

# TRAINING REGULATIONS

## CARPENTRY NC II



### CONSTRUCTION SECTOR (CIVIL WORKS)

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

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

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

The Training Regulations (TR) serves as basis for:

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

Each TR has four sections:

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

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# TRAINING REGULATIONS FOR

## CARPENTRY NC II

### SECTION 1 CARPENTRY NC II

The **CARPENTRY NC II** Qualification consists of competencies on rough and finishing carpentry that a person must achieve in fabrication and installation of wooden materials and basic roof assembly.

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:

<b>CODE NO.</b>	<b>BASIC COMPETENCIES</b>
400311210	Participate in workplace communication
400311211	Work in a team environment
400311212	Solve/address general workplace problems
400311213	Develop career and life decisions
400311214	Contribute to workplace innovation
400311215	Present relevant information
400311216	Practice occupational safety and health policies and procedures
400311217	Exercise efficient and effective sustainable practices in the workplace
400311218	Practice entrepreneurial skills in the workplace

  

<b>CODE NO.</b>	<b>COMMON COMPETENCIES</b>
CON931201	Prepare construction materials and tools
CON311201	Observe procedures, specifications and manuals of instruction
CON311203	Perform mensurations and calculations
CON311204	Maintain tools and equipment

  

<b>CODE NO.</b>	<b>CORE COMPETENCIES</b>
CON711301	Layout reference lines
CON711302	Fabricate, install and remove wooden formworks
CON711303	Install wooden door jamb, window frame and panels
CON711304	Install ceiling and wall frames and panels
CON711305	Fabricate and install wooden stairs
CON711306	Install wooden floor supports and panels
CON711307	Fabricate and install roofing system
CON711308	Fabricate and install wooden cabinet

A person who has achieved this Qualification is competent to be a –  
□ Rough and Finishing Carpenter

## SECTION 2 COMPETENCY STANDARDS

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

### BASIC COMPETENCIES

**UNIT OF COMPETENCY : PARTICIPATE IN WORKPLACE COMMUNICATION**

**UNIT CODE : 400311210**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from <b>appropriate sources</b> 1.2 Effective questioning, active listening and speaking skills are used to gather and convey information 1.3 Appropriate <b>medium</b> is used to transfer information and ideas 1.4 Appropriate non-verbal communication is used 1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed	1.1 Effective verbal and nonverbal communication 1.2 Different modes of communication 1.3 Medium of communication in the workplace 1.4 Organizational policies 1.5 Communication procedures and systems 1.6 Lines of Communication 1.7 Technology relevant to the enterprise and the individual's work responsibilities 1.8 Workplace etiquette	1.1 Following simple spoken language 1.2 Performing routine workplace duties following simple written notices 1.3 Participating in workplace meetings and discussions 1.4 Preparing work-related documents 1.5 Estimating, calculating and recording routine workplace measures 1.6 Relating/ Interacting with people of various levels in the workplace 1.7 Gathering and providing basic information in response to workplace requirements 1.8 Basic business writing skills

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	1.6 Defined workplace procedures for the location and <b>storage</b> of information are used 1.7 Personal interaction is carried out clearly and concisely		1.9 Interpersonal skills in the workplace 1.10 Active-listening skills
2. Perform duties following workplace instructions	2.1 Written notices and instructions are read and interpreted in accordance with organizational guidelines 2.2 Routine written instruction are followed based on established procedures 2.3 Feedback is given to workplace supervisor based instructions/ information received 2.4 <b>Workplace interactions</b> are conducted in a courteous manner 2.5 Where necessary, clarifications about routine workplace procedures and matters concerning conditions of employment are sought and asked from <b>appropriate sources</b> 2.6 Meetings outcomes are interpreted and implemented	2.1 Effective verbal and non-verbal communication 2.2 Different modes of communication 2.3 Medium of communication in the workplace 2.4 Organizational/ Workplace policies 2.5 Communication procedures and systems 2.6 Lines of communication 2.7 Technology relevant to the enterprise and the individual's work responsibilities 2.8 Effective questioning techniques (clarifying and probing) 2.9 Workplace etiquette	2.1 Following simple spoken instructions 2.2 Performing routine workplace duties following simple written notices 2.3 Participating in workplace meetings and discussions 2.4 Completing work-related documents 2.5 Estimating, calculating and recording routine workplace measures 2.6 Relating/ Responding to people of various levels in the workplace 2.7 Gathering and providing information in response to workplace requirements 2.8 Basic questioning/querying 2.9 Skills in reading for information 2.10 Skills in locating

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Complete relevant work-related documents	3.1 Range of <b>forms</b> relating to conditions of employment are completed accurately and legibly 3.2 Workplace data is recorded on standard workplace forms and documents 3.3 Errors in recording information on forms/ documents are identified and acted upon 3.4 Reporting requirements to supervisor are completed according to organizational guidelines	3.1 Effective verbal and non-verbal communication 3.2 Different modes of communication 3.3 Workplace forms and documents 3.4 Organizational/ Workplace policies 3.5 Communication procedures and systems 3.6 Technology relevant to the enterprise and the individual's work responsibilities	3.1 Completing work-related documents 3.2 Applying operations of addition, subtraction, division and multiplication 3.3 Gathering and providing information in response to workplace requirements 3.4 Effective record keeping skills

## RANGE OF VARIABLES

VARIABLES	RANGE
1. Appropriate sources	May include: 1.1. Team members 1.2. Supervisor/Department Head 1.3. Suppliers 1.4. Trade personnel 1.5. Local government 1.6. Industry bodies
2. Medium	May include: 2.1. Memorandum 2.2. Circular 2.3. Notice 2.4. Information dissemination 2.5. Follow-up or verbal instructions 2.6. Face-to-face communication 2.7. Electronic media (disk files, cyberspace)
3. Storage	May include: 3.1. Manual filing system 3.2. Computer-based filing system
4. Workplace interactions	May include: 4.1. Face-to-face 4.2. Telephone 4.3. Electronic and two-way radio 4.4. Written including electronic means, memos, instruction and forms 4.5. Non-verbal including gestures, signals, signs and diagrams
5. Forms	May include: 5.1. HR/Personnel forms, telephone message forms, safety reports

## EVIDENCE GUIDE

1. Critical aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1. Prepared written communication following standard format of the organization 1.2. Accessed information using workplace communication equipment/systems 1.3. Made use of relevant terms as an aid to transfer information effectively 1.4. Conveyed information effectively adopting formal or informal communication
2. Resource Implications	<b>The following resources should be provided:</b> 2.1. Fax machine 2.2. Telephone 2.3. Notebook 2.4. Writing materials 2.5. Computer with Internet connection
3. Methods of Assessment	<b>Competency in this unit may be assessed through:</b> 3.1. Demonstration with oral questioning 3.2. Interview 3.3. Written test 3.4. Third-party report
4. Context for Assessment	4.1. Competency may be assessed individually in the actual workplace or through an accredited institution

**UNIT OF COMPETENCY: WORK IN A TEAM ENVIRONMENT**

**UNIT CODE : 400311211**

**UNIT DESCRIPTOR :** This unit covers the skills, knowledge and attitudes to identify one’s roles and responsibilities as a member of a team.

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Describe team role and scope	1.1 The <b><i>role and objective of the team</i></b> is identified from available <b><i>sources of information</i></b> 1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources	1.1 Group structure 1.2 Group development 1.3 Sources of information	1.1 Communicating with others, appropriately consistent with the culture of the workplace 1.2 Developing ways in improving work structure and performing respective roles in the group or organization
2. Identify one’s role and responsibility within a team	2.1 Individual roles and responsibilities within the team environment are identified 2.2 Roles and objectives of the team is identified from available <b><i>sources of information</i></b> 2.3 Team parameters, reporting relationships and responsibilities are identified based on team discussions and appropriate external sources	2.1 Team roles and objectives 2.2 Team structure and parameters 2.3 Team development 2.4 Sources of information	2.1 Communicating with others, appropriately consistent with the culture of the workplace 2.2 Developing ways in improving work structure and performing respective roles in the group or organization

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Work as a team member	3.1 Effective and appropriate forms of communications are used and interactions undertaken with team members based on company practices. 3.2 Effective and appropriate contributions made to complement team activities and objectives, based on <b><i>workplace context</i></b> 3.3 Protocols in reporting are observed based on standard company practices. 3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives	3.1 Communication Process 3.2 Workplace communication protocol 3.3 Team planning and decision making 3.4 Team thinking 3.5 Team roles 3.6 Process of team development 3.7 Workplace context	3.1 Communicating appropriately, consistent with the culture of the workplace 3.2 Interacting effectively with others 3.3 Deciding as an individual and as a group using group think strategies and techniques 3.4 Contributing to Resolution of issues and concerns

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Role and objective of team	May include: <ol style="list-style-type: none"> <li>1.1. Work activities in a team environment with enterprise or specific sector</li> <li>1.2. Limited discretion, initiative and judgement maybe demonstrated on the job, either individually or in a team environment</li> </ol>
2. Sources of information	May include: <ol style="list-style-type: none"> <li>2.1. Standard operating and/or other workplace procedures</li> <li>2.2. Job procedures</li> <li>2.3. Machine/equipment manufacturer's specifications and instructions</li> <li>2.4. Organizational or external personnel</li> <li>2.5. Client/supplier instructions</li> <li>2.6. Quality standards</li> <li>2.7. OHS and environmental standards</li> </ol>
3. Workplace context	May include: <ol style="list-style-type: none"> <li>3.1. Work procedures and practices</li> <li>3.2. Conditions of work environments</li> <li>3.3. Legislation and industrial agreements</li> <li>3.4. Standard work practice including the storage, safe handling and disposal of chemicals</li> <li>3.5. Safety, environmental, housekeeping and quality guidelines</li> </ol>

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1. Worked in a team to complete workplace activity</li> <li>1.2. Worked effectively with others</li> <li>1.3. Conveyed information in written or oral form</li> <li>1.4. Selected and used appropriate workplace language</li> <li>1.5. Followed designated work plan for the job</li> </ul>
<p>2. Resource Implications</p>	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>2.1. Access to relevant workplace or appropriately simulated environment where assessment can take place</li> <li>2.2. Materials relevant to the proposed activity or tasks</li> </ul>
<p>3. Methods of Assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1. Role play involving the participation of individual member to the attainment of organizational goal</li> <li>3.3. Case studies and scenarios as a basis for discussion of issues and strategies in teamwork</li> <li>3.4. Socio-drama and socio-metric methods</li> <li>3.5. Sensitivity techniques</li> <li>3.6. Written Test</li> </ul>
<p>4. Context for Assessment</p>	<ul style="list-style-type: none"> <li>4.1. Competency may be assessed in workplace or in a simulated workplace setting</li> <li>4.2. Assessment shall be observed while task are being undertaken whether individually or in group</li> </ul>

**UNIT OF COMPETENCY : SOLVE/ADDRESS GENERAL WORKPLACE PROBLEMS**

**UNIT CODE : 400311212**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes required to apply problem-solving techniques to determine the origin of problems and plan for their resolution. It also includes addressing procedural problems through documentation, and referral.

