

TRAINING REGULATIONS

MASONRY NC I



CONSTRUCTION SECTOR (CIVIL WORKS)

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY
East Service Road, South Luzon Expressway (SLEX), Taguig City, Metro Manila

(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.

TABLE OF CONTENTS

MASONRY NC I

	Page No.
SECTION 1 DEFINITION OF QUALIFICATION	1
SECTION 2 COMPETENCY STANDARDS	2-71
• Basic Competencies	2-37
• Common Competencies	38-51
• Core Competencies	52-71
SECTION 3 TRAINING ARRANGEMENTS	72-104
3.1 Curriculum Design	72-96
3.2 Training Delivery	97-98
3.3 Trainee Entry Requirements	99
3.4 List of Tools, Equipment and Materials	100-102
3.5 Training Facilities	103
3.6 Trainers' Qualifications	104
3.7 Institutional Assessment	104
SECTION 4 ASSESSMENT AND CERTIFICATION ARRANGEMENT	105-106
COMPETENCY MAP	107-109
GLOSARRY OF TERMS	110
TRAINING REGULATIONS (TR) DOCUMENT REVISION HISTORY	111
ACKNOWLEDGEMENTS	112-114

**TRAINING REGULATIONS FOR
MASONRY NC I**

SECTION 1 MASONRY NC I QUALIFICATION

The **MASONRY NC I** qualification consists of competencies that a person must achieve that will enable him/her to prepare masonry materials, tools and equipment and perform basic masonry works.

This Qualification is packaged from the competency map of Construction – Civil Works sub-sector as shown in Annex A.

The units of competency comprising this qualification include the following:

CODE NO.	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
CODE NO.	COMMON COMPETENCIES
CON931201	Prepare construction materials and tools
CON311201	Observe procedures, specifications and manuals of instruction
CON311203	Perform mensurations and calculations
CON311204	Maintain tools and equipment
CODE NO.	CORE COMPETENCIES
CON711315	Prepare masonry materials
CON711316	Prepare masonry tools and equipment
CON711317	Perform basic masonry works

A person who has achieved this Qualification is competent to be a –

- Helper Mason
- Construction Helper

SECTION 2 COMPETENCY STANDARDS

This section gives the details and contents of the units of competency required in **MASONRY NC I**. These units of competency are categorized into basic, common and core competencies.

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 <i>communication skills</i> 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 <i>Written notices and instructions</i> are read and interpreted correctly in accordance with organizational guidelines 2.2 Routine written instructions are followed in sequence 2.3 Feedback is given to workplace supervisor based on the instructions/ information received	2.1 Organizational guidelines in regard to processing internal/ external information 2.2 Ethical work practices in handling communications 2.3 Overview of the Communication process 2.4 Effective	2.1 Conciseness in receiving and clarifying messages/ information/ communication 2.2 Accuracy in recording messages/ information 2.3 Clarifying and probing questions (Questioning

		questioning techniques (clarifying and probing)	Skills) 2.4 Skills in reading and recording and labeling data 2.5 Skills in locating information
--	--	---	--

RANGE OF VARIABLES

VARIABLE	RANGE
1. Written notices and instructions	May include: 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: 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

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

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: 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: 2.1 Supervisor or manager 2.2 Peers/work colleagues and clients 2.3 Other members of the organization
3. Feedback	May include: 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: 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: 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	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 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	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 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	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Written Test 3.2 Role play 3.3 Interview/Oral questioning 3.4 Structured and unstructured activity
4. Context for Assessment	<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 : 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	<p>3.1 All possible options are considered for resolution of the routine problem.</p> <p>3.2 Corrective actions are determined to resolve the problem and possible future causes</p> <p>3.3 Action plans are developed identifying measurable objectives, resource needs and timelines in accordance with safety and operating procedures</p>	<p>3.1 Competence includes a thorough knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations</p> <p>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</p> <p>3.3 Relevant equipment and operational processes</p> <p>3.4 Enterprise goals, targets and measures</p> <p>3.5 Enterprise quality OHS and environmental requirement</p> <p>3.6 Principles of decision making strategies and techniques</p> <p>3.7 Enterprise information systems and data collation</p> <p>3.8 Industry codes and standards</p>	<p>3.1 Using range of formal problem-solving techniques.</p> <p>3.2 Identifying and clarifying the nature of the problem.</p> <p>3.3 Devising and applying the best possible solution to a problem.</p> <p>3.4 Evaluating the solution</p>
4. Communicate action plans and recommendations to routine problems	<p>4.1 Report on recommendations are prepared</p> <p>4.2 Recommendations are presented to appropriate person.</p> <p>4.3 Recommendations are followed-up, if required</p>	<p>4.1 Competence includes a thorough knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations</p>	<p>4.1 Using range of formal problem solving techniques</p> <p>4.2 Identifying and clarifying the nature of the problem</p> <p>4.3 Devising the best possible solution to a</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		<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>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

VARIABLES	RANGE
1. Problem	May include: 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: 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. Scattergrams
3. Action plans	May include: 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: 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> <ul 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>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> <ul 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

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
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 Styles are identified 3.3 Range of learning strategies appropriate to specific tasks and describe work practices that assist their learning are identified and chosen	3.1 Kolb's Theory of Learning Styles (Converger, Diverger, Assimilator, Accommodator) 3.2 VAK Learning Style Model (Visual, Auditory, Kinesthetic) 3.3 Range of learning strategies appropriate to specific tasks and describe work practices that assist their learning	3.1 Identifying factors and strategies that assist learning 3.2 Applying learning styles to positively influence school/work performance 3.3 Using appropriate learning strategies to improve study habits and learning

RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal goals	May include: 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: 3.1 Joy 3.2 Gratitude 3.3 Hope 3.4 Serenity Negative emotions may include: 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: 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: 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

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul 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
<p>2. Resource Implications</p>	<p>The following resources for should be provided:</p> <ul style="list-style-type: none"> 2.1 Access to workplace and resources
<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 or simulation with oral questioning (ex. how to recognize emotions) 3.2 Case problems involving workplace diversity issues 3.3 Third-party report
<p>4. Context for Assessment</p>	<ul style="list-style-type: none"> 3.1 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.

ELEMENTS	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 innovative practices in the workplace is recognized 1.2 Creativity in innovation 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: <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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 <ol 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.
3. Methods of Assessment	Competency in this unit may be assessed through: <ol style="list-style-type: none"> 3.1. Written Test 3.2. Interview <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>
4. Context for Assessment	<ol style="list-style-type: none"> 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.

ELEMENTS	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	2.1. Find and select appropriate information 2.2. 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

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	that is needed 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

ELEMENTS	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: 1.1. Property 1.2. Organizational 1.3. Technical reference
2. Search engine	May include: 2.1. Crawler-based search engine 2.1.1. Google 2.1.2. AlltheWeb 2.1.3. AltaVista 2.2. Human-powered directories 2.2.1. Yahoo directory 2.2.2. Open directory 2.2.3. Looksmart
3. Sources	May include: 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"> 1.5 Identified and gathered needed information 1.6 Searched for information on the internet or an intranet 1.7 Studied and interpreted information 1.8 Handled files 1.9 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

ELEMENTS	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

ELEMENTS	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, materials, tools, machinery, and equipment</i> 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

	<ul style="list-style-type: none"> 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	<p>May include:</p> <ul style="list-style-type: none"> 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	<p>May include:</p> <ul style="list-style-type: none"> 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	<p>May include:</p> <ul style="list-style-type: none"> 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	<p>1.1 Related environmental hazards are recognized based on environmental work standards</p> <p>1.2 Environmental work standards are interpreted in accordance to relevant policies</p> <p>1.3 Required resources to minimize effect of environmental hazards are prepared based on relevant environmental work standards</p>	<p>1.1 Environmental Hazards</p> <p>1.2 Environmental Work Standards</p> <p>1.3 Required Resources</p> <p>1.4 OSH Standards</p> <p>1.5 Fight against poverty rights</p> <p>1.6 Environmental Protection</p> <p>1.7 Respect of Human Rights</p>	<p>1.1. Critical thinking</p> <p>1.2. Problem solving</p> <p>1.3. Observation Skills</p>
2. Follow environmental work procedures	<p>2.1 Environmental protection pre-cautionary activities are practiced based on environmental work procedures</p> <p>2.2 Work activities are executed in accordance with Environmental work Procedures</p> <p>2.3 Environmental Protection Post-Activities are accomplished based on environmental work procedures*</p>	<p>2.1 Environmental Protection</p> <p>2.2 Environmental Work Procedures</p> <p>2.3 Renewable Energies</p>	<p>2.1 Critical thinking</p> <p>2.2 Problem solving</p> <p>2.3 Observation Skills</p>

