discussion ● Lecture ● Demonstration ● Video showing 	<ul style="list-style-type: none"> ● Demonstration ● Written exam 	4 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		Equipment & Devices <ul style="list-style-type: none"> • OSH Rule No. 1150 – Materials Handling & Storage • Environment and pollution conscious • RA 9003-Ecological Solid Waste Management Act of 2000 3.1.2 Acquire packaging materials and supplies for processing			
	3.2. Prepare packaging materials	3.2.1 Discuss and explain the following: <ul style="list-style-type: none"> • Food safety principles and practices • Proper cleaning and/or washing procedure • Awareness of Codes or Regulations such as HACCP and GMP • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage • Environmental protection and concerns • RA 9275– Clean Water Act of 2004 	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Video showing 	<ul style="list-style-type: none"> • Demonstration • Oral questioning 	5 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> • RA 9003-Ecological Solid Waste Management Act of 2000 3.2.2 Prepare packaging materials			
	3.3. Complete preparation of packaging materials	3.3.1 Discuss and explain the following: <ul style="list-style-type: none"> • Recording and reporting procedures • Proper cleaning and/or washing procedure • Food safety principles and practices • Proper waste disposal • Awareness of Codes or Regulations such as HACCP and GMP • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage • Environmental protection and concerns • RA 9275– Clean Water Act of 2004 • RA 9003-Ecological Solid Waste Management Act of 2000 3.3.2 Complete preparation of packaging materials	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Video showing 	<ul style="list-style-type: none"> • Demonstration • Oral questioning 	4 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
4. Operate Basic Equipment	4.1. Prepare equipment for use	4.1.1 Discuss and explain the following: <ul style="list-style-type: none"> • Types, characteristics and functions of basic equipment • Equipment operation and shut-down • Pre-operational checks and procedures • Routine maintenance procedures • Cleaning and sanitation procedures for work area and equipment • Security and storage of equipment and materials • Lock out and tag out procedures • Safe workplace procedures • Emergency procedures • Environmental and waste disposal procedures • Reporting and documentation requirements and processes • Relevant legislative provisions including OHS requirements • Awareness of Codes or Regulations such as 	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Video showing 	<ul style="list-style-type: none"> • Demonstration • Oral questioning • Written exam 	15 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		HACCP and GMP <ul style="list-style-type: none"> • OSH Rule No. 1070 – Occupational Health & Environmental Control • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage 4.1.2 Prepare equipment for use			
	4.2. Operate equipment	4.2.1 Discuss and explain the following: <ul style="list-style-type: none"> • Personal protective equipment • Calibration and adjustment of basic food processing equipment • Equipment operation • Reporting of defective food processing equipment • Identification of out of specification product • OSH Rule No. 1070 – Occupational Health & Environmental Control • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage 	<ul style="list-style-type: none"> • Lecture • Demonstration • Video showing 	<ul style="list-style-type: none"> • Demonstration • Oral questioning • Written 	8 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> • OSH Rule No. 1210 – Electrical Safety 			
	4.3. Maintain equipment and resources	4.2.2 Operate equipment 4.3.1 Discuss and explain the following: <ul style="list-style-type: none"> • Procedure in shutting down machine/ equipment • Cleaning machine/ equipment in accordance with cGMP • Reporting of defective machine/ equipment • OSH Rule No. 1070 – Occupational Health & Environmental Control • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage • RA 9003-Ecological Solid Waste Management Act of 2000 • RA 9275– Clean Water Act of 2004 4.3.2 Maintain equipment and resources	<ul style="list-style-type: none"> • Lecture • Demonstration • Video showing • Discussion 	<ul style="list-style-type: none"> • Demonstration • Oral questioning • Written 	5 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