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Identify routine problems	1.1 Routine <b>problems or procedural problem</b> areas are identified 1.2 Problems to be investigated are defined and determined 1.3 Current conditions of the problem are identified and documented	1.1 Current industry hardware and software products and services 1.2 Industry maintenance, service and helpdesk practices, processes and procedures 1.3 Industry standard diagnostic tools 1.4 Malfunctions and resolutions	1.1 Identifying current industry hardware and software products and services 1.2 Identifying current industry maintenance, services and helpdesk practices, processes and procedures. 1.3 Identifying current industry standard diagnostic tools 1.4 Describing common malfunctions and resolutions. 1.5 Determining the root cause of a routine malfunction

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Look for solutions to routine problems	2.1 Potential solutions to problem are identified 2.2 Recommendations about possible solutions are developed, <b>documented</b> , ranked and presented to <b>appropriate person</b> for decision	2.1 Current industry hardware and software products and services 2.2 Industry service and helpdesk practices, processes and procedures 2.3 Operating systems 2.4 Industry standard diagnostic tools 2.5 Malfunctions and resolutions. 2.6 Root cause analysis	2.1 Identifying current industry hardware and software products and services 2.2 Identifying services and helpdesk practices, processes and procedures. 2.3 Identifying operating system 2.4 Identifying current industry standard diagnostic tools 2.5 Describing common malfunctions and resolutions. 2.6 Determining the root cause of a routine malfunction
3. Recommend solutions to problems	3.1 Implementation of solutions are <b>planned</b> 3.2 Evaluation of implemented solutions are planned 3.3 Recommended solutions are documented and submit to appropriate person for confirmation	3.1 Standard procedures 3.2 Documentation produce	3.1 Producing documentation that recommends solutions to problems 3.2 Following established procedures

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Problems/Procedural 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 1.5 Work-related problems outside of own work area
2. Appropriate person	May include: 2.1 Supervisor or manager 2.2 Peers/work colleagues 2.3 Other members of the organization
3. Document	May include: 3.1 Electronic mail 3.2 Briefing notes 3.3 Written report 3.4 Evaluation report
4. Plan	May include: 4.1 Priority requirements 4.2 Co-ordination and feedback requirements 4.3 Safety requirements 4.4 Risk assessment 4.5 Environmental requirements

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Determined the root cause of a routine problem</li> <li>1.2 Identified solutions to procedural problems.</li> <li>1.3 Produced documentation that recommends solutions to problems.</li> <li>1.4 Followed established procedures.</li> <li>1.5 Referred unresolved problems to support persons.</li> </ul>
<p>2. Resource Implications</p>	<p>2.1. Assessment will require access to a workplace over an extended period, or a suitable method of gathering evidence of operating ability over a range of situations.</p>
<p>3. Methods of Assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Case Formulation</li> <li>3.2 Life Narrative Inquiry</li> <li>3.3 Standardized test</li> </ul> <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>	<p>4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions.</p>

**UNIT OF COMPETENCY : DEVELOP CAREER AND LIFE DECISIONS**

**UNIT CODE : 400311213**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills, and attitudes in managing one’s emotions, developing reflective practice, and boosting self-confidence and developing self-regulation.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Manage one’s emotion	1.1 <b>Self-management strategies</b> are identified 1.2 Skills to work independently and to show initiative, to be conscientious, and persevering in the face of setbacks and frustrations are developed 1.3 Techniques for effectively handling negative emotions and <b>unpleasant situation</b> in the workplace are examined	1.1 Self-management strategies that assist in regulating behavior and achieving personal and learning goals (e.g. Nine self-management strategies according to Robert Kelley) 1.2 Enablers and barriers in achieving personal and career goals 1.3 Techniques in handling negative emotions and unpleasant situation in the workplace such as frustration, anger, worry, anxiety, etc.	1.1 Managing properly one’s emotions and recognizing situations that cannot be changed and accept them and remain professional 1.2 Developing self-discipline, working independently and showing initiative to achieve personal and career goals 1.3 Showing confidence, and resilience in the face of setbacks and frustrations and other negative emotions and unpleasant situations in the workplace

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Develop reflective practice	2.1 Personal strengths and achievements, based on self-assessment strategies and teacher feedback are contemplated 2.2 Progress when seeking and responding to feedback from teachers to assist them in consolidating strengths, addressing weaknesses and fulfilling their potential are monitored 2.3 Outcomes of personal and academic challenges by reflecting on previous problem solving and decision making strategies and feedback from peers and teachers are predicted	2.1 Basic SWOT analysis 2.2 Strategies to improve one's attitude in the workplace 2.3 Gibbs' Reflective Cycle/Model (Description, Feelings, Evaluation, Analysis, Conclusion, and Action plan)	2.1 Using the basic SWOT analysis as self-assessment strategy 2.2 Developing reflective practice through realization of limitations, likes/dislikes; through showing of self-confidence 2.3 Demonstrating self-acceptance and being able to accept challenges
3. Boost self-confidence and develop self-regulation	3.1 Efforts for continuous self-improvement are demonstrated 3.2 Counter-productive tendencies at work are eliminated 3.3 Positive outlook in life are maintained.	3.1 Four components of self-regulation based on Self-Regulation Theory (SRT) 3.2 Personality development concepts 3.3 Self-help concepts (e. g., 7 Habits by Stephen Covey, transactional analysis, psycho-spiritual concepts)	3.1 Performing effective communication skills – reading, writing, conversing skills 3.2 Showing affective skills – flexibility, adaptability, etc. 3.3 Self-assessment for determining one's strengths and weaknesses

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Self-management strategies	May include: 1.1 Seeking assistance in the form of job coaching or mentoring 1.2 Continuing dialogue to tackle workplace grievances 1.3 Collective negotiation/bargaining for better working conditions 1.4 Share your goals to improve with a trusted co-worker or supervisor 1.5 Make a negativity log of every instance when you catch yourself complaining to others 1.6 Make lists and schedules for necessary activities
2. Unpleasant situation	May include: 2.1 Job burn-out 2.2 Drug dependence 2.3 Sulking

## EVIDENCE GUIDE

1. Critical aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1 Express emotions appropriately 1.2 Work independently and show initiative 1.3 Consistently demonstrate self-confidence and self-discipline
2. Resource Implications	<b>The following resources should be provided:</b> 2.1. Access to workplace and resource s 2.2. Case studies
3. Methods of Assessment	<b>Competency in this unit may be assessed through:</b> 3.1. Demonstration or simulation with oral questioning 3.2. Case problems involving work improvement and sustainability issues 3.3. Third-party report
4. Context for Assessment	4.1. Competency assessment may occur in workplace or any appropriately simulated environment

**UNIT OF COMPETENCY : CONTRIBUTE TO WORKPLACE INNOVATION**

**UNIT CODE : 400311214**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and Attitudes required to make a pro-active and positive contribution to workplace innovation.

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Identify opportunities to do things better	1.1 <b>Opportunities for improvement</b> are identified proactively in own area of work. 1.2 <b>Information</b> are gathered and reviewed which may be relevant to ideas and which might assist in gaining support for idea.	1.1 Roles of individuals in suggesting and making improvements. 1.2 Positive impacts and challenges in innovation. 1.3 Types of changes and responsibility. 1.4 Seven habits of highly effective people.	1.1 Identifying opportunities to improve and to do things better. Involvement. 1.2 Identifying the positive impacts and the challenges of change and innovation. 1.3 Identifying examples of the types of changes that are within and outside own scope of responsibility
2. Discuss and develop ideas with others	2.1 <b>People who could provide input</b> to ideas for improvements are identified. 2.2 Ways of approaching people to begin sharing ideas are selected. 2.3 Meeting is set with relevant people. 2.4 Ideas for follow up are review and selected based on feedback. 2.5 <b>Critical inquiry method</b> is used to discuss and develop ideas with others.	2.1 Roles of individuals in suggesting and making improvements. 2.2 Positive impacts and challenges in innovation. 2.3 Types of changes and responsibility. 2.4 Seven habits of highly effective people.	2.1 Identifying opportunities to improve and to do things better. Involvement. 2.2 Identifying the positive impacts and the challenges of change and innovation. 2.3 Providing examples of the types of changes that are within and outside own scope of responsibility 2.4 Communicating ideas for change through small group discussions and meetings.

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Integrate ideas for change in the workplace	<p>3.1 Critical inquiry method is used to integrate different ideas for change of key people.</p> <p>3.2 Summarizing, analyzing and generalizing skills are used to extract salient points in the pool of ideas.</p> <p>3.3 <b>Reporting skills</b> are likewise used to communicate results.</p> <p>3.4 <b>Current Issues and concerns</b> on the systems, processes and procedures, as well as the need for simple innovative practices are identified.</p>	<p>3.1 Roles of individuals in suggesting and making improvements.</p> <p>3.2 Positive impacts and challenges in innovation.</p> <p>3.3 Types of changes and responsibility.</p> <p>3.4 Seven habits of highly effective people.</p> <p>3.5 Basic research skills.</p>	<p>3.1 Identifying opportunities to improve and to do things better. Involvement.</p> <p>3.2 Identifying the positive impacts and the challenges of change and innovation.</p> <p>3.3 Providing examples of the types of changes that are within and outside own scope of responsibility.</p> <p>3.4 Communicating ideas for change through small group discussions and meetings.</p> <p>3.5 Demonstrating skills in analysis and interpretation of data.</p>

## RANGE OF VARIABLES

VARIABLES	RANGE
1. Opportunities for improvement	May include: 1.1 Systems. 1.2 Processes. 1.3 Procedures. 1.4 Protocols. 1.5 Codes. 1.6 Practices.
2. Information	May include: 2.1 Workplace communication problems. 2.2 Performance evaluation results. 2.3 Team dynamics issues and concerns. 2.4 Challenges on return of investment 2.5 New tools, processes and procedures. 2.6 New people in the organization.
3. People who could provide input	May include: 3.1 Leaders. 3.2 Managers. 3.3 Specialists. 3.4 Associates. 3.5 Researchers. 3.6 Supervisors. 3.7 Staff. 3.8 Consultants (external) 3.9 People outside the organization in the same field or similar expertise/industry. 3.10 Clients
4. Critical inquiry method	May include: 4.1 Preparation. 4.2 Discussion. 4.3 Clarification of goals. 4.4 Negotiate towards a Win-Win outcome. 4.5 Agreement. 4.6 Implementation of a course of action. 4.7 Effective verbal communication. See our pages: Verbal Communication and Effective Speaking. 4.8 Listening. 4.9 Reducing misunderstandings is a key part of effective negotiation. 4.10 Rapport Building. 4.11 Problem Solving. 4.12 Decision Making. 4.13 Assertiveness. 4.14 Dealing with Difficult Situations.

5. Reporting skills	May include: 5.1 Data management. 5.2 Coding. 5.3 Data analysis and interpretation. 5.4 Coherent writing. 5.5 Speaking.
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## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Identified opportunities to do things better.</li> <li>1.2 Discussed and developed ideas with others on how to contribute to workplace innovation.</li> <li>1.3 Integrated ideas for change in the workplace.</li> <li>1.4 Analyzed and reported rooms for innovation and learning in the workplace.</li> </ul>
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2.1 Pens, papers and writing implements.</li> <li>2.2 Cartolina.</li> <li>2.3 Manila papers.</li> </ul>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> <li>3.1 Psychological and behavioral Interviews.</li> <li>3.2 Performance Evaluation.</li> <li>3.3 Life Narrative Inquiry.</li> <li>3.4 Review of portfolios of evidence and third-party workplace reports of on-the-job performance.</li> <li>3.5 Sensitivity analysis.</li> <li>3.6 Organizational analysis.</li> <li>3.7 Standardized assessment of character strengths and virtues applied.</li> </ul>
<p>4. Context for Assessment</p>	<ul style="list-style-type: none"> <li>4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions.</li> </ul>

**UNIT OF COMPETENCY : PRESENT RELEVANT INFORMATION**

**UNIT CODE : 400311215**

**UNIT DESCRIPTOR :** This unit of covers the knowledge, skills and attitudes required to present data/information appropriately.