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: 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: 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: 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 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: 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

	<ul style="list-style-type: none"> 6.3 Aerosols 6.4 Asbestos 6.5 Batteries 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	<p>May include:</p> <ul style="list-style-type: none"> 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	<p>1.1 Entrepreneurial mindset in the workplace is determined from enterprise practices and policies.</p> <p>1.2 Entrepreneurial mindset in the workplace is studied and affirmed based on current enterprise practices</p> <p>1.3 Clarification from reliable sources is sought regarding entrepreneurial mindset and corporate culture.</p>	<p>1.1 Workplace policies and practices relating to entrepreneurship</p> <p>1.2 Elements of corporate culture</p> <p>1.3 Entrepreneurial mindset</p> <p>1.4 Entrepreneurial practices in the workplace</p> <p>1.5 Desirable attitudes:</p> <ul style="list-style-type: none"> - Patience - Willingness to learn - Attention to details 	<p>1.1 Identifying entrepreneurial mindset</p> <p>1.2 Studying and affirming entrepreneurial mindset</p> <p>1.3 Selecting and emulating desirable entrepreneurial practices</p> <p>1.4 Communication skills</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED 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: <ul style="list-style-type: none"> - Patience - 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 workplace thinking relating to: 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: 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: 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 : **PREPARE CONSTRUCTION MATERIALS AND TOOLS**

UNIT CODE : **CON931201**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes on identifying, requesting and receiving construction materials and tools in various workplace settings.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variable</i>	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify materials	1.1 Materials are identified as per job requirements 1.2 Quantity and <i>description of materials and tools</i> conform with the job requirements 1.3 Tools and accessories are identified according to job requirements	1.1 Different work specifications 1.2 Types and uses of tools and accessories	1.1 Identifying tools and accessories according to the job requirements
2. Prepare requisition of materials	2.1 <i>Materials and tools</i> needed are requested according to the identified requirements 2.2 Request is done as per <i>company standard operating procedures (SOP)</i> 2.3 Substitute materials and tools are provided without sacrificing cost and quality of work	2.1 Work requirements 2.2 Types and uses of tools and accessories 2.3 Material take-off 2.4 Requisition procedures	2.1 Preparing material take-off 2.2 Requesting materials and tools
3. Receive and inspect materials	3.1 Materials and tools issued are inspected as per quantity and specification 3.2 Tools, accessories and materials are checked 3.3 Materials and tools are set aside to appropriate location	3.1 Policy on receiving material deliveries 3.2 Material and tools quality and defects 3.3 Material handling	3.1 Checking and inspecting materials and tools 3.2 Storing/ stacking of tool and materials

RANGE OF VARIABLES

VARIABLE	RANGE
1. Description of materials and tools	May include: 2.1 Brand name 2.2 Size 2.3 Capacity 2.4 Kind of application
2. Tools and accessories	May include: 1.1 Electrical supplies 1.2 Mechanical supplies 1.3 Cleaning supplies
3. Company standard operating procedures	May include: 3.1 Job order 3.2 Requisition slip 3.3 Borrower slip

EVIDENCE GUIDE

1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1 Listed materials and tools according to quantity and job requirements 1.2 Requested materials and tools according to the list prepared and as per company SOP 1.3 Inspected issued materials and tools as per quantity and job specifications 1.4 Provided tools with safety devices
2. Resource Implications	The following resources should be provided: 2.1 Workplace location 2.2 Materials relevant to the unit of competency 2.3 Plans, drawings and specifications relevant to the activities
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Direct observation/Demonstration with oral questioning
4. Context of Assessment	4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center

UNIT OF COMPETENCY : **OBSERVE PROCEDURES, SPECIFICATIONS AND MANUALS OF INSTRUCTIONS**

UNIT CODE : **CON311201**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes on identifying, interpreting, applying services to specifications and manuals and storing manuals.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify and access specification/ manuals	1.1 Appropriate manuals are identified and accessed as per job requirements 1.2 Version and date of manual are checked to ensure that correct specification and procedures are identified	1.1 Types of manuals used in Masonry 1.2 Identification of symbols used in the manuals	1.1 Identifying manuals and specifications 1.2 Accessing information and data
2 Interpret manuals	2.1 Relevant sections, chapters of specifications/ manuals are located in relation to the work to be conducted 2.2 Information and procedure in the manual are interpreted in accordance with industry practices	2.1 Types of manuals used in Masonry 2.2 Types of symbols used in manuals 2.3 System of measurements 2.4 Unit conversion	2.1 Interpreting symbols and specifications 2.2 Accessing information and data 2.3 Applying conversion of units of measurements

ELEMENT	PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3 Apply information in manual	3.1 <i>Manual</i> is interpreted according to job requirements 3.2 Work steps are correctly identified in accordance with manufacturer's specification 3.3 Manual data are applied according to the given task 3.4 All correct sequencing and adjustments are interpreted in accordance with information contained on the manual or specifications	3.1 Types of manuals used in Masonry 3.2 Types and application of symbols in manuals 3.3 Unit conversion	3.1 Applying information from manuals
4 Store manuals	4.1 Manual or specification is stored appropriately to prevent damage, ready access and updating of information when required in accordance with company requirements	4.1 Types of manuals used in Masonry 4.2 Manual storing and maintaining procedures	4.1 Storing and maintaining manuals

RANGE OF VARIABLES

VARIABLE	RANGE
1. Manual	May include: 1.1 Manufacturer's Specification Manual 1.2 Maintenance Procedure Manual 1.3 Periodic Maintenance Manual

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires that the candidate: 1.1 Identified and accessed specification/manuals as per job requirements 1.2 Interpreted manuals in accordance with industry practices 1.3 Applied information in manuals according to the given task 1.4 Stored manuals in accordance with company requirements
2. Resource implications	The following resources should be provided: 2.1 All manuals/catalogues relative to construction sector
3. Methods of assessment	Competency in this unit may be assessed through: 3.1 Direct observation/Demonstration with Oral Questioning
4. Context of assessment	4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center

UNIT OF COMPETENCY : PERFORM MENSURATIONS AND CALCULATIONS

UNIT CODE : CON311203

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes on identifying and measuring objects based on the required performance standards.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variable	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Select measuring instruments	1.1 Object or component to be measured is identified, classified and interpreted according to the appropriate regular geometric shape 1.2 Measuring tools are selected/identified as per object to be measured or job requirements 1.3 Correct specifications are obtained from relevant sources 1.4 Measuring instruments are selected according to job requirements 1.5 Alternative measuring tools are used without sacrificing cost and quality of work	1.1 Types of measuring tools and its uses	1.1 Selecting measuring instruments

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variable	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Carry out measurements and calculations	2.1 Measurements are obtained according to job requirements 2.2 Alternative measuring tools are used without sacrificing cost and quality of work 2.3 Calculations needed to complete work tasks are performed using the four basic process of addition (+), subtraction (-), multiplication (x) and division (÷) 2.4 Calculations involving fractions, percentages and mixed numbers are used to complete workplace tasks 2.5 Numerical computation is self-checked and corrected for accuracy 2.6 Instruments are read to the limit of accuracy of the tool 2.7 Systems of measurement identified and converted according to job requirements/ISO 2.8 Workpieces are measured according to job requirements	2.1 Linear measurement 2.2 Geometrical measurement 2.3 Unit conversion 2.4 Ratio and proportion 2.5 Area	2.1 Interpreting formulas for volume, areas, perimeters of plane and geometric figures 2.2 Handling of measuring instruments