5. Clean and Sanitize Equipment and Processing/ Packaging Premises	5.1. Clean and sanitize processing/ packaging premises	5.1.1 Discuss and explain the following: <ul style="list-style-type: none"> • Cleaning supplies and materials • Methods of preparing sanitizing solutions • Procedures in cleaning and sanitizing packaging and processing areas • Cleaning and maintenance checklist • Communication skills (oral and written) • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1090 – Hazardous Materials • OSH Rule No. 1150 – Materials Handling & Storage • RA 6969-Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 • RA 9003-Ecological Solid Waste Management Act of 2000 5.1.2 Clean and sanitize processing/ packaging premises	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Video showing 	<ul style="list-style-type: none"> • Oral questioning • Demonstration 	8 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	5.2. Clean and sanitize equipment	5.2.1 Discuss and explain the following: <ul style="list-style-type: none"> • Methods of preparing sanitizing solutions • Procedures in disassembling, cleaning, sanitize and assembling equipment • Procedure in checking the working condition of equipment • OSHS • AO 153 <ul style="list-style-type: none"> ○ GMP and SSOP • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1090 – Hazardous Materials • OSH Rule No. 1150 – Materials Handling & Storage • RA 9003-Ecological Solid Waste Management Act of 2000 • RA 9275 – Clean Water Act of 2004 5.2.2 Clean and sanitize equipment	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Video showing 	<ul style="list-style-type: none"> • Oral questioning • Demonstration 	8 hours
	5.3. Perform shut down activities	5.3.1 Discuss and explain the following: <ul style="list-style-type: none"> • Shut down procedures • Storing 	<ul style="list-style-type: none"> • Discussion • Demonstration • Video showing 	<ul style="list-style-type: none"> • Oral questioning • Demonstration 	7 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> • 7S of Good Housekeeping • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1090 – Hazardous Materials • OSH Rule No. 1150 – Materials Handling & Storage • RA 6969-Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 • RA 9003-Ecological Solid Waste Management Act of 2000 • RA 9275 – Clean Water Act of 2004 			
6. Debone and Fillet Fish	6.1. Prepare tools, equipment and processing/ packaging area for operation	5.3.2 Perform shut down activities 6.1.1 Discuss and explain the following: <ul style="list-style-type: none"> • Use of equipment and tools • Performance checking of tools and equipment • Performance adjustment of tools and equipment • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – 	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Video showing 	<ul style="list-style-type: none"> • Oral questioning • Demonstration • Written exam 	6 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		Materials Handling & Storage <ul style="list-style-type: none"> • RA 9275 – Clean Water Act of 2004 6.1.2 Prepare tools, equipment and processing/ packaging area for operation			
	6.2. Prepare fish for deboning/ filleting	6.2.1 Discuss and explain the following: <ul style="list-style-type: none"> • Weighing and grading of fishes • Evisceration techniques • Washing of fishes • Chilling requirements • Fish cuts • 7S of Good housekeeping • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage • RA 9003 – Ecological Solid Waste Management Act of 2000 • RA 9275 – Clean Water Act of 2004 6.2.2 Prepare fish for deboning/ filleting	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Video showing 	<ul style="list-style-type: none"> • Oral questioning • Demonstration • Written exam 	11 hours
	6.3. Debone and fillet fish	6.3.1 Discuss and explain the following: <ul style="list-style-type: none"> • Fish anatomy 	<ul style="list-style-type: none"> • Oral questioning • Demonstration • Written exam 	<ul style="list-style-type: none"> • Oral questioning • Demonstration 	17 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		<ul style="list-style-type: none"> • Techniques of deboning • Methods of scaling • Techniques of deskinning • Types of Fillet • 7S of Good housekeeping • Packing deboned/fillet fishes • PPEs • OSH Rule 1070 – Occupational Health & Environmental Control • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage • RA 9003 – Ecological Solid Waste Management Act of 2000 • RA 9275 – Clean Water Act of 2004 			
	6.4. Conduct post operation	6.3.2 Debone and fillet fish 6.4.1 Discuss and explain the following: <ul style="list-style-type: none"> • Labelling requirements for retail • Production data of deboned/fillet fishes • Communication Skills (oral and written) • OSH Rule 1070 – 	<ul style="list-style-type: none"> • Oral questioning • Demonstration 	<ul style="list-style-type: none"> • Oral questioning • Demonstration 	7 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		Occupational Health & Environmental Control <ul style="list-style-type: none"> • OSH Rule No. 1080 – Personal Protective Equipment & Devices • OSH Rule No. 1150 – Materials Handling & Storage • RA 9003 – Ecological Solid Waste Management Act of 2000 6.4.2 Conduct post operation			