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Gather data/information	1.1 Evidence, facts and information are collected 1.2 Evaluation, terms of reference and conditions are reviewed to determine whether data/information falls within project scope	1.1 Organisational protocols 1.2 Confidentiality 1.3 Accuracy 1.4 Business mathematics and statistics 1.5 Data analysis techniques/procedures 1.6 Reporting requirements to a range of audiences 1.7 Legislation, policy and procedures relating to the conduct of evaluations 1.8 Organisational values, ethics and codes of conduct	1.1 Describing organisational protocols relating to client liaison 1.2 Protecting confidentiality 1.3 Describing accuracy 1.4 Computing business mathematics and statistics 1.5 Describing data analysis techniques/procedures 1.6 Reporting requirements to a range of audiences 1.7 Stating legislation, policy and procedures relating to the conduct of evaluations 1.8 Stating organisational values, ethics and codes of conduct
2. Assess gathered data/information	2.1 Validity of data/information is assessed 2.2 Analysis techniques are applied to assess data/information. 2.3 Trends and anomalies are identified 2.4 <b>Data analysis</b>	2.1 Business mathematics and statistics 2.2 Data analysis techniques/procedures 2.3 Reporting requirements to a range of audiences 2.4 Legislation, policy and procedures	2.1 Computing business mathematics and statistics 2.2 Describing data analysis techniques/procedures 2.3 Reporting requirements to a range of

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
	<p><i>techniques</i> and procedures are documented</p> <p>2.5 Recommendations are made on areas of possible improvement.</p>	<p>relating to the conduct of evaluations</p> <p>2.5 Organisational values, ethics and codes of conduct</p>	<p>audiences</p> <p>2.4 Stating legislation, policy and procedures relating to the conduct of evaluations</p> <p>2.5 Stating organisational values, ethics and codes of conduct</p>
3. Record and present information	<p>3.1 Studied data/information are recorded.</p> <p>3.2 Recommendations are analysed for action to ensure they are compatible with the project's scope and terms of reference.</p> <p>3.3 Interim and final reports are analysed and outcomes are compared to the criteria established at the outset.</p> <p>3.4 Findings are presented to stakeholders.</p>	<p>3.1 Data analysis techniques/procedures</p> <p>3.2 Reporting requirements to a range of audiences</p> <p>3.3 Legislation, policy and procedures relating to the conduct of evaluations</p> <p>3.4 Organisational values, ethics and codes of conduct</p>	<p>3.1 Describing data analysis techniques/procedures</p> <p>3.2 Reporting requirements to a range of audiences</p> <p>3.3 Stating legislation, policy and procedures relating to the conduct of evaluations</p> <p>3.4 Stating organisational values, ethics and codes of conduct practices</p>

## RANGE OF VARIABLES

VARIABLES	RANGE
1. Data analysis techniques	May include: 1.1. Domain analysis 1.2. Content analysis 1.3. Comparison technique

## EVIDENCE GUIDE

1. Critical aspects of Competency	<p><b>Assessment requires evidence that the candidate:</b></p> <p>1.1 Determine data / information            1.2 Studied and applied gathered data/information            1.3 Recorded and studied studied data/information</p> <p>These aspects may be best assessed using a range of scenarios what ifs as a stimulus with a walk through forming part of the response. These assessment activities should include a range of problems, including new, unusual and improbable situations that may have happened.</p>
2. Resource Implications	<p><b>Specific resources for assessment</b></p> <p>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><b>Competency in this unit may be assessed through:</b></p> <p>3.1. Written Test            3.2. Interview            3.3. Portfolio</p> <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	<p>4.1. In all workplace, it may be appropriate to assess this unit concurrently with relevant teamwork or operation units.</p>

**UNIT OF COMPETENCY : PRACTICE OCCUPATIONAL SAFETY AND HEALTH POLICIES AND PROCEDURES**

**UNIT CODE : 400311216**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes required to identify OSH compliance requirements, prepare OSH requirements for compliance, perform tasks in accordance with relevant OSH policies and procedures

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Identify OSH compliance requirements	1.1 Relevant <b>OSH requirements, regulations, policies and procedures</b> are identified in accordance with workplace policies and procedures 1.2 OSH activity non-conformities are conveyed to <b>appropriate personnel</b> 1.3 <b>OSH preventive and control requirements</b> are identified in accordance with OSH work policies and procedures	1.1. OSH preventive and control requirements 1.2. Hierarchy of Controls 1.3. Hazard Prevention and Control 1.4. General OSH principles 1.5. Work standards and procedures 1.6. Safe handling procedures of tools, equipment and materials 1.7. Standard emergency plan and procedures in the workplace	1.1. Communication skills 1.2. Interpersonal skills 1.3. Critical thinking skills 1.4. Observation skills

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Prepare OSH requirements for compliance	2.1 OSH work activity material, tools and equipment requirements are identified in accordance with workplace policies and procedures 2.2. Required OSH materials, tools and equipment are acquired in accordance with workplace policies and procedures 2.3. Required OSH materials, tools and equipment are arranged/ placed in accordance with OSH work standards	2.1. Resources necessary to execute hierarchy of controls 2.2. General OSH principles 2.3. Work standards and procedures 2.4. Safe handling procedures of tools, equipment and materials 2.5. Different OSH control measures	2.1. Communication skills 2.2. Estimation skills 2.3. Interpersonal skills 2.4. Critical thinking skills 2.5. Observation skills 2.6. Material, tool and equipment identification skills
3. Perform tasks in accordance with relevant OSH policies and procedures	3.1 Relevant OSH work procedures are identified in accordance with workplace policies and procedures 3.2 Work Activities are executed in accordance with OSH work standards 3.3 <b>Non-compliance work activities</b> are reported to <i>appropriate personnel</i>	3.1. OSH work standards 3.2. Industry related work activities 3.3. General OSH principles 3.4. OSH Violations Non-compliance work activities	3.1 Communication skills 3.3 Interpersonal skills 3.4 Troubleshooting skills 3.5 Critical thinking skills 3.6 Observation skills

## RANGE OF VARIABLES

VARIABLE	RANGE
1. OSH Requirements, Regulations, Policies and Procedures	May include: <ul style="list-style-type: none"> <li>1.1 Clean Air Act</li> <li>1.2 Building code</li> <li>1.3 National Electrical and Fire Safety Codes</li> <li>1.4 Waste management statutes and rules</li> <li>1.5 Permit to Operate</li> <li>1.6 Philippine Occupational Safety and Health Standards</li> <li>1.7 Department Order No. 13 (Construction Safety and Health)</li> <li>1.8 ECC regulations</li> </ul>
2. Appropriate Personnel	May include: <ul style="list-style-type: none"> <li>2.1 Manager</li> <li>2.2 Safety Officer</li> <li>2.3 EHS Offices</li> <li>2.4 Supervisors</li> <li>2.5 Team Leaders</li> <li>2.6 Administrators</li> <li>2.7 Stakeholders</li> <li>2.8 Government Official</li> <li>2.9 Key Personnel</li> <li>2.10 Specialists</li> <li>2.11 Himself</li> </ul>
3. OSH Preventive and Control Requirements	May include: <ul style="list-style-type: none"> <li>3.1 Resources needed for removing hazard effectively</li> <li>3.2 Resources needed for substitution or replacement</li> <li>3.3 Resources needed to establishing engineering controls</li> <li>3.4 Resources needed for enforcing administrative controls</li> <li>3.5 Personal Protective equipment</li> </ul>
4. Non OSH-Compliance Work Activities	May include non-compliance or observance of the following safety measures: <ul style="list-style-type: none"> <li>4.1 Violations that may lead to serious physical harm or death</li> <li>4.2 Fall Protection</li> <li>4.3 Hazard Communication</li> <li>4.4 Respiratory Protection</li> <li>4.5 Power Industrial Trucks</li> <li>4.6 Lockout/Tag-out</li> <li>4.7 Working at heights (use of ladder, scaffolding)</li> <li>4.8 Electrical Wiring Methods</li> <li>4.9 Machine Guarding</li> </ul>

	4.10 Electrical General Requirements 4.11 Asbestos work requirements 4.12 Excavations work requirements
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## EVIDENCE GUIDE

1. Critical aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1. Convey OSH work non-conformities to appropriate personnel 1.2. Identify OSH preventive and control requirements in accordance with OSH work policies and procedures 1.3. Identify OSH work activity material, tools and equipment requirements in accordance with workplace policies and procedures 1.4. Arrange/Place required OSH materials, tools and equipment in accordance with OSH work standards 1.5. Execute work activities in accordance with OSH work standards 1.6. Report OSH activity non-compliance work activities to appropriate personnel
2. Resource Implications	<b>The following resources should be provided:</b> 2.1 Facilities, materials tools and equipment necessary for the activity
3. Methods of Assessment	<b>Competency in this unit may be assessed through:</b> 3.1 Observation/Demonstration with oral questioning 3.2 Third party report
4. Context for Assessment	4.1 Competency may be assessed in the work place or in a simulated work place setting

**UNIT OF COMPETENCY** : **EXERCISE EFFICIENT AND EFFECTIVE SUSTAINABLE PRACTICES IN THE WORKPLACE**

**UNIT CODE** : **400311217**

**UNIT DESCRIPTOR** : This unit covers knowledge, skills and attitude to identify the efficiency and effectiveness of resource utilization, determine causes of inefficiency and/or ineffectiveness of resource utilization and Convey inefficient and ineffective environmental practices

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Identify the efficiency and effectiveness of resource utilization	1.1 Required resource utilization in the workplace is measured using appropriate techniques 1.2 Data are recorded in accordance with workplace protocol 1.3 Recorded data are compared to determine the efficiency and effectiveness of resource utilization according to established <b><i>environmental work procedures</i></b>	1.1. Importance of Environmental Literacy 1.2. Environmental Work Procedures 1.3. Waste Minimization 1.4. Efficient Energy Consumptions	1.1 Recording Skills 1.2 Writing Skills 1.3 Innovation Skills
2. Determine causes of inefficiency and/or ineffectiveness of resource utilization	2.1 Potential causes of inefficiency and/or ineffectiveness are listed 2.2 Causes of inefficiency and/or ineffectiveness are identified through deductive reasoning 2.3 Identified causes of inefficiency and/or ineffectiveness are validated thru established environmental procedures	2.1 Causes of environmental inefficiencies and ineffectiveness	2.1 Deductive Reasoning Skills 2.2 Critical thinking 2.3 Problem Solving 2.4 Observation Skills

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Convey inefficient and ineffective environmental practices	3.1 Efficiency and effectiveness of resource utilization are reported to <i>appropriate personnel</i> 3.2 Concerns related resource utilization are discussed with appropriate personnel 3.3 Feedback on information/ concerns raised are clarified with appropriate personnel	3.1 Appropriate Personnel to address the environmental hazards 3.2 Environmental corrective actions	3.1 Written and Oral Communication Skills 3.2 Critical thinking 3.3 Problem Solving 3.4 Observation Skills 3.5 Practice Environmental Awareness

### RANGE OF VARIABLES

<b>VARIABLE</b>	<b>RANGE</b>
1. Environmental Work Procedures	May include: 1.1 Utilization of Energy, Water, Fuel Procedures 1.2 Waster Segregation Procedures 1.3 Waste Disposal and Reuse Procedures 1.4 Waste Collection Procedures 1.5 Usage of Hazardous Materials Procedures 1.6 Chemical Application Procedures 1.7 Labeling Procedures
2. Appropriate Personnel	May include: 2.1 Manager 2.2 Safety Officer 2.3 EHS Offices 2.4 Supervisors 2.5 Team Leaders 2.6 Administrators 2.7 Stakeholders 2.8 Government Official 2.9 Key Personnel 2.10 Specialists 2.11 Himself

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1. Measured required resource utilization in the workplace using appropriate techniques</li> <li>1.2. Recorded data in accordance with workplace protocol</li> <li>1.3. Identified causes of inefficiency and/or ineffectiveness through deductive reasoning</li> <li>1.4. Validate the identified causes of inefficiency and/or ineffectiveness thru established environmental procedures</li> <li>1.5. Report efficiency and effectiveness of resource utilization to appropriate personnel</li> <li>1.6. Clarify feedback on information/concerns raised with appropriate personnel</li> </ul>
<p>2. Resource Implications</p>	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>2.1 Workplace</li> <li>2.2 Tools, materials and equipment relevant to the tasks</li> <li>2.3 PPE</li> <li>2.4 Manuals and references</li> </ul>
<p>3. Methods of Assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Demonstration</li> <li>3.2 Oral questioning</li> <li>3.3 Written examination</li> </ul>
<p>4. Context for Assessment</p>	<ul style="list-style-type: none"> <li>4.1 Competency assessment may occur in workplace or any appropriately simulated environment</li> <li>4.2 Assessment shall be observed while task are being undertaken whether individually or in-group</li> </ul>