RANGE OF VARIABLES

VARIABLE	RANGE
1. Geometric shape	May include: 1.1 Round 1.2 Square 1.3 Rectangular 1.4 Triangle 1.5 Sphere 1.6 Conical
2. Measuring instruments	May include: 2.1 Micrometer (In-out, depth) 2.2 Vernier caliper (out, inside) 2.3 Thickness gauge 2.4 Torque gauge 2.5 Small hole gauge 2.6 Try-square 2.7 Protractor 2.8 Steel ruler 2.9 Voltmeter 2.10 Ammeter 2.11 Gauges 2.12 Thermometers
3. Measurements and calculations	May include: 3.1 Linear 3.2 Volume 3.3 Area 3.4 Wattage 3.5 Voltage 3.6 Amperage 3.7 Inside diameter 3.8 Length 3.9 Thickness 3.10 Outside diameter 3.11 Density

EVIDENCE GUIDE

1. Critical aspects of competency	<p>Assessment requires that the candidate:</p> <p>1.1 Selected and prepared appropriate measuring instruments in accordance with job requirements</p> <p>1.2 Performed measurements and calculations according to job requirements/ ISO</p>
2. Resource implications	<p>The following resources should be provided:</p> <p>2.1 Workplace location</p> <p>2.2 Problems to solve</p> <p>2.3 Measuring instrument appropriate to carry out tasks</p> <p>2.4 Instructional materials relevant to the propose activity</p>
3. Methods of assessment	<p>Competency in this unit may be assessed through:</p> <p>3.1 Direct observation/Demonstration with Oral Questioning</p>
4. Context of assessment	<p>4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center</p>

UNIT OF COMPETENCY : MAINTAIN TOOLS AND EQUIPMENT

UNIT CODE : CON311204

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes on checking condition, performing preventive maintenance and storing of construction painting tools and equipment.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Check condition of tools and equipment	1.1 Materials, tools and equipment are identified according to classification and job requirements 1.2 Non-functional tools and equipment are segregated and labeled according to classification 1.3 Safety of tools and equipment are observed in accordance with manufacturer's instructions 1.4 Condition of Personal Protective Equipment (PPE) are checked in accordance with manufacturer's instructions	1.1 Use of PPE 1.2 Handling of tools and equipment 1.3 Good housekeeping 1.4 Types and uses of lubricants 1.5 Types and uses of cleaning materials	1.1 Maintaining tools and equipment 1.2 Handling of tools and equipment 1.3 Identifying tools and equipment defects

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Perform basic preventive maintenance	2.1 Appropriate lubricants are identified according to types of equipment 2.2 Tools and equipment are lubricated according to preventive maintenance schedule or manufacturer's specifications 2.3 Measuring instruments are checked and calibrated in accordance with manufacturer's instructions 2.4 Tools are cleaned and lubricated according to standard procedures 2.5 Defective instruments, equipment and accessories are inspected and replaced according to manufacturer's specifications 2.6 Tools are inspected, repaired and replaced after use 2.7 Work place is cleaned and kept in safe state in line with Occupational Safety and Health (OSHS)	2.1 Use of PPE 2.2 Handling of tools and equipment 2.3 Good housekeeping 2.4 Types and uses of lubricants 2.5 Types and uses of cleaning materials 2.6 Methods and techniques 2.7 Procedures	2.1 Handling of tools and equipment 2.2 Performing preventive maintenance

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3 Store tools and equipment	3.1 Inventory of tools, instruments and equipment are conducted and recorded as per company practices 3.2 Tools and equipment are stored safely in appropriate locations in accordance with manufacturer's specifications or company procedures	3.1 Use of PPE 3.2 Handling of tools and equipment 3.3 Storing procedures and techniques 3.4 Storage conditions/ locations	3.1 Storing tools and equipment 3.2 Handling of tools and equipment

RANGE OF VARIABLES

VARIABLE	RANGE
1. Materials	May include: 1.1 Lubricants 1.2 Cleaning materials 1.3 Rust remover 1.4 Rugs 1.5 Spare parts
2. Tools and equipment	May include: 2.1 Tools Cutting tools - hacksaw, crosscut saw Boring tools - brace, hand drill Holding tools - vise grip, C-clamp, bench vise Threading tools - die and stock, taps 2.2 Measuring instruments/equipment
3. Personal Protective Equipment (PPE)	May include: 3.1 Goggles 3.2 Gloves 3.3 Safety shoes 3.4 Hard hat 3.5 Reflectorized Vest

EVIDENCE GUIDE

<p>1. Critical aspects of competency</p>	<p>Assessment requires that the candidate:</p> <ul style="list-style-type: none"> 1.1 Selected and used appropriate processes, tools and equipment to carry out task 1.2 Identified functional and non-functional tools and equipment 1.3 Checked, lubricated and calibrated tools, equipment and instruments according to manufacturer’s specifications 1.4 Replaced defective tools, equipment and their accessories 1.5 Observed and applied safe handling of tools and equipment and safety work practices 1.6 Prepared and submitted inventory report, where applicable 1.7 Maintained workplace in accordance with OSHA regulations 1.8 Stored tools and equipment safely in appropriate locations and in accordance with company practices
<p>2. Resource implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Workplace 2.2 Maintenance schedule 2.3 Maintenance materials, tools and equipment relevant to the proposed activity/task
<p>3. Methods of assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Direct observation/Demonstration with Oral Questioning 3.2 Written Examination
<p>4. Context of assessment</p>	<p>4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center.</p>

CORE COMPETENCIES

UNIT OF COMPETENCY : **PREPARE MASONRY MATERIALS**

UNIT CODE : **CON711315**

UNIT DESCRIPTOR : This unit covers the knowledge, skills, and attitudes to productively prepare masonry materials.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Gather materials to be hauled	1.1 Personal Protective Equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 Instruction is secured from immediate superior 1.3 Quantity and quality of masonry materials to be hauled is determined in accordance with instruction of immediate superior 1.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 1.5 Required output is completed as specified by the immediate supervisor based on work schedule.	1.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 1.2 Green Building Concept relative to Construction (3R, 5S) 1.3 Material preparation instructions 1.4 Basic linear and volume measurement 1.5 Basic mathematical operations 1.6 Safe handling of materials 1.7 Terminologies and types of concrete blocks, cement and aggregates 1.8 Terminologies and types of masonry anchors, ties and reinforcements 1.9 Distinction of defective and non-defective materials 1.10 Factors affecting productivity 1.11 Productivity work measurements 1.12 Ways of improving productivity 1.13 Adherence to work requirements	1.1 Listening skills 1.2 Communication skills 1.3 Organizing materials to be used 1.4 Applying basic mathematical operations 1.5 Applying basic linear and volume measurement 1.6 Applying productive methods and techniques in gathering of materials 1.7 Handling of materials 1.8 Implementing 3R and 5S

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Haul/ transport materials	2.1 Personal Protective Equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 2.2 Serviceability of appropriate hauling/transporting tools and equipment are checked as specified by the immediate superior 2.3 Materials are hauled based on quality, quantity and work schedule 2.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 2.5 Required output is completed as specified by the immediate supervisor based on work schedule.	2.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 2.2 Green Building Concept relative to Construction (3R, 5S) 2.3 Hauling and transporting procedures 2.4 Safe handling of materials 2.5 Terminologies and types of concrete hollow blocks, cement and aggregates and others 2.6 Distinction of defective and non-defective materials 2.7 Factors affecting productivity 2.8 Productivity work measurements 2.9 Ways of improving productivity 2.10 Adherence to work requirements	2.1 Listening skills 2.2 Communication skills 2.3 Organizing materials to be hauled/ transported 2.4 Handling and using of hauling tools and equipment 2.5 Applying productive methods and techniques in hauling / transporting of materials 2.6 Implementing 3R and 5S
3. Stockpile hauled materials	3.1 Personal Protective Equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 3.2 Identified location is prepared in accordance with instructions 3.3 Materials are sorted according to classification 3.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42)	3.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 3.2 Green Building Concept relative to Construction (3R, 5S) 3.3 Safe handling of materials 3.4 Terminology and types of concrete hollow blocks, cement and aggregates and others 3.5 Distinction of defective and non-defective materials 3.6 Factors affecting productivity 3.7 Productivity work measurements	3.1 Listening skills 3.2 Communication skills 3.3 Handling of materials 3.4 Applying productive methods and techniques in stockpiling of materials 3.5 Implementing 3R and 5S

	3.5 Required output is completed as specified by the immediate supervisor based on work schedule.	3.8 Ways of improving productivity 3.9 Adherence to work requirements	
--	---	--	--

RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes/ rubber boots 1.3 Proper uniform/clothing 1.4 Gloves (cotton) 1.5 Dust mask 1.6 Safety goggles 1.7 Reflectorized vest
2. Masonry Materials	May include: 2.1 Concrete hollow blocks 2.2 Cement 2.3 Sand 2.4 Water 2.5 Reinforcing bars / GI wires 2.6 Concrete nails/ Common wire nails 2.7 Lumber 2.8 Baluster 2.9 Other types of block
3. Hauling / transporting tools and equipment	May include: 3.1 Skid loader 3.2 Dumper 3.3 Material hoist 3.4 Pallet 3.5 Wheelbarrow 3.6 Buggy

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 Gathered materials to be hauled 1.2 Hauled/ transported materials 1.3 Stockpiled hauled materials 1.4 Observed and complied with safety and environmental regulations 1.5 Communicated with others to ensure effective work operation 1.6 Observed and complied with the productivity requirements 1.7 Complied with attitudinal work requirements
<p>2. Resource implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Actual or simulated workplace 2.2 Tools, materials and equipment needed to perform the required tasks 2.3 References and manuals 2.4 PPE 2.5 First Aid Kit
<p>3. Method of assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Demonstration/Observation with Oral Questioning
<p>4. Context for assessment</p>	<p>4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center.</p>

UNIT OF COMPETENCY : PREPARE MASONRY TOOLS AND EQUIPMENT

UNIT CODE : CON711316

UNIT DESCRIPTOR : This unit covers the knowledge, skills, and attitude required to productively prepare masonry tools and equipment.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Select tools and equipment	1.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 Instruction is secured from immediate superior 1.3 Masonry tools and equipment are checked based on job requirements 1.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 1.5 Required output is completed as specified by the immediate supervisor based on work schedule.	1.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 1.2 Green Building Concept relative to Construction (5S) 1.3 Communication 1.4 Tools and equipment preparation instructions 1.5 Terminologies and types of tools and equipment 1.6 Factors affecting productivity 1.7 Productivity work measurements 1.8 Ways of improving productivity 1.9 Adherence to work requirements	1.1 Listening skills 1.2 Communication skills 1.3 Organizing tools and equipment to be used 1.4 Handling of tools and equipment 1.5 Implementing 5S

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Transfer tools and equipment	2.1 Personal protective equipment (PPE is used in accordance with Rule 1080 of Occupational Safety and Health Standards 2.2 Tools and equipment are transferred based on quantity and work schedule as specified 2.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 2.4 Required output is completed as specified by the immediate supervisor based on work schedule.	2.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 5.1 Green Building Concept relative to Construction (5S) 2.2 Transferring procedures and instructions 2.3 Safe handling of tools and equipment 2.4 Terminologies and types of tools and equipment 2.5 Factors affecting productivity 2.6 Productivity work measurements 2.7 Ways of improving productivity 2.8 Adherence to work requirements	2.1 Listening skills 2.2 Communication skills 2.3 Handling of tools and equipment 2.4 Applying productive methods and techniques in transferring of tools and equipment 2.5 Implementing 5S

RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes/ rubber boots 1.3 Proper uniform 1.4 Gloves (cotton) 1.1 Dust mask 1.2 Safety goggles 1.3 Reflectorized vest
2 Masonry tools and equipment	May include: Tools 2.1 Trowel 2.2 Float 2.3 Measuring Steel Tape 2.4 Block Cutter 2.5 Shovel 2.6 Hammer 2.7 "Haka" (wire twister) Equipment 2.8 One-Bagger Mixer 2.9 Wheel Barrow

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 Selected tools and equipment based on job requirements 1.2 Transferred tools and equipment based on quantity and work schedule as specified 1.3 Observed and complied with safety and environmental regulations 1.4 Communicated with others to ensure effective work operation 1.5 Observed and complied with the productivity requirements 1.6 Complied with attitudinal work requirements
<p>2. Resource implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Actual or simulated workplace 2.2 Tools, materials and equipment needed to perform the required tasks 2.3 References and manuals 2.4 PPE 2.5 First Aid Kit
<p>3. Method of assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Demonstration/Observation with Oral Questioning
<p>4. Context for assessment</p>	<ul style="list-style-type: none"> 4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center

UNIT OF COMPETENCY : PERFORM BASIC MASONRY WORKS

UNIT CODE : CON711317

UNIT DESCRIPTOR : This unit deals with the outcomes required to productively perform basic masonry work under supervision by a higher-level mason. It covers the skills required to perform basic re-bar fabrication, erecting and dismantling scaffolds (1.8m and below); perform formworks fabrication and stripping; excavating, backfilling and compacting.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Perform excavation and backfilling / compaction	1.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 Excavation work is accomplished based on job specifications 1.3 Back filling and compaction are accomplished based on job specifications 1.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 1.5 Required output is completed as specified by the immediate supervisor based on work schedule.	1.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 1.2 Green Building Concept relative to Construction (3R, 5S) 1.3 Basic mathematical operations 1.4 Excavation and back filling procedures 1.5 Safe handling of materials, tools and equipment 1.6 Safety signs and symbols 1.7 Factors affecting productivity 1.8 Productivity work measurements 1.9 Ways of improving productivity 1.10 Adherence to work requirements	1.1 Working safely 1.2 Organizing materials to be used 1.3 Handling and use of tools and equipment 1.4 Communicating effectively 1.5 Using PPE 1.6 Applying basic mathematical operations 1.7 Applying productive methods and techniques in excavating and backfilling/ compacting 1.8 Implementing 3R and 5S

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Perform basic rebar fabrication	<p>2.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>2.2 Reinforcing steel bars (RSB) are identified, measured, cut and bent according to instructions</p> <p>2.3 Cut and bent reinforcing steel bars (RSB) are bundled according to <i>shape and size</i></p> <p>2.4 Fabricated reinforcing steel bar (RSB) is tagged according to cutting list</p> <p>2.5 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42)</p> <p>2.6 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>2.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>2.2 Green Building Concept relative to Construction (3R, 5S)</p> <p>2.3 Basic mathematics</p> <p>2.4 Interpret and follow instructions</p> <p>2.5 Safe handling of materials, tools and equipment</p> <p>2.6 Safety signs and symbols</p> <p>2.7 Factors affecting productivity</p> <p>2.8 Productivity work measurements</p> <p>2.9 Ways of improving productivity</p> <p>2.10 Adherence to work requirements</p>	<p>2.1 Working safely</p> <p>2.2 Organizing materials to be used</p> <p>2.3 Handling and use of tools and equipment</p> <p>2.4 Communicating effectively</p> <p>2.5 Applying basic mathematics</p> <p>2.6 Using PPE</p> <p>2.7 Applying productive methods and techniques in rebar fabrication</p> <p>2.8 Implementing 3R and 5S</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Erect and dismantle working platform	3.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 3.2 Components of working platform are checked based on job requirements 3.2 Working platform is erected in accordance with safety practices 3.3 Working platform is dismantled in accordance with safety practices 3.3 Components are inventoried and returned to stockpile area based on company rules and procedures 3.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 3.5 Required output is completed as specified by the immediate supervisor based on work schedule.	3.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 3.2 Green Building Concept relative to Construction (3R, 5S) 3.3 Basic linear measurement 3.4 Safe handling of materials, tools and equipment 3.5 Safety signs and symbols 3.6 Rules on safe erection, use and dismantling of scaffolds (1.8 m and below) 3.7 Scaffoldings construction elements and materials 3.8 Factors affecting productivity 3.9 Productivity work measurements 3.10 Ways of improving productivity 3.11 Adherence to work requirements	3.1 Working safely 3.2 Organizing materials to be used 3.3 Handling and use of tools and equipment 3.4 Communicating effectively (Interpreting and follow instructions) 3.5 Applying basic mathematics 3.6 Using PPE 3.7 Applying productive methods and techniques in erecting and dismantling of scaffold 3.8 Implementing 3R and 5S