3.2 TRAINING DELIVERY

The delivery of training shall adhere to the design of the curriculum. Delivery shall be guided by the principles of competency-based TVET.

- a. Course design is based on competency standards set by the industry or recognized industry sector; (Learning system is driven by competencies written to industry standards)
- b. Training delivery is learner-centered and should accommodate individualized and self-paced learning strategies;
- c. Training can be done on an actual workplace setting, simulation of a workplace and/or through adoption of modern technology.
- d. Assessment is based in the collection of evidence of the performance of work to the industry required standards;
- e. Assessment of competency takes the trainee's knowledge and attitude into account but requires evidence of actual performance of the competency as the primary source of evidence.
- f. Training program allows for recognition of prior learning (RPL) or current competencies;
- g. Training completion is based on satisfactory performance of all specified competencies.

The competency-based TVET system recognizes various types of delivery modes, both on-and off-the-job as long as the learning is driven by the competency standards specified by the industry. The following training modalities and their variations/components may be adopted singly or in combination with other modalities when designing and delivering training programs:

School/Institution- Based:

- Dual Training System (DTS)/Dualized Training Program (DTP) which contain both in-school and in-industry training or fieldwork components.
- Supervised Industry Training (SIT) or on-the-job training (OJT) is an approach in training designed to enhance the knowledge and skills of the trainee through actual experience in the workplace to acquire specific competencies as prescribed in the training regulations. It is imperative that the deployment of trainees in the workplace is adhered to training programs agreed by the institution and enterprise and status and progress of trainees are closely monitored by the training institutions to prevent opportunity for work exploitation.
- Project-based instruction is an authentic instructional model or strategy in which students plan, implement and evaluate projects that have real world applications.

Enterprise-Based:

Enterprise-based training may also be taken to mean a school or training center with one or more partner enterprise or an enterprise or group of enterprises setting up a common training facility or partnering with a school or training center.

- **Enterprise-based Training** - where training is implemented within the company in accordance with the requirements of the specific company.
- **Formal Apprenticeship** – Training within employment involving a contract between an apprentice and an enterprise on an approved apprenticeable occupation.
- **Informal Apprenticeship** - is based on a training (and working) agreement between an apprentice and a master craftsman wherein the agreement may be written or oral and the master craftsman commits to training the apprentice in all the skills relevant to his or her trade over a significant period of time, usually between one and four years, while the apprentice commits to contributing productively to the work of the business. Training is integrated into the production process and apprentices learn by working alongside the experienced craftsman.

Community-Based –refers to a short program conducted or coordinated by NGOs, LGUs, training centers and other TVET providers which are intended to address the specific needs of a community. Such programs are usually conducted in informal settings such as barangay hall, basketball courts and other available venues in a community.

3.3 TRAINEE ENTRY REQUIREMENTS

Trainees or students wishing to enroll in this course should possess the following requirements:

- Able to read and write;
- Able to communicate, both orally and in writing; and
- Able to perform simple computations

3.4 TOOLS AND EQUIPMENT Food Processing NC I

Recommended list of tools, equipment and materials for the training of 25 trainees for Food Processing NC I.

Up-to-date tools, materials, and equipment of equivalent functions can be used as alternatives.

List of Tools and Equipment

FULL QUALIFICATION

TOOLS	
QTY	DESCRIPTION
	Sampling tools and containers
5 sets	knives
5 sets	Measuring cups (solid and liquid)
5 pcs.	sharpening rod
5 pcs.	chopping board
5 pcs	sampling borer (buriki)
25 pcs.	forceps
5 pcs.	thermometer
5 pcs.	bucket
25 pcs.	Forceps
5 pcs	Thermometer
10 pcs	Beaker
10 pcs	Sieve or strainer
10 pcs	Graduated cylinder
5 sets	Sets of standard weights
1 pc	Refractometer (with work instructions)
1 pc	pH meter (with work instructions)
25 units	Tweezor
5 units	Rubber hammer
10 units	HDPE Chopping board
10 units	Colander
10 units	Basin
	Containers
25 pcs	Trays
100 pcs	Canister (varied sizes)
	Glasswares
10 pcs	Pipettes (tools)
10 pcs	Graduated cylinders (liquid
10 pcs	Flasks
10 pcs	Beaker

Note: *Access to and use of equipment/facilities can be provided through cooperative arrangements or MOA with other partner-companies/institutions.