**UNIT OF COMPETENCY : PRACTICE ENTREPRENEURIAL SKILLS IN THE WORKPLACE**

**UNIT CODE : 400311218**

**UNIT DESCRIPTOR : This unit covers the outcomes required to apply entrepreneurial workplace best practices and implement cost-effective operations**

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Apply entrepreneurial workplace best practices	1.1 <b>Good practices</b> relating to workplace operations are observed and selected following workplace policy. 1.2 Quality procedures and practices are complied with according to workplace requirements. 1.3 Cost-conscious habits in <b>resource utilization</b> are applied based on industry standards.	1.1 Workplace best practices, policies and criteria 1.2 Resource utilization 1.3 Ways in fostering entrepreneurial attitudes: - Patience - Honesty - Quality-consciousness - Safety-consciousness - Resourcefulness	1.1 Communication skills 1.2 Complying with quality procedures
2. Communicate entrepreneurial workplace best practices	2.1 Observed Good practices relating to workplace operations are communicated to <b>appropriate person</b> . 2.2 Observed quality procedures and practices are communicated to appropriate person 2.3 Cost-conscious habits in <b>resource utilization</b> are communicated based on industry standards.	2.1 Workplace best practices, policies and criteria 2.2 Resource utilization 2.3 Ways in fostering entrepreneurial attitudes: - Patience - Honesty - Quality-consciousness - Safety-consciousness - Resourcefulness	2.1 Communication skills 2.2 Complying with quality procedures 2.3 Following workplace communication protocol

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Implement cost-effective operations	3.1 Preservation and optimization of workplace resources is implemented in accordance with enterprise policy 3.2 Judicious use of workplace tools, equipment and materials are observed according to manual and work requirements. 3.3 Constructive contributions to office operations are made according to enterprise requirements. 3.4 Ability to work within one's allotted time and finances is sustained.	3.1 Optimization of workplace resources 3.2 5S procedures and concepts 3.3 Criteria for cost-effectiveness 3.4 Workplace productivity 3.5 Impact of entrepreneurial mindset to workplace productivity 3.6 Ways in fostering entrepreneurial attitudes: - Quality-consciousness - Safety-consciousness	3.1 Implementing preservation and optimizing workplace resources 3.2 Observing judicious use of workplace tools, equipment and materials 3.3 Making constructive contributions to office operations 3.4 Sustaining ability to work within allotted time and finances

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Good practices	May include: 1.1 Economy in use of resources 1.2 Documentation of quality practices
2. Resources utilization	May include: 2.1 Consumption/ use of consumables 2.2 Use/Maintenance of assigned equipment and furniture 2.3 Optimum use of allotted /available time

## EVIDENCE GUIDE

1. Critical aspects of competency	<p><b>Assessment requires evidence that the candidate:</b></p> <p>1.1 Demonstrated ability to identify and sustain cost-effective activities in the workplace</p> <p>1.2 Demonstrated ability to practice entrepreneurial knowledge, skills and attitudes in the workplace.</p>
2. Resource Implications	<p>The following resources should be provided:</p> <p>2.1 Simulated or actual workplace</p> <p>2.2 Tools, materials and supplies needed to demonstrate the required tasks</p> <p>2.3 References and manuals</p> <p>2.3.1 Enterprise procedures manuals</p> <p>2.3.2 Company quality policy</p>
3. Methods of Assessment	<p><b>Competency in this unit should be assessed through:</b></p> <p>3.1 Interview</p> <p>3.2 Third-party report</p>
4. Context of Assessment	<p>4.1 Competency may be assessed in workplace or in a simulated workplace setting</p> <p>4.2 Assessment shall be observed while tasks are being undertaken whether individually or in-group</p>

## 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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variable</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Identify materials	1.1 Materials are identified as per job requirements 1.2 Quantity and <b><i>description of materials and tools</i></b> 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 Carpentry tools and accessories	1.1 Identifying tools and accessories according to the job requirements
2. Prepare requisition of materials	2.1 <b><i>Materials and tools</i></b> needed are requested according to the identified requirements 2.2 Request is done as per <b><i>company standard operating procedures (SOP)</i></b> 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 Carpentry 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: 1.1 Brand name 1.2 Size 1.3 Capacity 1.4 Kind of application
2. Tools and accessories	May include: 2.1 Electrical supplies 2.2 Mechanical supplies 2.3 Cleaning supplies
3. Company standard operating procedures	May include: 3.1 Job order 3.2 Requisition slip 3.3 Borrower slip

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Listed materials and tools according to quantity and job requirements</li> <li>1.2 Requested materials and tools according to the list prepared and as per company SOP</li> <li>1.3 Inspected issued materials and tools as per quantity and job specifications</li> <li>1.4 Provided tools with safety devices</li> </ul>
<p>2. Resource Implications</p>	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>2.1 Workplace location</li> <li>2.2 Materials relevant to the unit of competency</li> <li>2.3 Plans, drawings and specifications relevant to the activities</li> </ul>
<p>3. Methods of Assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Direct observation/Demonstration with oral questioning</li> </ul>
<p>4. Context of Assessment</p>	<ul style="list-style-type: none"> <li>4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center</li> </ul>

**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.

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

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Apply information in manual	3.1 <b>Manual</b> 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 carpentry 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 carpentry 4.2 Manual storing and maintaining procedures	1.1 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	<b>Assessment requires that the candidate:</b> 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	<b>The following resources should be provided:</b> 2.1 All manuals/catalogues relative to construction sector
3. Methods of assessment	<b>Competency in this unit may be assessed through:</b> 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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variable</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Select measuring instruments	1.1 Object or component to be measured is identified, classified and interpreted according to the appropriate regular <b><i>geometric shape</i></b> 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

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variable</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Carry out measurements and calculations	2.1 <b>Measurements</b> are obtained according to job requirements 2.2 Alternative measuring tools are used without sacrificing cost and quality of work 2.3 <b>Calculations</b> 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><b>Assessment requires that the candidate:</b></p> <p>5.1 Selected and prepared appropriate measuring instruments in accordance with job requirements</p> <p>5.2 Performed measurements and calculations according to job requirements/ ISO</p>
2. Resource implications	<p><b>The following resources should be provided:</b></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><b>Competency in this unit may be assessed through:</b></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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Check condition of tools and equipment	1.1 <b>Materials, tools and equipment</b> 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 <b>Personal Protective Equipment (PPE)</b> 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

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

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Store tools and equipment	2.3 Inventory of tools, instruments and equipment are conducted and recorded as per company practices 2.4 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><b>Assessment requires that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Selected and used appropriate processes, tools and equipment to carry out task</li> <li>1.2 Identified functional and non-functional tools and equipment</li> <li>1.3 Checked, lubricated and calibrated tools, equipment and instruments according to manufacturer’s specifications</li> <li>1.4 Replaced defective tools, equipment and their accessories</li> <li>1.5 Observed and applied safe handling of tools and equipment and safety work practices</li> <li>1.6 Prepared and submitted inventory report, where applicable</li> <li>1.7 Maintained workplace in accordance with OSHA regulations</li> <li>1.8 Stored tools and equipment safely in appropriate locations and in accordance with company practices</li> </ul>
<p>2. Resource implications</p>	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>2.1 Workplace</li> <li>2.2 Maintenance schedule</li> <li>2.3 Maintenance materials, tools and equipment relevant to the proposed activity/task</li> </ul>
<p>3. Methods of assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Direct observation/Demonstration with Oral Questioning</li> <li>3.2 Written Examination</li> </ul>
<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** : **LAY OUT REFERENCE LINES**

**UNIT CODE** : **CON711301**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills and attitude for establishing reference lines in preparation for layout.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Prepare materials and tools	1.1 <b>Personal protective equipment (PPE)</b> is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 List of materials and tools are secured and followed according to <b>job requirements</b> 1.3 <b>Materials and tools</b> are selected, inspected and prepared consistent with 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 (3R, 5S) 1.3 Safe handling and standard specification of materials and tools 1.4 Signs and symbols 1.5 Company rules and regulations 1.6 Basic surveying 1.7 Factors affecting productivity 1.8 Productivity work measurements 1.9 Ways of improving productivity 1.10 Adherence to work requirements	1.1 Organizing materials to be used 1.2 Handling and use of materials and tools 1.3 Using PPE 1.4 Communicating effectively 1.5 Following company rules and regulations 1.6 Implementing 3R and 5S

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Locate the offset line established by the line and grade/surveyor	2.1 Related <b>sketches and working drawings</b> are followed according to job requirements 2.2 Offset line/ building line is located and verified. 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	2.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 2.2 Signs and symbols 2.3 Company rules and regulations 2.4 Methods and techniques in measurements 2.5 Understanding instructions 2.6 Green Building Concept relative to Construction (5S) 2.7 Basic surveying 2.8 Factors affecting productivity 2.9 Productivity work measurements 2.10 Ways of improving productivity 2.11 Adherence to work requirements	2.1 Applying mensurations 2.2 Applying productive methods and techniques 2.3 Using PPE 2.4 Communicating effectively 2.5 Following company rules and regulations 2.6 Implementing 5S

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Establish the required reference lines	<p>3.1 Initial lines are marked from offset lines in accordance with working drawings.</p> <p>3.2 Final <b>reference lines</b> are marked, squared and plumbed in accordance with working drawings.</p> <p>3.3 <b>Subsequent markings</b> are done as required.</p> <p>3.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>3.5 Required output is completed as specified by the immediate supervisor based on work</p>	<p>3.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>3.2 Signs and symbols</p> <p>3.3 Company rules and regulations</p> <p>3.4 Methods and techniques in measurements</p> <p>3.5 Understanding instructions</p> <p>3.6 Green Building Concept relative to Construction (3R, 5S)</p> <p>3.7 Factors affecting productivity</p> <p>3.8 Productivity work measurements</p> <p>3.9 Ways of improving productivity</p> <p>3.10 Adherence to work requirements</p>	<p>3.1 Applying mensuration</p> <p>3.2 Applying productive methods and techniques</p> <p>3.3 Using PPE</p> <p>3.4 Communicating effectively</p> <p>3.5 Following company rules and regulations</p> <p>3.6 Following instructions</p> <p>3.7 Implementing 3R and 5S</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes 1.3 Gloves 1.4 Proper uniform/clothing 1.5 Goggles 1.6 Vest 1.7 Mask
2. Materials and tools	May include: 2.1 Lumber 2.2 Nails 2.3 G.I. Wires 2.4 Chalk line box 2.5 Pen Marker/ Pencil/Chalk stone 2.6 Claw hammer 2.7 Sledge hammer 2.8 Level hose/ level bar 2.9 Pull push rule/ steel tape/ laser meter 2.10 Nylon string 2.11 Plumb bob 2.12 Steel square 2.13 Carpenter's square 2.14 Laser level
3. Sketches and working drawings	May include: 3.1 Exact location 3.2 Dimensions 3.3 Elevations
4. Reference lines	May include: 4.1 Finished floor lines 4.2 Wall lines 4.3 Ceiling lines 4.4 Fascia/Eave lines
5. Subsequent markings	May include: 5.1 Openings 5.2 Embedment

## EVIDENCE GUIDE

<p>1. Critical aspects of competency</p>	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Prepared materials and tools consistent with job requirements</li> <li>1.2 Located the offset line established by the line and grade/surveyor</li> <li>1.3 Established the required reference line based on approved tolerances</li> <li>1.4 Observed and complied with safety and environmental regulations</li> <li>1.5 Communicated with others to ensure effective work operation</li> <li>1.6 Observed and complied with the productivity requirements.</li> <li>1.7 Complied with attitudinal work requirements</li> </ul>
<p>2. Resource implications</p>	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>2.1 Actual or simulated workplace</li> <li>2.2 Tools, materials and equipment needed to perform the required tasks</li> <li>2.3 References and manuals</li> <li>2.4 PPE</li> <li>2.5 First Aid Kit</li> </ul>
<p>3. Method of assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Demonstration/Observation with Oral Questioning</li> </ul>
<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** : **FABRICATE, INSTALL AND REMOVE WOODEN FORMWORKS**