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
4. Fabricate and strip basic formworks	<p>4.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>4.2 Formworks materials are identified and cut as required</p> <p>4.3 Fabrication of materials into basic forms is performed following instructions</p> <p>4.4 Formworks are stripped following established procedures</p> <p>3.6 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42)</p> <p>5.1</p> <p>4.5 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>4.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>4.2 Green Building Concept relative to Construction (3R, 5S)</p> <p>4.3 Basic linear measurement and basic mathematics</p> <p>4.4 Fabrication and dismantling procedures</p> <p>4.5 Safe handling of materials, tools and equipment</p> <p>4.6 Safety signs and symbols</p> <p>4.7 Basic stripping schedule</p> <p>4.8 Factors affecting productivity</p> <p>4.9 Productivity work measurements</p> <p>4.10 Ways of improving productivity</p> <p>4.11 Adherence to work requirements</p>	<p>4.1 Working safely</p> <p>4.2 Organizing materials to be used</p> <p>4.3 Handling and use of tools and equipment</p> <p>4.4 Communicating effectively</p> <p>4.5 Applying basic mathematics</p> <p>4.6 Using PPE</p> <p>4.7 Applying productive methods and techniques in fabrication, installation and dismantling of formworks</p> <p>4.8 Implementing 3R and 5S</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
5. Mix mortar	<p>5.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>5.2 Mixing tools and equipment to be used are selected and checked according to job requirements</p> <p>5.3 Mortar is mixed according to the requirements</p> <p>5.4 Mixed mortar is supplied to the appropriate personnel based on job requirements</p> <p>5.5 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42)</p> <p>5.6 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>5.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>5.2 Green Building Concept relative to Construction (3R, 5S)</p> <p>5.2 Volume measurement</p> <p>5.3 Basic mathematical operations</p> <p>5.4 Safe handling of materials, tools and equipment</p> <p>5.5 Terminologies and types of cement and sand</p> <p>5.6 Distinction of conforming and non-conforming materials</p> <p>5.7 Types and uses of mortar materials</p> <p>5.8 Basic mortar proportion</p> <p>5.9 Factors affecting productivity</p> <p>5.10 Productivity work measurements</p> <p>5.11 Ways of improving productivity</p> <p>5.12 Adherence to work requirements</p>	<p>5.1 Listening skills</p> <p>5.2 Communication skills</p> <p>5.3 Organizing materials to be used</p> <p>5.4 Applying basic mathematical operations</p> <p>5.5 Applying volume measurement</p> <p>5.6 Handling and use of tools and equipment</p> <p>5.7 Applying productive methods and techniques in mixing of mortar</p> <p>5.1 Implementing 3R and 5S</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
6. Mix concrete	<p>6.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>6.2 Mixing tools and equipment to be used are checked according to job requirements</p> <p>6.3 Concrete is mixed according to the instructions</p> <p>6.4 Mixed concrete is supplied to the appropriate personnel based on job requirements</p> <p>6.5 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42)</p> <p>6.6 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>6.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>6.2 Green Building Concept relative to Construction (3R, 5S)</p> <p>6.3 Volume measurement</p> <p>6.4 Ratio and proportion</p> <p>6.5 Safe handling of materials, tools and equipment</p> <p>6.6 Terminologies and types of cement and aggregates materials</p> <p>6.7 Distinction of conforming and non-conforming materials</p> <p>6.8 Types and uses of concrete materials</p> <p>6.9 Basic concrete proportion</p> <p>6.10 Factors affecting productivity</p> <p>6.11 Productivity work measurements</p> <p>6.12 Ways of improving productivity</p> <p>6.13 Adherence to work requirements</p>	<p>6.1 Listening skills</p> <p>6.2 Communication skills</p> <p>6.3 Organizing materials to be used</p> <p>6.4 Applying basic mathematical operations</p> <p>6.5 Applying volume measurement</p> <p>6.6 Sorting of conforming and non-conforming materials.</p> <p>6.7 Handling and use of tools and equipment</p> <p>6.8 Applying productive methods and techniques in mixing of concrete</p> <p>6.9 Implementing 3R and 5S</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
7. Perform concreting work	7.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 7.2 Gravel bed is placed and compacted based on job requirements 7.3 Fresh concrete is placed on wall footings, columns and lintel beams based on job requirements 7.4 Consolidation of fresh concrete by vibration is performed (use of vibrator, optional) 7.5 Curing of concrete is performed based on job requirements 7.6 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 7.7 Required output is completed as specified by the immediate supervisor based on work schedule.	7.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 7.2 Green Building Concept relative to Construction (3R, 5S) 7.3 Safety signs and symbols 7.4 Concreting work procedures 7.5 Safe handling of materials, tools and equipment 7.6 Factors affecting productivity 7.7 Productivity work measurements 7.8 Ways of improving productivity 7.9 Adherence to work requirements	7.1 Working safely 7.2 Organizing materials to be used 7.3 Handling and use of tools and equipment 7.4 Communicating effectively 7.5 Applying basic mathematics 7.6 Using PPE 7.7 Applying productive methods and techniques in concreting processes 7.8 Implementing 3R and 5S

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
8. Perform basic block laying	<p>8.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>8.2 Starter blocks are pre-laid on the guide line according to job requirements</p> <p>8.3 Reinforcing steel bars are installed according to job requirements</p> <p>8.4 Mortar is spread on the base of blocks according to job requirements</p> <p>8.5 Blocks are positioned / laid according to job requirements</p> <p>8.6 Periodic checking of plumbness is done during block laying</p> <p>8.7 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42)</p> <p>8.8 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>8.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>5.3 Green Building Concept relative to Construction (3R, 5S)</p> <p>8.2 Safety signs and symbols</p> <p>8.3 Block laying procedures</p> <p>8.4 Safe handling of materials, tools and equipment</p> <p>8.5 Factors affecting productivity</p> <p>8.6 Productivity work measurements</p> <p>8.7 Ways of improving productivity</p> <p>8.8 Adherence to work requirements</p>	<p>8.1 Organizing materials to be used</p> <p>8.2 Handling and use of tools and equipment</p> <p>8.3 Communicating effectively</p> <p>8.4 Applying productive methods and techniques in laying of blocks</p> <p>8.5 Implementing 3R and 5S</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
9. Perform housekeeping	<p>9.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards.</p> <p>9.2 Excess/un-used materials are recovered and stockpiled according to company rules and procedures</p> <p>9.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42)</p> <p>9.4 Tools and other materials are cleaned after use.</p> <p>9.5 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>9.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>9.2 Green Building Concept relative to Construction (3R, 5S)</p> <p>9.3 Safe handling and standard specification of materials and tools</p> <p>9.4 Safety signs and symbols</p> <p>9.5 Adherence to work requirements</p>	<p>9.1 Working safely</p> <p>9.2 Organizing materials to be stored</p> <p>9.3 Handling and use of materials and tools</p> <p>9.4 Communicating effectively</p> <p>9.5 Using PPE</p> <p>9.6 Implementing 3R and 5S</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: <ul style="list-style-type: none"> 1.1 Hard hat 1.2 Safety shoes/ rubber boots 1.3 Proper uniform/clothing 1.4 Gloves (cotton) 1.5 Dust mask 1.6 Safety goggles 1.7 Reflectorized vest
2. Job specifications	May include: <ul style="list-style-type: none"> 2.1 Established lay-out 2.2 Soil condition 2.3 Required depth and width
3. Shape and size	May include: <ul style="list-style-type: none"> 3.1 Bar diameter (10, 12, 16 mm) 3.2 Grade of re-bar (40) 3.3 Type of bend
4. Components of working platform	May include: <ul style="list-style-type: none"> 4.1 Steel <ul style="list-style-type: none"> 4.1.1 A/H frame 4.1.2 Cross brace 4.1.3 Base jack 4.1.4 Walking board 4.1.5 Toe board 4.1.6 Railing 4.1.7 Tubular pipe 4.1.8 Arm lock 4.2 Wood <ul style="list-style-type: none"> 4.2.1 2 x 4 rough lumber 4.2.2 2 x 2 rough lumber 4.2.3 Wood planks 4.2.4 Nails
5. Safety practices	May include: <ul style="list-style-type: none"> 5.1 Standard PPE 5.2 Check the condition of the working platform 5.3 Provision of appropriate safety signs 5.4 Sufficient lighting for the workplace 5.5 Good housekeeping

VARIABLE	RANGE
6. Formworks materials	May include: 6.1 Plywood 6.2 Rough lumber 6.3 Nails 6.4 Tie wire 6.5 Form oil 6.6 Tie rod / form tie
7. Mixing tools and equipment	May include: 7.1 One bagger mixer 7.1.1 Mortar Mixer 7.1.2 Concrete Mixer 7.2 Mixing board 7.3 Shovel 7.4 Pails 7.5 Screen wire (2-3mm mesh) 7.6 Mixing box 7.7 Bucket
8. Appropriate personnel	May include: 8.1 Plasterer 8.2 Block layer 8.3 Tile Setter

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 Performed excavation and backfilling/compaction based on job specifications 1.2 Performed basic rebar fabrication 1.3 Erected and dismantled working platform in accordance with safety practices 1.4 Fabricated and stripped basic formworks following established procedures 1.5 Mixed mortar according to the requirements 1.6 Mixed concrete according to the instructions 1.7 Performed concreting work based on job requirements 1.8 Performed basic block laying according to job requirements 1.9 Performed housekeeping 1.10 Observed and complied with safety and environmental regulations 1.11 Communicated with others to ensure effective work operation 1.12 Observed and complied with the productivity requirements 1.13 Complied with attitudinal work requirements
<p>2. Resource implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Actual or simulated workplace 2.2 Tools, materials and equipment needed to perform the required tasks 2.3 References and manuals 2.4 PPE 2.5 First Aid Kit
<p>3. Method of assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Demonstration/Observation with Oral Questioning
<p>4. Context for assessment</p>	<ul style="list-style-type: none"> 4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center.