EQUIPMENT	
QTY	DESCRIPTION
	Inspection equipment
5 pcs.	Weighing scales (5K)
5 pcs.	Weighing scales (1K)
1 set	Sets of weights
2 pcs.	pH meter
2 pcs.	Refractometer
5 pcs.	Hydrometer
1 unit	Belt conveyor and roller sorter
5 pcs.	Screens /sieve
1 unit	Image processing
	Furniture/Fixture
3 units	Stainless steel tables / Receiving table (4ft x 2ft)
1 unit	Mixer
1 unit	Blender
1 unit	Roaster
1 unit	Grinder
1 unit	Chopper
1 unit	Food processor
1 unit	Washing equipment
1 unit	Frying equipment
1 unit	Oven
1 unit	Conveyor
1 unit	Freezer
1 unit	Cutter
1 unit	Molder
1 unit	Pressure canner other than retort
1 unit	Filling machine (bottle, can, pouch, fill and seal)
1 unit	Plastic sealer or impulse sealer
1 unit	Vacuum sealer except thermo form
1 unit	Digital weighing scale (25kg cap.)
1 unit	Vacuum sealer
1 unit	Freezer
1 unit	Plastic sealer

Note: *Access to and use of equipment/facilities can be provided through cooperative arrangements or MOA with other partner-companies/institutions.

MATERIALS	
QTY	DESCRIPTION
	Raw materials
10kg	Meat (Meat and Poultry)
10kg	Fish and other marine
10kg	Vegetable (fresh and defective)
10kg	Fruits
10kg	Root crops
10kg	Cereals and starches
10kg	Nuts and seeds

MATERIALS	
QTY	DESCRIPTION
50 pcs per training session	Packaging materials and supplies
100 pcs.	Containers / Bottles / Cans
100 pcs.	Caps
100 pcs.	Cap seals
100 pcs.	Labels
	Ingredients
5kg	Salt
5kg	Sugar and sweeteners
3kg	Condiments
3kg	Spices
3kg	Herbs
200g/ per additive	Preservatives/ Food additives: colors and flavors (varied sizes)
	PPEs
25 pcs	apron/laboratory gown
25 pcs	mouth masks
25 pairs	gloves
25 pcs	rubber boots
25 pcs	head gears such as caps, hairnets, ear plugs
25 pcs	sweat bands
1 set	First – Aid Kit

Note: *Access to and use of equipment/facilities can be provided through cooperative arrangements or MOA with other partner-companies/institutions.

List of Tools and Equipment per COC

COC 1 – ASSIST IN QUALITY INSPECTION

TOOLS	
QTY	DESCRIPTION
5 sets	Knives
5 pcs	Bucket
5 pcs	Chopping board
10 pcs	Sampling borer (<i>buriki</i>)
25 pcs.	Forceps
5 pcs	Thermometer
10 pcs	Beaker
	Sieve or strainer
10 pcs	Graduated cylinder
5 sets	Sets of standard weights
1 pc	Refractometer (with work instructions)
1 pc	pH meter (with work instructions)
9 pcs/ session	Containers <ul style="list-style-type: none"> ○ Trays ○ Canister (varied sizes)

EQUIPMENT	
QTY	DESCRIPTION
3 units	Stainless steel tables / Receiving table
1 unit	Belt conveyor and roller sorter

MATERIALS	
QTY	DESCRIPTION
5 kg per session	Livestock meat
5 kg per session	Poultry
5 kg per session	Fish and other marine
5 kg per session	Cereals and starches
5 kg each	Fruits and vegetables
2.5kg per session	Root crops
5 kg	Nuts
5 kg	Seeds
5kg per session	Fats and oils
200g/ Session/ supply	Processing supplies: <ul style="list-style-type: none"> ○ Salt ○ Sugar and sweeteners ○ Condiments ○ Spices ○ Herbs ○ Food additives

COC 2 – DISPENSE MATERIALS

TOOLS	
QTY	DESCRIPTION
	None

EQUIPMENT	
QTY	DESCRIPTION
	None

MATERIALS	
QTY	DESCRIPTION
100g/ session/ additive	Food additives <ul style="list-style-type: none"> • Colors • Flavors • Preservatives • Extenders • Binders • Cloudifier
5 kg each	Fruits and vegetables
5 kg	Livestock meat
5 kg	Poultry and poultry
5 kg each	Fish and other marine
500g/ session	Cereals and starches
2.5kg	Sugar and sweeteners
250ml/sess ion	Fats and oils
500g/ session/su pply	Processing supplies <ul style="list-style-type: none"> • Salt • Sugar • Condiments • Spices • Herbs • Sauces
25 units/ session/ Item	Packaging materials: <ul style="list-style-type: none"> • Bottles • Cans • Cups • Cup seal • Label • Pouches • Plastic bags