**UNIT CODE** : **CON711302**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills, and attitudes to fabricate, install and remove wooden formworks.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Prepare materials, tools and equipment	1.1 <b>Personal protective equipment (PPE)</b> is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 List of materials, hand tools and equipment are secured and followed according to job requirements 1.3 <b>Materials, tools and equipment</b> are selected, inspected and prepared consistent with 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 Safe handling and standard specification of materials, tools and equipment 1.3 Markings and labels 1.4 Company rules and regulations 1.5 Mensuration 1.6 Green Building Concept relative to Construction (3R, 5S) 1.7 Economic use of material 1.8 Safe and effective use of hand tools 1.9 Factors affecting productivity 1.10 Productivity work measurements 1.11 Ways of improving productivity 1.12 Adherence to work requirements	4.2 Using PPE 4.3 Communicating effectively 4.4 Following company rules and regulations 4.5 Organizing materials to be used 4.6 Handling and use of materials, tools and equipment 4.7 Applying mensuration 4.8 Implementing 3R and 5S

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Lay-out and cut dimension of form sheathing and stiffeners	2.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 2.2 Form sheathing and stiffeners are measured and marked according to job specifications. 2.3 Form sheathing and stiffeners are laid out and cut according to required dimensions. 2.4 Work area is cleaned according to safety and environmental regulations 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 Safe handling and standard specification of materials, tools and equipment 2.3 Markings and labels 2.4 Company rules and regulations 2.5 Mensuration 2.6 Green Building Concept relative to Construction (3R, 5S) 2.7 Factors affecting productivity 2.8 Productivity work measurements 2.9 Ways of improving productivity 2.10 Adherence to work requirements	2.1 Using PPE 2.2 Communicating effectively 2.3 Following company rules and regulations 2.4 Organizing materials to be used 2.5 Handling and use of materials, tools and equipment 2.6 Applying mensuration 2.7 Implementing 3R and 5S

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Assemble and erect form panels and components	<p>3.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>3.2 Sheatings are positioned and fixed to stiffeners</p> <p>3.3 Assembled form panels are checked for squareness, levelness, plumbness and alignment.</p> <p>3.4 Primary and secondary supports are positioned and fixed to hold assembled form panels as per drawings.</p> <p>3.5 Assembled form panels are checked for compliance with job requirements.</p> <p>3.6 Work area is cleaned according to safety and environmental regulations</p> <p>3.7 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>3.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>3.2 Safe handling and standard specification of materials, tools and equipment</p> <p>3.3 Markings and labels</p> <p>3.4 Company rules and regulations</p> <p>3.5 Mensuration</p> <p>3.6 Green Building Concept relative to Construction (3R, 5S)</p> <p>3.7 Assembly and erection procedures</p> <p>3.8 Factors affecting productivity</p> <p>3.9 Productivity work measurements</p> <p>3.10 Ways of improving productivity</p>	<p>3.1 Using PPE</p> <p>3.2 Communicating effectively</p> <p>3.3 Following company rules and regulations</p> <p>3.4 Organizing materials to be used</p> <p>3.5 Handling and use of materials, tools and equipment</p> <p>3.6 Applying mensuration</p> <p>3.7 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
4. Erect wooden scaffolds	<p>4.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>4.2 Soleplates/ timber planks are prepared, placed and spaced accordingly considering <b>ground surface conditions</b> based on design requirements</p> <p>4.3 <b>Wooden scaffold components</b> are erected, plumbed and leveled based on design requirements</p> <p>4.4 Wooden scaffolds systems are checked based on design requirements</p> <p>4.5 Lifeline for fall protection devices (harness) are installed in accordance with job specification and OSHS requirements.</p> <p>4.6 Work area is cleaned according to safety and environmental regulations</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 Working at heights procedures</p> <p>4.3 Safe handling and standard specification of materials, tools and equipment</p> <p>4.4 Markings and labels</p> <p>4.5 Company rules and regulations</p> <p>4.6 Mensuration</p> <p>4.7 Green Building Concept relative to Construction (3R, 5S)</p> <p>4.8 Assembly and erection procedures</p> <p>4.9 Factors affecting productivity</p> <p>4.10 Productivity work measurements</p> <p>4.11 Ways of improving productivity</p>	<p>5.1 Using PPE</p> <p>5.2 Communicating effectively</p> <p>5.3 Following company rules and regulations</p> <p>5.4 Organizing materials to be used</p> <p>5.5 Handling and use of materials, tools and equipment</p> <p>5.6 Applying mensuration</p> <p>5.7 Complying requirements of the erection procedure</p> <p>5.8 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
5. Strip form panels and dismantle scaffold	<p>5.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>5.2 Tools, equipment and staging area are prepared</p> <p>5.3 Bracing, supports and form panels are removed as scheduled accordingly</p> <p>5.4 Shores and scaffolds are removed according to schedule</p> <p>5.5 Panels and other components are sorted, clean and stored for the next re-use</p> <p>5.6 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</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 Working at heights procedures</p> <p>5.3 Safe handling and standard specification of materials, tools and equipment</p> <p>5.4 Markings and labels</p> <p>5.5 Company rules and regulations</p> <p>5.6 Green Building Concept relative to Construction (3R, 5S)</p> <p>5.7 Stripping and dismantling schedule</p> <p>5.8 Stripping and dismantling procedures</p> <p>5.9 Factors affecting productivity</p> <p>5.10 Productivity work measurements</p>	<p>5.1 Using PPE</p> <p>5.2 Communicating effectively</p> <p>5.3 Following company rules and regulations</p> <p>5.4 Organizing materials to be used</p> <p>5.5 Handling and use of materials, tools and equipment</p> <p>5.6 Complying requirements in stripping and dismantling</p> <p>5.7 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
6. Clean and store reusable form panels and components	<p>6.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>6.2 Materials such as scaffolding and formworks are recovered and stockpiled according to company rules and procedures</p> <p>6.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>6.4 Tools, equipment and other materials are cleaned after use.</p> <p>6.5 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 Safe handling and standard specification of materials, tools and equipment</p> <p>6.3 Green Building Concept relative to Construction (3R, 5S)</p> <p>6.4 Safety signs and symbols</p> <p>6.5 Adherence to work requirements</p>	<p>6.1 Working safely</p> <p>6.2 Organizing materials to be stored</p> <p>6.3 Handling and use of materials, tools and equipment</p> <p>6.4 Communicating effectively</p> <p>6.5 Using PPE</p> <p>6.6 Implementing 3R and 5S</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes 1.3 Gloves 1.4 Working clothes 1.5 Goggles 1.6 Vest 1.7 Full body harness
3. Materials, tools and equipment	May include: 3.1 Lumber 3.2 Plywood 3.3 Nails 3.4 G.I. Wires 3.5 Chalk line box 3.6 Pen Marker/ Pencil/Chalk stone 3.7 Claw hammer 3.8 Sledge hammer 3.9 Level hose/ level bar 3.10 Pull push rule/ steel tape/ laser meter 3.11 Nylon string 3.12 Plumb bob 3.13 Steel square 3.14 Carpenter's square 3.15 Lifting equipment 3.16 Crow bar 3.17 Cross-cut saw 3.18 Rip saw 3.19 Adjustable wrench
4. Job requirements	May include: 3.1 Approved working drawings 3.2 Sketches/ Shop drawings
5. Ground surface conditions	May include: 5.1 Compacted 5.2 Level 5.3 Slab on grade

6. Wooden scaffold components	May include: 6.1 Platforms 6.2 Vertical support 6.3 Shoring 6.4 Sole plates 6.5 Lateral and diagonal supports
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## EVIDENCE GUIDE

1. Critical aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1 Prepared materials, tools and equipment consistent with job requirements 1.2 Laid-out and cut dimension of form sheating and stiffeners according to required dimensions 1.3 Assembled and erected form panels and components compliance with job requirements 1.4 Erected wooden scaffolds based on design requirements 1.5 Stripped form panels and dismantled scaffold according to schedule 1.6 Cleaned and stored reusable form panels and components 1.7 Observed and complied with safety and environmental regulations 1.8 Communicated with others to ensure effective work operation 1.9 Observed and complied with the productivity requirements 1.10 Complied with attitudinal work requirements
2. Resource implications	<b>The following resources should be provided:</b> 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
3. Method of assessment	<b>Competency in this unit may be assessed through:</b> 3.1 Demonstration/Observation with Oral Questioning
4. Context for assessment	4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center

**UNIT OF COMPETENCY** : **INSTALL WOODEN DOOR JAMB, WINDOW FRAME AND PANELS**

**UNIT CODE** : **CON711303**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills, and attitudes in the installation of wooden door jamb, window frame and panels.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Prepare materials and tools	1.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 List of materials and tools are secured and followed according to job requirements 1.3 <b>Material and tools</b> are selected, inspected and prepared consistent with 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 Safe handling and standard specification of materials and tools 1.3 Markings and labels 1.4 Company rules and regulations 1.5 Mensuration 1.6 Green Building Concept relative to Construction (3R, 5S) 1.7 Safe and effective use of hand tools 1.8 Factors affecting productivity 1.9 Productivity work measurements 1.10 Ways of improving productivity 1.11 Adherence to work requirements	1.1 Using PPE 1.2 Communicating effectively 1.3 Following company rules and regulations 1.4 Organizing materials to be used 1.5 Handling and use of materials and tools 1.6 Applying mensuration 1.7 Implementing 3R and 5S

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Layout location	<p>2.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards.</p> <p>2.2 Exact location is marked for door and window opening based on working drawings</p> <p>2.3 Clearance of opening is checked based on working drawings</p> <p>2.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>2.5 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 (5S)</p> <p>2.3 Signs and symbols</p> <p>2.4 Company rules and regulations</p> <p>2.5 Methods and techniques in measurements</p> <p>2.6 Understanding instructions</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 Applying mensuration</p> <p>2.2 Applying productive methods and techniques</p> <p>2.3 Using PPE</p> <p>2.4 Communicating effectively</p> <p>2.5 Following company rules and regulations</p> <p>2.6 Following instructions</p> <p>2.7 Reading and understanding drawings</p> <p>2.8 Implementing 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Fix door jamb and panels	<p>3.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards.</p> <p>3.2 Assembled jamb and panels are selected and checked for compliance with job requirements</p> <p>3.3 Jambs are temporarily positioned to hold assembled panels as per drawings.</p> <p>3.4 Installed jamb and panels are checked for squareness, levelness, plumbness and alignment.</p> <p>3.5 <b>Jamb and panels</b> are positioned and fixed to openings</p> <p>3.6 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>3.7 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>3.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>3.2 Green Building Concept relative to Construction (3R, 5S)</p> <p>3.3 Safe handling and standard specification of materials and tools</p> <p>3.4 Markings and labels</p> <p>3.5 Company rules and regulations</p> <p>3.6 Mensuration</p> <p>3.7 Installation procedures</p> <p>3.8 Factors affecting productivity</p> <p>3.9 Productivity work measurements</p> <p>3.10 Ways of improving productivity</p>	<p>3.1 Using PPE</p> <p>3.2 Communicating effectively</p> <p>3.3 Following company rules and regulations</p> <p>3.4 Organizing materials to be used</p> <p>3.5 Handling and use of materials and tools</p> <p>3.6 Applying mensuration</p> <p>3.7 Installing hardware accessories</p> <p>3.8 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
4. Fix window frames and panels	<p>4.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards.</p> <p>4.2 Assembled window frames and panels are selected and checked for compliance with job requirements</p> <p>4.3 Window frames are positioned and panels are temporarily installed as per drawings.</p> <p>4.4 Installed window frame and panels are checked for squareness, levelness, plumbness and alignment.</p> <p>4.5 Window frames and panels are positioned and fixed to openings</p> <p>4.6 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>4.7 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 Safe handling and standard specification of materials and tools</p> <p>4.4 Markings and labels</p> <p>4.5 Company rules and regulations</p> <p>4.6 Mensuration</p> <p>4.7 Installation procedures</p> <p>4.8 Factors affecting productivity</p> <p>4.9 Productivity work measurements</p> <p>4.10 Ways of improving productivity</p>	<p>4.1 Using PPE</p> <p>4.2 Communicating effectively</p> <p>4.3 Following company rules and regulations</p> <p>4.4 Organizing materials to be used</p> <p>4.5 Handling and use of materials and tools</p> <p>4.6 Applying mensuration</p> <p>4.7 Installing hardware accessories</p> <p>4.8 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
5. Perform housekeeping	5.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards. 5.2 Excess/un-used materials are recovered and stockpiled according to company rules and procedures 5.3 Work area is cleaned according to safety and environmental regulations(e.g. PD 1152 Section 6, 8 & 42) 5.4 Tools and other materials are cleaned after use. 5.1 Required output is completed as specified by the immediate supervisor based on work schedule.	5.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 5.2 Green Building Concept relative to Construction (3R, 5S 5.3 Safe handling and standard specification of materials and tools 5.4 Safety signs and symbols 5.5 Adherence to work requirements	5.1 Working safely 5.2 Organizing materials to be stored 5.3 Handling and use of materials and tools 5.4 Communicating effectively 5.5 Using PPE 5.6 Implementing 3R and 5S