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 **MASONRY 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 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 accompany their curricula.

Course Title: MASONRY NC I

Nominal Training Duration:	47 Hours	Basic Competencies
	20 Hours	Common Competencies
	<u>56 Hours</u>	Core Competencies
	Total	123 Hours

Course Description:

This course is designed to provide the learner with knowledge, practical skills and attitude, applicable in performing work activities involve in preparing masonry materials, tools and equipment and preparing basic masonry works. This includes 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 achieved.

**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
	1.2 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

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
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
	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

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
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"> - Show mastery of knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations - Relevant equipment and operational processes - Enterprise goals, targets and measures - Enterprise quality OHS and environmental requirement - Enterprise information systems and data collation - 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"> • 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"> • Show mastery of the current industry hardware and software products and services <ul style="list-style-type: none"> - Show mastery of knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations - Relevant equipment and operational processes - Enterprise goals, targets and measures - Enterprise quality OHS and environmental requirement - Enterprise information systems and data collation - 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

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	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"> - Show mastery of knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations - Relevant equipment and operational processes - Enterprise goals, targets and measures - Enterprise quality OHS and environmental requirement - Enterprise information systems and data collation - 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

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	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"> - Show mastery of knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations - Relevant equipment and operational processes - Enterprise goals, targets and measures - Enterprise quality OHS and environmental requirement - Enterprise information systems and data collation - 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 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
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	3.1.1 Review Kolb's Theory of Learning Styles 3.1.2 Describe VAK Learning Style Model (Visual, Auditory, Kinesthetic) 3.1.3 Cite learning strategies appropriate to specific tasks and describe work practices that assist learning 3.1.4 Identify factors and strategies that assist learning 3.1.5 Apply learning styles to positively influence school/work performance 3.1.6 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

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
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

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	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-the-job performance. • 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 	1 Hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
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 • Perform exercises on information gathering 	<ul style="list-style-type: none"> • Lecture • Demonstration • Practical exercises 	<ul style="list-style-type: none"> • Oral evaluation • Written Test • Observation 	3 Hours
	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 • Managing 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
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, - Dangers and unjustifiable risks to human health - Energy and natural resource consumption and the provision of transport services 	<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
	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
(20 HOURS)**

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	Assessment Methods	Nominal Duration
1. Prepare construction materials and tools	1.1 Identify materials	<ul style="list-style-type: none"> • Identifying tools according to the job requirements • Identifying materials and accessories according to the job requirements 	<ul style="list-style-type: none"> • Lecture-demonstration • Group discussion • PowerPoint presentation 	<ul style="list-style-type: none"> • Demonstration with oral questioning • Written examination • Portfolio (credentials) 	1 Hour
	1.2 Requisition materials	<ul style="list-style-type: none"> • Preparing material take-off • Requesting materials and tools 	<ul style="list-style-type: none"> • Simulation • Discussion 	<ul style="list-style-type: none"> • Demonstration with oral questioning 	1 Hour
	1.3 Receive and inspect materials	<ul style="list-style-type: none"> • Checking and inspecting materials and tools • Storing/ stacking of tool and materials 	<ul style="list-style-type: none"> • Practical Exercise • Demonstration 	<ul style="list-style-type: none"> • Written / Oral Test • Demonstration with oral questioning 	2 Hours
2. Observe procedures, specifications and manuals of instructions	2.1 Identify and access specification/ manuals	<ul style="list-style-type: none"> • Identifying manuals and specifications • Accessing information and data 	<ul style="list-style-type: none"> • Lecture-demonstration 	<ul style="list-style-type: none"> • Demonstration with oral questioning • Written examination 	2 Hours
	2.2 Interpret manuals	<ul style="list-style-type: none"> • Interpreting symbols and specifications • Accessing information and data • Applying conversion of units of measurements 	<ul style="list-style-type: none"> • Actual demonstration • Group discussion 	<ul style="list-style-type: none"> • Demonstration with oral questioning • Written examination 	2 Hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	Assessment Methods	Nominal Duration
	2.3 Apply information in manual	<ul style="list-style-type: none"> Applying information from manuals 	<ul style="list-style-type: none"> Demonstration Group discussion 	<ul style="list-style-type: none"> Demonstration with oral questioning 	2 Hours
	2.4 Store Manual	<ul style="list-style-type: none"> Storing and maintaining manuals 	<ul style="list-style-type: none"> Demonstration Group discussion 	<ul style="list-style-type: none"> Demonstration with oral questioning Practical and oral exam 	2 Hours
3. Perform mensurations and calculations	4.1 Select measuring instruments	<ul style="list-style-type: none"> Selecting measuring instruments 	<ul style="list-style-type: none"> Lecture-demonstration Group discussion 	<ul style="list-style-type: none"> Demonstration with oral questioning 	2 Hours
	4.2 Carry out measurements and calculations	<ul style="list-style-type: none"> Interpreting formulas for volume, areas, perimeters of plane and geometric figures Handling of measuring instruments 	<ul style="list-style-type: none"> Group discussion Practical Lab Demonstration 	<ul style="list-style-type: none"> Written examination Third party report Demonstration with oral questioning 	2 Hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	Assessment Methods	Nominal Duration
4. Maintain tools and equipment	5.1 Check condition of tools and equipment	<ul style="list-style-type: none"> • Maintaining tools and equipment • Handling of tools and equipment • Identifying tools and equipment defects 	<ul style="list-style-type: none"> • Lecture-demonstration • Group discussion 	<ul style="list-style-type: none"> • Demonstration with oral questioning 	1 Hour
	5.2 Perform basic preventive maintenance	<ul style="list-style-type: none"> • Handling of tools and equipment • Performing preventive maintenance 	<ul style="list-style-type: none"> • Simulation • Group discussion • Practical Lab • Demonstration 	<ul style="list-style-type: none"> • Written examination • Third party report • Demonstration with oral questioning 	2 Hours
	5.3 Store tools and equipment	<ul style="list-style-type: none"> • Storing tools and equipment • Handling of tools and equipment 	<ul style="list-style-type: none"> • Demonstration • Group discussion • Practical Lab 	<ul style="list-style-type: none"> • Practical exam • Written examination • Demonstration with oral questioning 	1 Hour