COC 3 – PREPARE PACKAGING MATERIALS AND SUPPLIES FOR PROCESSING

TOOLS	
QTY	DESCRIPTION
	None

EQUIPMENT	
QTY	DESCRIPTION
	None

MATERIALS	
QTY	DESCRIPTION
	Containers / Bottles / Cans
100pcs	Caps
100pcs	Cap seals
100pcs	Labels
25 units/ session	Pouches
50pcs/ session	Plastic bags
5pers product/ session	Secondary packaging materials: <ul style="list-style-type: none"> • Bottles • Cans • Cups • Cup seal • Label • Pouches • Plastic bags

COC 4 – OPERATE BASIC EQUIPMENT

TOOLS	
QTY	DESCRIPTION
	None

EQUIPMENT	
QTY	DESCRIPTION
1 unit	Mixer
1 unit	Blender
1 unit	Roaster
1 unit	Grinder
1 unit	Chopper
1 unit	Food processor
5 pcs	Weighing Scales
1 unit	Washing equipment
1 unit	Frying equipment
1 unit	Oven
1 unit	Conveyor
1 unit	Freezer
1 unit	Cutter
1 unit	Molder
1 unit	Pressure canner other than retort
1 unit	Filling machine (bottle, can, pouch, fill and seal)
1 unit	Plastic sealer or impulse sealer
1 unit	Vacuum sealer except thermo form

MATERIALS	
QTY	DESCRIPTION
	None

COC 5 – CLEAN AND SANITIZE EQUIPMENT AND PROCESSING / PACKAGING PREMISES

TOOLS	
QTY	DESCRIPTION
	None

EQUIPMENT	
QTY	DESCRIPTION
	None

MATERIALS	
QTY	DESCRIPTION
100mL session	Chemicals (cleaners, sanitizers, etc.)
250g/ session	Cleaning and scouring pads
5units/ session	Washcloth
5units/ session	Brush (floor brush)
5units/ session	Pail
5units/ session	Basin
5units/ session	Dipper
2 units	Hose
5units/ session	Mop
5units/ session	Mop wringer
5units/ session	Squeegee
1unit/ session	pressure washer
1unit/ Session	vacuum cleaner
2units/ Session	Garbage bin / Trash bag
2units/ Session	Towel dispenser

MATERIALS	
QTY	DESCRIPTION
5 strips per session	Chlorine paper (for testing effectiveness of sanitation)
1 unit	ATP (adenosine triphosphate) quick test

COC 6 – DEBONE AND FILLET FISH

TOOLS	
QTY	DESCRIPTION
25 units	Tweezor
18 units	Knives
5 units	Rubber hammer
10 units	HDPE Chopping board
10 units	Colander
10 units	Basin

EQUIPMENT	
QTY	DESCRIPTION
1 unit	Digital weighing scale (25kg cap.)
1 unit	Vacuum sealer
1 unit	Freezer
1 unit	Plastic sealer

MATERIALS	
QTY	DESCRIPTION
	Fishes <ul style="list-style-type: none"> • Dilis • Danggit • Bangus • Tilapia • Labahita • Yellow fin • Cream dory • Tuna

3.5 TRAINING FACILITIES

FOOD PROCESSING NC I

Based on a class size of 25 students/trainees

SPACE REQUIREMENT	SIZE IN METERS	AREA IN SQ. METERS	TOTAL AREA IN SQ. METERS
• Student/Trainee Working Space	2.00 x 2.00 per student/trainee	4.00 per student	100.00
• Lecture Room	10.00 x 6.00	60.00	60.00
• Learning Resource Center	3.00 x 5.00	15.00	15.00
• Storeroom (2)	5 x 5	50	50
• Sanitary Facility (washroom, changing area and comfort room) 3.1.1 Male/PWDs - Female/PWDs	2.5 x 4	10	10
TOTAL AREA			235

Note: *Access to and use of equipment/facilities can be provided through cooperative arrangements of MOA with other partner-companies/institutions.