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes 1.3 Gloves 1.4 Working clothes 1.5 Goggles 1.6 Vest
2. Materials and hand tools	May include: 2.1 Lumber 2.2 Nails 2.3 G.I. Wires 2.4 Chalk line box 2.5 Pen Marker/ Pencil/Chalk stone 2.6 Claw hammer 2.7 Sledge hammer 2.8 Level hose/ level bar 2.9 Pull push rule/ steel tape/ laser meter 2.10 Nylon string 2.11 Plumb bob 2.12 Steel square/Carpenter's square 2.13 Combination square 2.14 Wood chisel 2.15 Screw driver
3. Jamb and panels	May include: 3.1 Lockset 3.2 Hinges 3.3 Door knob 3.4 Barrel bolt 3.5 Door stopper
4. Job requirements	May include: 3.1 Approved working drawings 3.2 Sketches/ Shop drawings
5. Panels	May include: 4.1 Door 4.2 Window

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Prepared materials and tools consistent with job requirements</li> <li>1.2 Laid-out location based on working drawings</li> <li>1.3 Fixed door jamb and panels as per drawings</li> <li>1.4 Fixed window frames and panels as per drawings</li> <li>1.5 Performed housekeeping</li> <li>1.6 Observed and complied with safety and environmental regulations</li> <li>1.7 Communicated with others to ensure effective work operation</li> <li>1.8 Observed and complied with the productivity requirements</li> <li>1.9 Complied with attitudinal work requirements</li> </ul>
<p>2. Resource implications</p>	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>2.1 Actual or simulated workplace</li> <li>2.2 Tools, materials and equipment needed to perform the required tasks</li> <li>2.3 References and manuals</li> <li>2.4 PPE</li> <li>2.5 First Aid Kit</li> </ul>
<p>3. Method of assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Demonstration/Observation with Oral Questioning</li> </ul>
<p>4. Context for assessment</p>	<ul style="list-style-type: none"> <li>4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center</li> </ul>

**UNIT OF COMPETENCY** : **INSTALL CEILING AND WALL FRAMES AND PANELS**

**UNIT CODE** : **CON711304**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills, and attitudes in the installation of ceiling and wall frames and panels.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Prepare materials, tools and equipment	1.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 List of materials, tools and equipment are secured and followed according to job requirements 1.3 <b>Material, tools and equipment</b> are selected, inspected and prepared consistent with 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 (3R, 5S) 1.3 Safe handling and standard specification of materials, tools and equipment 1.4 Markings and labels 1.5 Company rules and regulations 1.6 Mensuration 1.7 Safe and effective use of hand tools 1.8 Factors affecting productivity 1.9 Productivity work measurements 1.10 Ways of improving productivity 1.11 Adherence to work requirements	1.1 Using PPE 1.2 Communicating effectively 1.3 Following company rules and regulations 1.4 Organizing materials to be used 1.5 Handling and use of materials, tools and equipment 1.6 Applying mensuration 1.7 Implementing 3R and 5S

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Erect movable scaffolds or working platforms	<p>2.1 Personal Protective Equipment (PPE) is used in accordance with 1080 of Occupational Safety and Health Standards.</p> <p>2.2 Scaffolds or platforms and components are erected and stability is ensured based on work requirements and safety standards</p> <p>2.3 Work area is cleaned according to safety and environmental regulations</p> <p>2.4 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 Working at heights procedures</p> <p>2.4 Safe handling and standard specification of materials, tools and equipment</p> <p>2.5 Company rules and regulations</p> <p>2.6 Mensuration</p> <p>2.7 Factors affecting productivity</p> <p>2.8 Productivity work measurements</p> <p>2.9 Ways of improving productivity</p>	<p>2.1 Using PPE</p> <p>2.2 Communicating effectively</p> <p>2.3 Following company rules and regulations</p> <p>2.4 Organizing materials to be used</p> <p>2.5 Handling and use of materials, tools and equipment</p> <p>2.6 Applying mensuration</p> <p>2.7 Implementing 3R and 5S</p> <p>2.8 Complying safety requirements on erection procedure</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Layout ceiling elevation, wall location and position of framing system	<p>3.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>3.2 Exact layout is marked for ceiling and wall frames based on working drawings</p> <p>3.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>3.4 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>3.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>3.2 Green Building Concept relative to Construction (5S)</p> <p>3.3 Signs and symbols</p> <p>3.4 Company rules and regulations</p> <p>3.5 Methods and techniques in measurements</p> <p>3.6 Understanding instructions</p> <p>3.7 Factors affecting productivity</p> <p>3.8 Productivity work measurements</p> <p>3.9 Ways of improving productivity</p> <p>3.10 Adherence to work requirements</p>	<p>3.1 Applying mensuration</p> <p>3.2 Handling and use of materials, tools and equipment</p> <p>3.3 Applying productive methods and techniques</p> <p>3.4 Using PPE</p> <p>3.5 Communicating effectively</p> <p>3.6 Following company rules and regulations</p> <p>3.7 Following instructions</p> <p>3.8 Reading and understanding drawings</p> <p>3.9 Implementing 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
4. Fix frames and panels	<p>4.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>4.2 Frames are installed based on specifications</p> <p>4.3 Installed frames are checked for squareness, levelness, plumbness and alignment.</p> <p>4.4 Panels are fixed to frames based on working drawings</p> <p>4.5 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>4.6 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 Safe handling and standard specification of materials, tools and equipment</p> <p>4.4 Markings and labels</p> <p>4.5 Company rules and regulations</p> <p>4.6 Mensuration</p> <p>4.7 Installation procedures</p> <p>4.8 Factors affecting productivity</p> <p>4.9 Productivity work measurements</p> <p>4.10 Ways of improving productivity</p>	<p>4.1 Using PPE</p> <p>4.2 Communicating effectively</p> <p>4.3 Following company rules and regulations</p> <p>4.4 Organizing materials to be used</p> <p>1.8 Handling and use of materials, tools and equipment</p> <p>4.5 Applying mensuration</p> <p>4.6 Reading and understanding drawings</p> <p>4.7 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
5. Dismantle movable scaffolds or working platforms	5.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 5.2 Tools for dismantling and temporary storage area are prepared 5.3 Scaffolds or platforms components are removed, cleaned, sorted and stored accordingly for re-use 5.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 5.5 Required output is completed as specified by the immediate supervisor based on work schedule.	5.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 5.2 Green Building Concept relative to Construction (3R, 5S) 5.3 Working at heights procedures 5.4 Safe handling and standard specification of materials, tools and equipment 5.5 Markings and labels 5.6 Company rules and regulations 5.7 Dismantling procedures 5.8 Factors affecting productivity 5.9 Productivity work measurements	5.1 Using PPE 5.2 Communicating effectively 5.3 Following company rules and regulations 5.4 Organizing materials to be used 5.5 Handling and use of materials, tools and equipment 5.6 Complying requirements in dismantling scaffolds and components 5.7 Implementing 3R and 5S

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
6. Perform housekeeping	<p>6.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards.</p> <p>6.2 Excess/un-used materials are recovered and stockpiled according to company rules and procedures</p> <p>6.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>6.4 Tools and other materials are cleaned after use</p> <p>6.5 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 Safe handling and standard specification of materials, tools and equipment</p> <p>6.4 Safety signs and symbols</p> <p>6.5 Adherence to work requirements</p>	<p>6.1 Working safely</p> <p>6.2 Organizing materials to be stored</p> <p>6.3 Handling and use of materials, tools and equipment</p> <p>6.4 Communicating effectively</p> <p>6.5 Using PPE</p> <p>6.6 Implementing 3R and 5S</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes 1.3 Gloves 1.4 Working clothes 1.5 Goggles 1.6 Vest
5. Materials, tools and equipment	May include: 2.1 Lumber 2.2 Nails (Common wire nail and concrete nail) 2.3 G.I. Wires 2.4 Chalk line box 2.5 Pen Marker/ Pencil/Chalk stone 2.6 Claw hammer 2.7 Planer 2.8 Rip saw 2.9 Cross-cut saw 2.10 Level hose/ level bar 2.11 Pull push rule/ steel tape/ laser meter 2.12 Nylon string 2.13 Plumb bob 2.14 Steel square/Carpenter's square 2.15 Scaffolds and components 2.16 Adjustable wrench
6. Job requirements	May include: 5.1 Approved working drawings 5.2 Sketches/ Shop drawings

## EVIDENCE GUIDE

<p>1. Critical aspect of Competency</p>	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Prepared materials, tools and equipment consistent with job requirements</li> <li>1.2 Erected movable scaffolds or working platforms based on work requirements and safety standards</li> <li>1.3 Laid out ceiling elevation, wall location and position of framing system based on working drawings</li> <li>1.4 Fixed frames and panels based on working drawings</li> <li>1.5 Dismantled movable scaffolds or working platforms</li> <li>1.6 Performed housekeeping</li> <li>1.7 Observed and complied with safety and environmental regulations</li> <li>1.8 Communicated with others to ensure effective work operation</li> <li>1.9 Observed and complied with the productivity requirements</li> <li>1.10 Complied with attitudinal work requirements</li> </ul>
<p>2. Resource implications</p>	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>5.1 Actual or simulated workplace</li> <li>5.2 Tools, materials and equipment needed to perform the required tasks</li> <li>5.3 References and manuals</li> <li>5.4 PPE</li> <li>5.5 First Aid Kit</li> </ul>
<p>3. Method of assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Demonstration/Observation with Oral Questioning</li> </ul>
<p>4. Context for assessment</p>	<ul style="list-style-type: none"> <li>4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center</li> </ul>

**UNIT OF COMPETENCY** : **FABRICATE AND INSTALL WOODEN STAIRS**

**UNIT CODE** : **CON711305**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills, and attitudes in the fabrication and installation of wooden stairs, handrails and baluster.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Prepare materials, tools and equipment	1.1 <b><i>Personal protective equipment (PPE)</i></b> is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 List of materials, tools and equipment are secured and followed according to <b><i>job requirements</i></b> 1.3 <b><i>Materials, tools and equipment are</i></b> selected, inspected and prepared consistent with 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 (3R, 5S) 1.3 Safe handling and standard specification of materials, tools and equipment 1.4 Markings and labels 1.5 Company rules and regulations 1.6 Mensuration 1.7 Safe and effective use of hand tools 1.8 Factors affecting productivity 1.9 Productivity work measurements 1.10 Ways of improving productivity 1.11 Adherence to work requirements	1.1 Using PPE 1.2 Communicating effectively 1.3 Following company rules and regulations 1.4 Organizing materials to be used 1.5 Handling and use of materials, tools and equipment 1.6 Applying mensuration 1.7 Implementing 3R and 5S 1.8 Reading and understanding drawings