**CORE COMPETENCIES
(56 HOURS)**

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	Assessment Methods	Nominal Duration
1. Prepare masonry materials	1.1 Gather materials to be hauled	<ul style="list-style-type: none"> • Identify and explain the composition, uses and types of masonry materials • Select and use appropriate PPE to specific tasks • Enumerate and explain the basic methods and processes in masonry construction • Practicing 3R and 5S • Identify and describe safe work practices and first aid regulations • Perform safe work practices and respond to emergency situations • Measuring work productivity • Utilizing most productive practice 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	8 Hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	1.2 Haul/transport materials	<ul style="list-style-type: none"> • Identify hauling equipment for specific material • Enumerate and explain the basic methods and processes in hauling/transporting materials • Select and use appropriate PPE to specific tasks • Identify and describe safe work practices and first aid regulations • Practicing 3R and 5S • Perform safe work practices and respond to emergency situations. • Measuring work productivity • Utilizing most productive practice 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	Assessment Methods	Nominal Duration
	1.3 Stockpile hauled materials	<ul style="list-style-type: none"> • Identify location of stockpiling for specific materials • Enumerate and explain the basic methods and processes in stockpiling • Select and use appropriate PPE to specific tasks • Identify and describe safe work practices and first aid regulations • Perform safe work practices and respond to emergency situations • Practicing 3R and 5S • Measuring work productivity • Utilizing most productive practice 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
2. Prepare masonry tools and equipment	2.1 Select tools and equipment	<ul style="list-style-type: none"> • Identify and explain the uses of tools and equipment in basic masonry works • Identify and describe safety practices in operating tools and equipment • Select and use appropriate PPE to specific tasks • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	8 Hours
	2.2 Transfer tools and equipment	<ul style="list-style-type: none"> • Explain safe handling and transferring procedures of tools and equipment • Measuring work productivity • Utilizing most productive practice • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	Assessment Methods	Nominal Duration
3. Perform basic masonry works	3.1 Perform excavation and back filling / compaction	<ul style="list-style-type: none"> • Select and use appropriate PPE to specific tasks • Explain excavation procedures based on existing conditions • Explain backfilling/compaction procedures based on existing conditions • Perform safe work practices and respond to emergency situations • Measuring work productivity • Utilizing most productive practice • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	40 Hours
	3.2 Perform basic rebar fabrication	<ul style="list-style-type: none"> • Identify re-bar sizes • Explain cutting, bending and tagging procedures • Measuring work productivity • Utilizing most productive practice • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	3.3 Erect and dismantle working platform	<ul style="list-style-type: none"> • Identify scaffolds parts/components • Explain scaffold erection and dismantle procedures • Measuring work productivity • Utilizing most productive practice • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	Assessment Methods	Nominal Duration
	3.4 Fabricate and strip basic formworks	<ul style="list-style-type: none"> • Identify formworks parts/components • Explain fabrication, installation and stripping procedures • Measuring work productivity • Utilizing most productive practice • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	3.5 Mix mortar	<ul style="list-style-type: none"> • Determine quantity of mortar materials • Explain mixing procedures • Measuring work productivity • Utilizing most productive practice • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	3.6 Mix concrete	<ul style="list-style-type: none"> • Determine quantity of concrete materials • Explain mixing procedures • Measuring work productivity • Utilizing most productive practice • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	3.7 Perform concreting work	<ul style="list-style-type: none"> • Explain conveying, depositing, consolidation, finishing and curing procedures • Measuring work productivity • Utilizing most productive practice • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	Assessment Methods	Nominal Duration
	3.8 Perform basic block laying	<ul style="list-style-type: none"> • Identify and explain methods of laying blocks • Enumerate block laying procedures • Measuring work productivity • Utilizing most productive practice • Practicing 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	3.9 Perform housekeeping	<ul style="list-style-type: none"> • Explain 3R and 5S 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	

3.2 TRAINING DELIVERY

1. 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 completion of all specified competencies not on the specified nominal duration of learning.
2. 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:

2.1 Institution- Based:

- Dual Training System (DTS)/Dualized Training Program (DTP) which contain both in-school and in-industry training or fieldwork components. Details can be referred to the Implementing Rules and Regulations of the DTS Law and the TESDA Guidelines on the DTP;

- Distance learning is a formal education process in which majority of the instruction occurs when the students and instructor are not in the same place. Distance learning may employ correspondence study, audio, video, computer technologies or other modern technology that can be used to facilitate learning and formal and non-formal training. Specific guidelines on this mode shall be issued by the TESDA Secretariat.
- The traditional classroom-based or in-center instruction may be enhanced through use of learner-centered methods as well as laboratory or field-work components.

2.2 Enterprise-Based:

- 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 craftsperson wherein the agreement may be written or oral and the master craftsperson 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 craftsperson.
- Enterprise-based Training- where training is implemented within the company in accordance with the requirements of the specific company. Specific guidelines on this mode shall be issued by the TESDA Secretariat.

2.3 Community-Based – Community-Based – short term programs conducted by non-government organizations (NGOs), LGUs, training centers and other TVET providers which are intended to address the specific needs of a community. Such programs can be conducted in informal settings such as barangay hall, basketball courts, etc. These programs can also be mobile training program (MTP).

3.1 TRAINEE ENTRY REQUIREMENTS

Trainees or students who wish to enter this training should possess the following requirements:

- Can communicate both orally and in writing
- Can perform basic arithmetic operation
- Physically fit

3.2 LIST OF TOOLS, EQUIPMENT AND MATERIALS

List of tools, equipment and materials for the training of a maximum of 25 trainees for MASONRY NC I are as follows:

A. (Full Qualification)

TOOLS	
QTY	DESCRIPTION
10 pcs.	Bucket / Pail
1 pc.	Mixing board (4x8 feet)
12 pcs.	Shovel, flat
25 pcs.	Steel trowel (8 inches straight-edged pointed)
25 pcs.	Wooden float
25 pcs.	Steel tape (5 meters)
5 pcs.	Plumb bob
2 sets	Scaffolding (2 layers, 1.2 meters)
5 pcs.	Chalk line
5 pcs.	Cross-cut saw (18 inches)
2 pcs.	Bar cutter
2 pcs.	Bar bender
5 pcs.	Steel square
5 pcs.	Cold chisel
5 pcs.	Hacksaw
5 pcs.	Level hose (5 meters)
25 pcs.	Claw hammer
5 pcs.	Measuring box

TOOLS	
QTY	DESCRIPTION
5 pcs.	Hack saw blade
5 pcs.	Steel brush
5 pcs.	Wheelbarrow
5 pcs.	Crow bar, 18 inches
5 pcs.	Manual tampering tool
1 pc.	Concrete vibrator
5 pcs.	Level bar

EQUIPMENT	
QTY	DESCRIPTION
1 unit	One bagger mixer (gas operated)
2 pcs.	Block cutter (7 inches blade diameter)

MATERIAL	
QTY	DESCRIPTION
250 pcs.	Concrete Hollow blocks (4 inches)
10 bags	Cement
25 pcs.	Reinforcing bars (10 mm diameter)
3 m ³	Sand
Var	Water
5 kls.	GI wire, #20
10 kls.	Common wire Nails (assorted sizes)
30 pcs.	Lumber (2" x 2" x 10')

MATERIAL	
QTY	DESCRIPTION
2.5 kls.	Concrete nails (1 1/2 inch)
5 bags	Lime
25 pcs.	Pencil
5 rolls	Nylon string (5 meter length)
2.5 m ³	Gravel (¾ inch)
5 m	Sand Screen (100mm)
10 pcs	Plywood (½" X 4' X 8')

PERSONAL PROTECTIVE EQUIPMENT (PPE)	
QTY	DESCRIPTION
One per trainee	Safety shoes/ rubber boots (Trainee to provide)
One per trainee	Proper uniform/clothing (Trainee to provide)
One per trainee	Gloves (cotton) (Trainee to provide)
One per trainee	Safety goggles (Trainee to provide)
25 pcs.	Reflectorized vest

3.5 TRAINING FACILITIES

The masonry workshop must be of concrete structure. Based on class size of 25 students/trainees the space requirements for the teaching/learning and circulation areas are as follows:

<u>Space Requirement</u>	<u>Size in Meters</u>	<u>Area in Sq. Meters</u>
Practical Training Area	20 x 25	500
Library	4 x 5	20
Lecture Room	8 x 6	48
Tool Room/Storage	4 x 5	20
Wash room/Toilet	4 x 5	20
Circulation area	10 x 6	60
<u>TOTAL AREA</u>		668

3.6 TRAINERS' QUALIFICATION

- Holder of National TVET Trainer Certificate Level I (NTTC Level I) in MASONRY NC II
- Must have completed the 40-Hour Construction Occupational Safety and Health (COSH) per Department Order No. 13 s. 1998, Guidelines Governing Occupational Safety and Health in the Construction Industry conducted by OSHC and DOLE accredited Safety Training Organizations
- Must have had at least 2-years job/industry experience in Masonry

3.7 INSTITUTIONAL ASSESSMENT

Institutional assessment is undertaken by trainees to determine their achievement of units of competency. A certificate of achievement is issued for each unit of Competency.