3.6 TRAINER'S QUALIFICATIONS FOR PROCESSED FOOD AND BEVERAGES SECTOR

FOOD PROCESSING NC I

New Trainer

- Must be a holder of NTTC on Food Processing NC II or higher level
- Two (2) years industry experience within the last five (5) years

Existing Trainer

- Must be a holder of NTTC on Food Processing NC II or higher level
- At least forty (40) hours industry immersion within the last two (2) years

3.7 INSTITUTIONAL ASSESSMENT

Institutional Assessment is to be undertaken by the learner who enrolled in a structured learning program to determine the achievement of competencies. It is administered by the trainer/assessor at end of each learning module.

The result of the institutional assessment may be considered as an evidence for national assessment.

SECTION 4 ASSESSMENT AND CERTIFICATION ARRANGEMENTS

Competency Assessment is the process of collecting evidence and making judgments whether competency has been achieved. The purpose of assessment is to confirm that an individual can perform to the standards expected at the workplace as expressed in relevant competency standards.

The assessment process is based on evidence or information gathered to prove achievement of competencies. The process may be applied to a full qualification or employable unit(s) of competency in partial fulfillment of the requirements of the national qualification.

4.1 NATIONAL ASSESSMENT AND CERTIFICATION ARRANGEMENTS

4.1.1 A National Certificate (NC) is issued when a candidate has demonstrated competence on all units of competency in a qualification with a promulgated Training Regulations.

4.1.2 A Certificate of Competency (CoC) is issued by the Authority to individuals who were assessed as competent in a single unit or cluster of related units of competency.

4.1.2.1. Assist in Quality Inspection

4.1.2.2. Dispense Materials

4.1.2.3. Prepare Packaging Materials and Supplies for Processing

4.1.2.4. Operate Basic Equipment

4.1.2.5. Clean and Sanitize Equipment and Processing/Packaging Premises

4.1.2.6. Debone and Fillet Fish

4.1.3 Upon accumulation of the COCs acquired, an individual shall be issued the corresponding National Certificate for the Qualification.

4.1.4 Individuals wanting to be certified will have to be assessed in accordance with the requirements identified in the relevant unit/s of competency.

4.1.5 The industry shall determine assessment and certification requirements for each qualification with promulgated Training Regulations. It includes the following:

- a. Entry requirements for candidates
- b. Evidence gathering methods
- c. Qualification requirements of competency assessors
- d. Specific assessment and certification arrangements as identified by industry

4.1.6 Recognition of Prior Learning (RPL). Candidates who have gained competencies through informal training, previous work or life experiences may apply for recognition in a particular qualification through a recognition/assessment process.

4.2 COMPETENCY ASSESSMENT REQUISITE

4.2.1 **Self-Assessment Guide.** The self-assessment guide (SAG) is accomplished by the candidate prior to actual competency assessment. SAG is a pre-assessment tool to help the candidate and the assessor determine what evidence is available, where gaps exist, including readiness for assessment.

This document can:

- a) Identify the candidate's skills and knowledge
- b) Highlight gaps in candidate's skills and knowledge
- c) Provide critical guidance to the assessor and candidate on the evidence that need to be presented
- d) Assist the candidate to identify key areas in which practice is needed or additional information or skills that should be gained prior

4.2.2 **Accredited Assessment Center.** Only Assessment Center accredited by TESDA is authorized to conduct competency assessment. Assessment centers undergo a quality assured procedure for accreditation before they are authorized by TESDA to manage the assessment for National Certification.

4.2.3 **Accredited Competency Assessor.** Only accredited competency assessor is authorized to conduct assessment of competence. Competency assessors undergo a quality assured system of accreditation procedure before they are authorized by TESDA to assess the competencies of candidates for National Certification.