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Erect scaffolds	<p>2.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>2.2 <b>Scaffold systems</b> are erected and stability is ensured based on work requirements and safety standards</p> <p>2.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>2.4 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 Working at heights procedures</p> <p>2.4 Safe handling and standard specification of materials, tools and equipment</p> <p>2.5 Markings and labels</p> <p>2.6 Company rules and regulations</p> <p>2.7 Mensuration</p> <p>2.8 Assembly and erection procedures</p> <p>2.9 Factors affecting productivity</p> <p>2.10 Productivity work measurements</p> <p>2.11 Ways of improving productivity</p>	<p>2.1 Using PPE</p> <p>2.2 Communicating effectively</p> <p>2.3 Following company rules and regulations</p> <p>2.4 Organizing materials to be used</p> <p>2.5 Handling and use of materials, tools and equipment</p> <p>2.6 Applying mensuration</p> <p>2.7 Complying safety requirements on erection procedure</p> <p>2.8 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
6. Layout location and stair elevation	3.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 3.2 Exact location of stairs including riser and thread are marked based on working drawings 3.3 Exact location of handrails and balusters are marked for based on working drawings 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 (5S) 3.3 Signs and symbols 3.4 Company rules and regulations 3.5 Methods and techniques in measurements 3.6 Understanding instructions 3.7 Factors affecting productivity 3.8 Productivity work measurements 3.9 Ways of improving productivity 3.10 Adherence to work requirements	3.1 Applying mensuration 3.2 Handling and use of materials, tools and equipment 3.3 Applying productive methods and techniques 3.4 Implementing 5S 3.5 Using PPE 3.6 Communicating effectively 3.7 Following company rules and regulations 3.8 Following instructions 3.9 Reading and understanding drawings

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
4. Place wooden stringer, threads, handrails and baluster	<p>4.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>4.2 Wooden stringers are cut and fabricated based on working drawing and/or actual requirements</p> <p>4.3 Wooden stringer and thread are positioned and fixed based on working drawings.</p> <p>4.4 Handrails and balusters are installed based on working drawings</p> <p>4.5 Wooden <b><i>stairs assembly</i></b> are checked for stability and firmness.</p> <p>4.6 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>4.7 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 Safe handling of materials, tools and equipment</p> <p>4.4 Markings and labels</p> <p>4.5 Company rules and regulations</p> <p>4.6 Mensuration</p> <p>4.7 Installation procedures</p> <p>4.8 Factors affecting productivity</p> <p>4.9 Productivity work measurements</p> <p>4.10 Ways of improving productivity</p>	<p>4.1 Using PPE</p> <p>4.2 Communicating effectively</p> <p>4.3 Following company rules and regulations</p> <p>4.4 Organizing materials to be used</p> <p>4.5 Handling and use of materials, tools and equipment</p> <p>4.6 Applying mensuration</p> <p>4.7 Implementing 3R and 5S</p> <p>4.8 Following installation procedures</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
5. Dismantle scaffolds	5.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 5.2 Tools for dismantling and temporary storage area are prepared 5.3 Scaffold components are removed, cleaned, sorted and stored accordingly for re-use 5.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 5.5 Required output is completed as specified by the immediate supervisor based on work schedule.	5.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 5.2 Green Building Concept relative to Construction (3R, 5S) 5.3 Working at heights procedures 5.4 Safe handling of materials and hand tools 5.5 Markings and labels 5.6 Company rules and regulations 5.7 Dismantling procedures 5.8 Factors affecting productivity 5.9 Productivity work measurements	5.1 Using PPE 5.2 Communicating effectively 5.3 Following company rules and regulations 5.4 Organizing materials to be used 5.5 Handling and use of materials, tools and equipment 5.6 Implementing 3R and 5S 5.7 Complying requirements in dismantling scaffolds and components

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
6. Perform housekeeping	<p>6.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards.</p> <p>6.2 Excess/un-used materials are recovered and stockpiled according to company rules and procedures</p> <p>6.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>6.4 Tools and other materials are cleaned after use</p> <p>6.5 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 Safe handling and standard specification of materials, tools and equipment</p> <p>6.4 Safety signs and symbols</p> <p>6.5 Adherence to work requirements</p>	<p>6.1 Working safely</p> <p>6.2 Organizing materials to be stored</p> <p>6.3 Handling and use of materials, tools and equipment</p> <p>6.4 Communicating effectively</p> <p>6.5 Using PPE</p> <p>6.6 Implementing 3R and 5S</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes 1.3 Gloves 1.4 Working clothes 1.5 Goggles 1.6 Vest
2. Job requirements	May include: 2.1 Approved working drawings 2.2 Sketches/ Shop drawings
3. Materials, tools and equipment	May include: 3.1 Lumber 3.2 Nails (common wire) 3.3 G.I. Wires 3.4 Chalk line box 3.5 Pen Marker/ Pencil/Chalk stone 3.6 Wood adhesive 3.7 Claw hammer 3.8 Chisel 3.9 Level hose/ level bar 3.10 Pull push rule/ steel tape/ laser meter 3.11 Nylon string 3.12 Plumb bob 3.13 Steel square/Carpenter's square 3.14 Grinder 3.15 Sander 3.16 Circular saw/Jig saw with vacuum 3.17 Planer 3.18 Electric drill with bits 3.19 Adjustable wrench
3. Scaffold systems	May include: 3.1 Platforms 3.2 Braces 3.3 Shoring 3.4 Base- plates 3.5 Lateral, diagonal and vertical supports

4.Stairs assembly	May include: 4.1 Stringer 4.2 Thread 4.3 Handrail 4.4 Balusters 4.5 Landing
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## EVIDENCE GUIDE

1. Critical aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1 Prepared materials, tools and equipment consistent with job requirements 1.2 Erected scaffolds based on work requirements and safety standards 1.3 Laid-out location and stair elevation based on working drawings 1.4 Placed wooden stairs, stringer, thread, handrails and baluster 1.5 Dismantled scaffold 1.6 Performed housekeeping 1.7 Observed and complied with safety and environmental regulations 1.8 Communicated with others to ensure effective work operation 1.9 Observed and complied with the productivity requirements 1.10 Complied with attitudinal work requirements
2. Resource implications	<b>The following resources should be provided:</b> 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
3. Method of assessment	<b>Competency in this unit may be assessed through:</b> 3.1 Demonstration/Observation with Oral Questioning
4. Context for assessment	4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center

**UNIT OF COMPETENCY** : **INSTALL WOODEN FLOOR SUPPORTS AND PANELS**

**UNIT CODE** : **CON711306**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills, and attitudes in installation of wooden floor supports and panels.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Prepare materials, tools and equipment	1.1 <b>Personal protective equipment (PPE)</b> is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 List of materials and tools are secured and followed according to <b>job requirements</b> 1.3 <b>Material, tools and equipment</b> are selected, inspected and prepared consistent with 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 (3R, 5S) 1.3 Safe handling and standard specification of materials, tools and equipment 1.4 Markings and labels 1.5 Company rules and regulations 1.6 Mensuration 1.7 Safe and effective use of hand tools 1.8 Factors affecting productivity 1.9 Productivity work measurements 1.10 Ways of improving productivity 1.11 Adherence to work requirements	1.1 Using PPE 1.2 Communicating effectively 1.3 Following company rules and regulations 1.4 Organizing materials to be used 1.5 Handling and use of materials, tools and equipment 1.6 Applying mensuration 1.7 Implementing 3R and 5S 1.8 Reading and understanding drawings

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Erect scaffolds	<p>2.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>2.2 <b>Scaffold systems</b> are erected and stability is ensured based on work requirements and safety standards</p> <p>2.3 Work area is cleaned according to safety and environmental regulations</p> <p>2.4 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 Working at heights procedures</p> <p>2.4 Safe handling of materials, tools and equipment</p> <p>2.5 Markings and labels</p> <p>2.6 Company rules and regulations</p> <p>2.7 Mensuration</p> <p>2.8 Assembly and erection procedures</p> <p>2.9 Factors affecting productivity</p> <p>2.10 Productivity work measurements</p> <p>2.11 Ways of improving productivity</p>	<p>2.1 Using PPE</p> <p>2.2 Communicating effectively</p> <p>2.3 Following company rules and regulations</p> <p>2.4 Organizing materials to be used</p> <p>2.5 Handling and use of materials, tools and equipment</p> <p>2.6 Complying safety requirements on erection procedure</p> <p>2.7 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Layout floor elevation, location and position of framing system	<p>3.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>3.2 Exact location is marked for wooden floor supports, joists and panels based on working drawings</p> <p>3.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>3.4 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>3.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>3.2 Green Building Concept relative to Construction (5S)</p> <p>3.3 Signs and symbols</p> <p>3.4 Company rules and regulations</p> <p>3.5 Methods and techniques in measurements</p> <p>3.6 Understanding instructions</p> <p>3.7 Factors affecting productivity</p> <p>3.8 Productivity work measurements</p> <p>3.9 Ways of improving productivity</p> <p>3.10 Adherence to work requirements</p>	<p>3.1 Applying mensuration</p> <p>3.2 Handling and use of materials and hand tools</p> <p>3.3 Applying productive methods and techniques</p> <p>3.4 Implementing 5S</p> <p>3.5 Using PPE</p> <p>3.6 Communicating effectively</p> <p>3.7 Following company rules and regulations</p> <p>3.8 Following instructions</p> <p>3.9 Reading and understanding drawings</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
4. Place wooden floor supports and panels	<p>4.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>4.2 <b>Floor supports</b> are positioned and fixed as per working drawings</p> <p>4.3 Floor framings are checked for levelness and alignment.</p> <p>4.4 Floor Panels are fixed based on working drawings.</p> <p>4.5 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>4.6 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 Safe handling of materials, tools and equipment</p> <p>4.4 Markings and labels</p> <p>4.5 Company rules and regulations</p> <p>4.6 Mensuration</p> <p>4.7 Different types of wood joints</p> <p>4.8 Economic use of material</p> <p>4.9 Installation procedures</p> <p>4.10 Factors affecting productivity</p> <p>4.11 Productivity work measurements</p> <p>4.12 Ways of improving productivity</p>	<p>4.1 Using PPE</p> <p>4.2 Communicating effectively</p> <p>4.3 Following company rules and regulations</p> <p>4.4 Organizing materials to be used</p> <p>4.5 Handling and use of materials, tools and equipment</p> <p>4.6 Applying mensuration</p> <p>4.7 Implementing 3R and 5S</p> <p>4.8 Following installation procedures</p> <p>4.9 Reading and understanding drawings</p> <p>4.10 Performing basic joinery</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
5. Dismantle scaffolds	5.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 5.2 Tools for dismantling and temporary storage area are prepared 5.3 Scaffold components are removed, cleaned, sorted and stored accordingly for re-use 5.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 5.5 Required output is completed as specified by the immediate supervisor based on work schedule.	5.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 5.2 Green Building Concept relative to Construction (3R, 5S) 5.3 Working at heights procedures 5.4 Safe handling of materials and hand tools 5.5 Markings and labels 5.6 Company rules and regulations 5.7 Dismantling procedures 5.8 Factors affecting productivity 5.9 Productivity work measurements	5.1 Using PPE 5.2 Communicating effectively 5.3 Following company rules and regulations 5.4 Organizing materials to be used 5.5 Handling and use of materials, tools and equipment 5.6 Implementing 3R and 5S 5.7 Complying requirements in dismantling scaffolds and components