SECTION 4 ASSESSMENT AND CERTIFICATION ARRANGEMENT

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 an 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 in all unit/s of competency of a qualification with a promulgated Training Regulations.
- 4.1.2 Individuals wanting to be certified will have to be assessed in accordance with the requirements identified in the evidence guide of the relevant unit/s of competency.
- 4.1.3 Recognition of Prior Learning (RPL). Candidates who have gained competencies through informal training, previous work and/or life experiences may apply for recognition in a particular qualification through competency assessment:
- 4.1.4 Existing National Certificate in Masonry NC I will be renewed and converted to the amended Training Regulations for Masonry NC I.
- 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

4.2 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 - CONSTRUCTION SECTOR
(Civil Works)
MASONRY NC I**

ANNEX A

BASIC COMPETENCIES

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
Participate in workplace communication	Work in Team Environment	Solve/address general workplace problems	Develop career and life decisions	Contribute to workplace innovation	Present relevant information	Practice occupational safety and health policies and procedures	Exercise efficient and effective sustainable practices in the workplace	Practice entrepreneurial skills in the workplace
Lead workplace communication	Lead small teams	Apply critical thinking and problem-solving techniques in the workplace	Work in a diverse environment	Propose methods of applying learning and innovation in the organization	Use information systematically	Evaluate occupational safety and health work practices	Evaluate environmental work practices	Facilitate entrepreneurial skills for micro-small-medium enterprises (MSMEs)

BASIC COMPETENCIES

Utilize specialize specialized communication skill	Develop and lead teams	Perform higher order thinking processes and apply techniques in the workplace	Contribute to the practice of social justice in the workplace	Manage innovative work instructions	Manage and evaluate usage of information	Lead in improvement of Occupational Safety and Health Program, Policies and Procedures	Lead towards improvement of environmental work programs, policies and procedures	Sustain entrepreneurial skills
Manage and sustain effective communication strategies	Manage and sustain high performing teams	Evaluate higher order thinking skills and adjust problem solving techniques	Advocate strategic thinking for global citizenship	Incorporate innovation into work procedures	Develop systems in managing, and maintaining information	Manage implementation of OSH programs in the workplace	Manage implementation of environmental program in the workplace	Develop and sustain a high-performing enterprise

COMMON COMPETENCIES

Prepare construction materials and tools	Observe procedures, specifications and manual of instructions	Interpret technical drawings and plans	Perform mensurations and calculations	Maintain tools and equipment	
---	--	---	--	-------------------------------------	--

CORE COMPETENCIES

Prepare masonry materials	Perform masonry tools and equipment	Perform basic masonry works	Lay concrete hollow block for structure	Plaster wall surface
Perform basic tile setting	Perform straight-to-finish floor concreting	Rectify non-conforming concrete and masonry surfaces	Lay tiles on plain and curved surfaces for walls, floors and other application	Repair of tiles on plain and curved surfaces
Layout reference lines	Fabricate, install and remove wooden formworks	Install wooden door jamb, window frame and panels	Install ceiling and wall frames and panels	Fabricate and install wooden stairs
Install wooden floor supports and panels	Fabricate and install roofing system	Fabricate and install wooden cabinet	Install decorative moldings	Install ceiling frames and panels or acoustical ceiling
Install eaves or soffits frames and panels and vents assembly	Install partition wall and/or cladding frames and boards	Install laminate floors	Install parquet floors	Erect and dismantle support type scaffold
Handle, segregate and stack scaffolding components	Prepare pipefitting materials, tools and equipment for spool pipe connection	Install above ground piping system	Install overhead piping system	Install underground piping system
Lay tiles on plain and curved surfaces for walls, floors and other application	Repair of tiles on plain and curved surfaces			

GLOSSARY OF TERMS

- 1. DOWEL** A headless, cylindrical pin which, is sunk into corresponding holes
- 2. LINTEL** Refers to the horizontal member over an opening such as door or window, usually carrying the load
- 3. MORTAR** Refers to a mixture of cement, sand and water used for laying bricks or masonry units
- 4. REBAR** Refers to the reinforcing bars that are embedded in building components such as concrete, masonry walls, columns, beams and other structural parts
- 4. SCAFFOLD** Refers to a temporary or movable platform supported on the ground or suspended, used for working at considerable heights above the ground.
- 5. FORMWORKS** A set of wood or steel forms in place to hold wet concrete until it hardens
- 6. CURING** Is defined as providing adequate moisture, temperature, and time to allow the concrete to achieve the desired properties for its intended use.
- 7. 5S** The five in a 5S workplace organizational and housekeeping methodology refers to five steps – sort, set in order, shine, standardize and sustain.
- 8. 3R** The principle of reducing waste, reusing and recycling resources and products
 - Reduce** The waste management concept of reducing what is produced and what is consumed
 - Reuse** The waste management concept of reusing items, or re-purposing them for a use different than what they are intended for
 - Recycling** The waste management concept of transforming again into a raw material that can be shaped into a new item



**TRAINING REGULATIONS (TR)
DOCUMENT REVISION HISTORY**

Qualification Title: Masonry NC I
Qualification Code: **CONMAS118**

Revision No.	Document Types*	Qualification Title	TESDA Board Resolution No./ Date	Deployment (TESDA Circular/ Implementing Guidelines)
00	Document Created	Masonry NC I	2006-09 / 04/20/06	N/A
01	Document Amended	Masonry NC I	2018-31 / 10/29/18	No. 011 series of 2019

Legend: *Description Types
- **Document Created**
- **Document Amended**

ACKNOWLEDGMENTS

The Technical Education and Skills Development Authority (TESDA) wishes to extend thanks and appreciation to the many representatives of business, industry, academe and government agencies who donated their time and expertise to the development and validation of these Training Regulations.

TECHNICAL EXPERTS REVIEW PANEL

MARCELO R. ABAD

Consultant/ Industry Expert
Quezon City

JOHN S. JUAN

STIDS
Construction Industry Authority of the
Phils. (CIAP) - CMDF
Makati City

RIZALDY E. ANGELES

Construction Manager - Industry Expert
EEI Corporation
Quezon City

ALIPIO M. PANGANIBAN

Department Head - Industry Expert
Datem Construction
Quezon City

ROLANDO C. BADILLA

Technical Specialist – Industry Expert
James Hardie Philippines, Inc.
Cabuyao, Laguna

ANGELITO V. ZULUETA

Consultant/ Industry Expert
AVZ Management & Consulting Services
Singalong, Manila

JELUZ B. CORRO

Department Head - Industry Expert
Datem Construction
Quezon City

PHILIPPINE CONSTRUCTORS ASSOCIATION, INC. (PCA)

The PARTICIPANTS in the Validation of this Training Regulations

VISAYAS REGION

- Daleon Construction
- Holcim - Galing Mason
- Makati Development Corporation (MDC)
- Philippine Macro Development Corporation
- School for Knowledge Industrial Labor Leadership Service (SKILLS)
- TESDA Regional Office - Cebu
- TESDA Provincial Office - Cebu
- TESDA Regional Training Center - Cebu

MINDANAO REGION

- Allado Construction
- Association of Construction and Informal Workers (ACIW) - Davao
- Assumption College of Nabunturan
- Carmelo Delo Cientos National Trade Schools, (CCNTS)
- David M. Consunji, Inc. (DMCI) - Davao
- Makati Development Corporation (MDC) - Davao
- Tagum City Trade School (TCTS)
- PTC-San Isidro Manpower Training Center (SIMTRAC)
- RTC-Korea Phils. Vocational Training Center (KPCTC)

LUZON REGION

- Association of Construction and Informal Workers (ACIW)
- Construction Industry Authority of the Philippines (CIAP) -CMDF
- Construction Industry Workers Council (CIWC)
- Construction Industry Workers Council (CIWC) -NACMADECO
- Datem Construction
- D. M. Consunji, Inc
- EEI Corporation
- James Hardie Philippines, Inc.
- Makati Development Corporation
- TESDA PTC - Tarlac
- Saint Peregrine Institute
- Vision Properties Development Corporation

The MEMBERS of the TESDA Board and Secretariat

The MANAGEMENT and STAFF of the TESDA Secretariat

- Qualifications and Standards Office (QSO)
- TR Development Team/Facilitators
 - Ma. Isabel G. Gamurot
 - Howard Mark N. Plete
 - Evangeline A. Cosep