COMPETENCY MAP FOR PROCESSED FOOD AND BEVERAGES SECTOR

FOOD PROCESSING NC I

CORE UNITS OF COMPETENCY

Assist in Quality Inspection	Dispense Materials	Prepare Packaging Materials and Supplies for Processing	Operate Basic Equipment	Clean and Sanitize Equipment and Processing/Packaging Premises	Debone and Fillet Fish
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COMMON UNITS OF COMPETENCY

Apply Food Safety and Sanitation	Use Standard Measuring Devices / Instruments	Use Food Processing Tools, Equipment and Utensils	Implement Good Manufacturing Practice and Procedures
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BASIC UNITS OF COMPETENCY

Receive and respond to workplace communication	Work with others	Solve/address routine problems	Enhance self-management skills	Support innovation
Access and maintain information	Follow occupational safety and health policies and procedures	Apply environmental work standards	Adopt entrepreneurial mindset in the workplace	

GLOSSARY OF TERMS

For the purpose of this competency standard, the following words are defined:

1. **Basic equipment** - equipment requiring limited application and process knowledge and limited equipment adjustment.
2. **Cleaning** - the process of removing the maximum amount of soil from an article in the most efficient way.
3. **Competency** – the application of knowledge, skills and attitudes to perform work activities to the standard expected in the workplace.
4. **Dispense** – to provide, to give, to distribute.
5. **Defects** – refer to deviations from the required specifications
6. **Element** – building blocks of a unit of competency. It describes in outcome terms the functions that a person who works in a particular area of work is able to perform.
7. **E numbers** - all numbers prefixed with E are food additives which are legal in the whole of the European Union. Those prefixed with (E) are licensed for use in the United Kingdom and possibly other countries but not throughout the EU generally (International Dictionary of Food and Cooking, 1998).
8. **Evidence Guide** – a guide for assessment that provides information on critical aspects of competency, underpinning knowledge, underpinning skills, resource implications, context of assessment and assessment methods.
9. **Food additives** - substances intentionally added to foods to achieve or retain desired characteristics
10. **Food processing** - the methods and techniques used to transform raw ingredients into finished food products
11. **Forklift** - a powered industrial truck used to lift and transport materials, normally by means of steel forks inserted under the load.
12. **Good Manufacturing Practice (GMP)** - a combination of manufacturing and quality control procedures aimed at ensuring that products are consistently manufactured to their specifications.
13. **Grading** – the process of classifying into groups according to a set of recognized criteria
14. **GRAS** - Generally Regarded As Safe
15. **Hazard Analysis Critical Control Point (HACCP)** - a food safety management system which concentrates prevention strategies on known hazards and the risks of them occurring at specific points in the food chain.

16. **Hazard** – the potential to cause harm which may include bacteria, virus, toxin, parasite, chemical or physical hazard. Operational malpractices or other operations/processes can also become hazards if they lead to unacceptable contamination or growth and survival of organisms and microorganisms.
17. **Non-bulk** – ingredients, spices, pre-mixed ingredients
18. **Packaging** – any container or material used in the packaging of a product which may include materials in direct contact with the product, printed packs including labeling, and other materials including outer cartons or delivery cases.
19. **Packing** - act of putting materials and/or products in a container
20. **Pallet** - low, portable platform made of wood or metal or in combination to facilitate handling, storage or transport of materials and products as a unit load using forklift.
21. **Performance Criteria** – evaluative statements that specify what is to be assessed and the required level of performance.
22. **pH meter** - an instrument used to measure the acidity of a sample
23. **Portfolio** - documentary evidence of a person's knowledge and skills
24. **Pre-coding** – stamping/labeling of stickers of packaging materials
25. **Processing aid** – an additive which facilitates processing without significantly influencing the character or properties of the finished product (*Australian Institute of Food Science and Technology, and Association of Public Analysts*)
26. **Range of Variables** – describes the circumstances or context in which the work is to be performed.
27. **Raw materials** - consist of the main food material to be processed including minor food ingredients
28. **Refractometer** - instrument commonly used for measuring fluid concentrations such as sugar content (Brix level) of carbonated beverages, fruits, juices, and/or vegetables.
29. **Risk** - the probability that a particular adverse consequence results from a hazard within a stated time under stated conditions (*Australian Institute of Food Science and Technology, and Association of Public Analysts*)
30. **Salinometer** - instrument used to measure strength of brine
31. **Sampling** - the process of drawing or selecting product units from a lot to project the characteristics of a larger population.

32. **Sanitation** - the process of treating food contact and non-food contact surface with physical agents and chemicals to kill the residual microorganisms present after cleaning
33. **Sorting** - the process of classifying materials and/or products according to a set of criteria such as size, weight, color, variety, among others.
34. **Unit of Competency** – describes a work activity.



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