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
6. Perform housekeeping	<p>6.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards.</p> <p>6.2 Excess/un-used materials are recovered and stockpiled according to company rules and procedures</p> <p>6.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>6.4 Tools and other materials are cleaned after use</p> <p>6.5 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 Safe handling and standard specification of materials and tools</p> <p>6.4 Safety signs and symbols</p> <p>6.5 Adherence to work requirements</p>	<p>6.1 Working safely</p> <p>6.2 Organizing materials to be stored</p> <p>6.3 Handling and use of materials and tools</p> <p>6.4 Communicating effectively</p> <p>6.5 Using PPE</p> <p>6.6 Implementing 3R and 5S</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes 1.3 Gloves 1.4 Working clothes 1.5 Goggles 1.6 Vest 1.7 Full body harness (or alternative fall protection system such as railings/guard rails)
2. Job requirements	May include: 2.1 Approved working drawings 2.2 Sketches/ Shop drawings
3. Materials, tools and equipment	May include: 2.1 Lumber 2.2 Nails 2.3 G.I. Wires 2.4 Chalk line box 2.5 Pen Marker/ Pencil/Chalk stone 2.6 Claw hammer 2.7 Chisel 2.8 Cross-cut saw 2.9 Rip saw 2.10 Level hose/ level bar 2.11 Pull push rule/ steel tape/ laser meter 2.12 Nylon string 2.13 Plumb bob 2.14 Steel square/Carpenter's square 2.15 Grinder 2.16 Sander 2.17 Circular saw / jig saw with vacuum 2.18 Planer 2.19 Electric drill with bits 2.20 Adjustable wrench
3. Scaffolds systems	May include: 3.1 Platforms 3.2 Braces 3.3 Shoring 3.4 Base- plates 3.5 Lateral, diagonal and vertical supports

4. Floor supports	May Include: 4.1 Beams/Girders 4.2 Stringers 4.3 Bridging 4.4 Joist
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## EVIDENCE GUIDE

1. Critical aspects of Competency	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Prepared materials, tools and equipment consistent with job requirements</li> <li>1.2 Erected scaffolds based on work requirements and safety standards</li> <li>1.3 Laid-out floor elevation, location and position of framing system based on working drawings</li> <li>1.4 Placed wooden floor supports and panels based on working drawings</li> <li>1.5 Dismantled scaffolds</li> <li>1.6 Performed housekeeping</li> <li>1.7 Observed and complied with safety and environmental regulations</li> <li>1.8 Communicated with others to ensure effective work operation</li> <li>1.9 Observed and complied with the productivity requirements</li> <li>1.10 Complied with attitudinal work requirements</li> </ul>
2. Resource implications	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>2.1 Actual or simulated workplace</li> <li>2.2 Tools, materials and equipment needed to perform the required tasks</li> <li>2.3 References and manuals</li> <li>2.4 PPE</li> <li>2.5 First Aid Kit</li> </ul>
3. Method of assessment	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Demonstration/Observation with Oral Questioning</li> </ul>
4. Context for assessment	<ul style="list-style-type: none"> <li>4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center</li> </ul>

**UNIT OF COMPETENCY** : **FABRICATE AND INSTALL ROOFING SYSTEM**

**UNIT CODE** : **CON711307**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills, and attitudes in fabrication and installation of roofing system (wooden roof truss, purlins and roofing sheets & accessories).

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Prepare materials, tools and equipment	1.1 <b>Personal protective equipment (PPE)</b> is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 List of materials, hand tools and equipment are secured according to <b>job requirements</b> 1.3 <b>Materials, hand tools and equipment</b> are selected, inspected and prepared according to job requirements. 1.4 Fabrication and staging area are prepared based on job requirements 1.5 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 1.6 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 Safe handling and standard specification of materials, tools and equipment 1.4 Markings and labels 1.5 Company rules and regulations 1.6 Mensuration 1.7 Safe and effective use of hand tools 1.8 Factors affecting productivity 1.9 Productivity work measurements 1.10 Ways of improving productivity 1.11 Adherence to work requirements	1.1 Using PPE 1.2 Communicating effectively 1.3 Following company rules and regulations 1.4 Organizing materials to be used 1.5 Handling and use of materials, tools and equipment 1.6 Applying mensuration 1.7 Implementing 3R and 5S 1.8 Reading and understanding drawings

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Erect scaffolds	<p>2.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>2.2 Scaffold systems are erected and stability is ensured based on work requirements and safety standards</p> <p>2.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>2.4 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 Working at heights procedures</p> <p>2.4 Safe handling and standard specification of materials, tools and equipment</p> <p>2.5 Markings and labels</p> <p>2.6 Company rules and regulations</p> <p>2.7 Mensuration</p> <p>2.8 Assembly and erection procedures</p> <p>2.9 Factors affecting productivity</p> <p>2.10 Productivity work measurements</p> <p>2.11 Ways of improving productivity</p>	<p>2.1 Using PPE</p> <p>2.2 Communicating effectively</p> <p>2.3 Following company rules and regulations</p> <p>2.4 Organizing materials to be used</p> <p>2.5 Handling and use of materials, tools and equipment</p> <p>2.6 Complying safety requirements on erection procedure</p> <p>2.7 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Layout truss location and elevation	<p>3.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>3.2 Exact location for roof truss assembly is marked based on working drawing</p> <p>3.3 Work area is cleaned according to safety and environmental regulations</p> <p>3.4 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>3.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>3.2 Green Building Concept relative to Construction (5S)</p> <p>3.3 Signs and symbols</p> <p>3.4 Company rules and regulations</p> <p>3.5 Methods and techniques in measurements</p> <p>3.6 Understanding instructions</p> <p>3.7 Factors affecting productivity</p> <p>3.8 Productivity work measurements</p> <p>3.9 Ways of improving productivity</p> <p>3.10 Adherence to work requirements</p>	<p>3.1 Applying mensuration</p> <p>3.2 Handling and use of materials, tools and equipment</p> <p>3.3 Applying productive methods and techniques</p> <p>3.4 Using PPE</p> <p>3.5 Communicating effectively</p> <p>3.6 Following company rules and regulations</p> <p>3.7 Following instructions</p> <p>3.8 Implementing 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
4. Assemble wooden roof truss	<p>4.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>4.2 <b>Truss members</b> are cut, assembled, fastened and fixed based on working drawings.</p> <p>4.3 Wooden roof truss assembly is placed in staging area.</p> <p>4.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</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 Working at heights procedures</p> <p>4.4 Safe handling and standard specification of materials, tools and equipment</p> <p>4.5 Markings and labels</p> <p>4.6 Company rules and regulations</p> <p>4.7 Mensuration</p> <p>4.8 Fabrication of wooden roof truss</p> <p>4.9 Different types of wood joints</p> <p>4.10 Factors affecting productivity</p> <p>4.11 Productivity work measurements</p> <p>4.12 Ways of improving productivity</p>	<p>4.1 Using PPE</p> <p>4.2 Communicating effectively</p> <p>4.3 Following company rules and regulations</p> <p>4.4 Organizing materials to be used</p> <p>4.5 Handling and use of materials, tools and equipment</p> <p>4.6 Applying mensuration</p> <p>4.7 Following fabrication procedures</p> <p>4.8 Performing basic joinery</p> <p>4.9 Reading and understanding drawings</p> <p>4.10 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
5.Place wooden roof truss assembly, purlins and fascia board	5.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards 5.2 Wooden roof truss assembly is lifted from staging area using <b>lifting equipment</b> 5.3 Wooden roof truss assembly is positioned and fixed according to job requirements 5.4 Alignment of all installed wooden roof truss assembly are checked based on job requirements 5.5 Purlins are installed as per required spacing 5.6 Fascia boards are installed based on job requirements 5.7 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 5.8 Required output is completed as specified by the immediate supervisor based on work schedule.	5.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 5.2 Green Building Concept relative to Construction (3R, 5S) 5.3 Safe handling and standard specification of materials, tools and equipment 5.4 Markings and labels 5.5 Company rules and regulations 5.6 Mensuration 5.7 Installation procedures 5.8 Lifting procedures 5.9 Different types of wood joints 5.10 Factors affecting productivity 5.11 Productivity work measurements 5.12 Ways of improving productivity	5.1 Using PPE 5.2 Communicating effectively 5.3 Following company rules and regulations 5.4 Organizing materials to be used 5.5 Handling and use of materials, tools and equipment 5.6 Applying mensuration 5.7 Implementing 3R and 5S 5.8 Following installation procedures 5.9 Following lifting procedures requirements 5.10 Performing basic joinery 5.11 Reading and understanding drawings

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
6.Place roofing sheets and accessories	<p>6.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>6.2 Roofing sheets and bended and hardware accessories are lifted, positioned and fixed based on job requirements</p> <p>6.3 Roofing system is checked based on job requirements</p> <p>6.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>6.5 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 Safe handling and standard specification of materials, tools and equipment</p> <p>6.3 Markings and labels</p> <p>6.4 Company rules and regulations</p> <p>6.5 Mensuration</p> <p>6.6 Different types of wood joints</p> <p>6.7 Installation procedures</p> <p>6.8 Lifting procedures</p> <p>6.9 Factors affecting productivity</p> <p>6.10 Productivity work measurements</p> <p>6.11 Ways of improving productivity</p>	<p>6.1 Using PPE</p> <p>6.2 Communicating effectively</p> <p>6.3 Following company rules and regulations</p> <p>6.4 Organizing materials to be used</p> <p>6.5 Handling and use of materials, tools and equipment</p> <p>6.6 Applying mensuration</p> <p>6.7 Following installation procedures</p> <p>6.8 Following lifting procedures requirements</p> <p>6.9 Reading and understanding drawings</p> <p>6.10 Performing basic joinery</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
7.Dismantle scaffolds	<p>7.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>7.2 Tools for dismantling and temporary storage area are prepared</p> <p>7.3 Scaffold components are removed, cleaned, sorted and stored accordingly for re-use</p> <p>7.4 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>7.5 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>7.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>7.2 Green Building Concept relative to Construction (3R, 5S)</p> <p>7.3 Working at heights procedures</p> <p>7.4 Safe handling and standard specification of materials, tools and equipment</p> <p>7.5 Markings and labels</p> <p>7.6 Company rules and regulations</p> <p>7.7 Dismantling procedures</p> <p>7.8 Factors affecting productivity</p> <p>7.9 Productivity work measurements</p> <p>7.10 Ways of improving productivity</p>	<p>7.1 Using PPE</p> <p>7.2 Communicating effectively</p> <p>7.3 Following company rules and regulations</p> <p>7.4 Organizing materials to be used</p> <p>7.5 Handling and use of materials, tools and equipment</p> <p>7.6 Implementing 3R and 5S</p> <p>7.7 Complying requirements in dismantling scaffolds and components</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
8.Perform housekeeping	<p>8.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards.</p> <p>8.2 Excess/un-used materials are recovered and stockpiled according to company rules and procedures</p> <p>8.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>8.4 Tools and other materials are cleaned after use</p> <p>8.5 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>8.2 Green Building Concept relative to Construction (3R, 5S)</p> <p>8.3 Safe handling and standard specification of materials, tools and equipment</p> <p>8.4 Safety signs and symbols</p> <p>8.5 Adherence to work requirements</p>	<p>8.1 Working safely</p> <p>8.2 Organizing materials to be stored</p> <p>8.3 Handling and use of materials, tools and equipment</p> <p>8.4 Communicating effectively</p> <p>8.5 Using PPE</p> <p>8.6 Implementing 3R and 5S</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes 1.3 Gloves 1.4 Working clothes 1.5 Goggles 1.6 Vest 1.7 Full body harness
2. Job requirements	May include: 2.1 Approved working drawings 2.2 Sketches/ Shop drawings
3. Materials, hand tools and equipment	May include: 3.1 Lumber 3.2 Nails 3.3 G.I. Wires 3.4 Fascia board 3.5 Chalk line box 3.6 Pen Marker/ Pencil/Chalk stone 3.7 Sealant 3.8 Sealant gun 3.9 Riveter 3.10 Claw hammer 3.11 Cross-cut saw 3.12 Circular saw/jig saw with vacuum 3.13 Level hose/ level bar 3.14 Pull push rule/ steel tape/ laser meter 3.15 Nylon string 3.16 Plumb bob 3.17 Steel square/Carpenter's square 3.18 Tin snips 3.19 Roofing sheets 3.20 Bended accessories 3.21 Hardware accessories 3.22 Lifting equipment 3.23 Electric drill with bits 3.24 Adjustable wrench

VARIABLE	RANGE
4. Scaffold system	May include: 4.1 Platforms 4.2 Braces 4.3 Shoring 4.4 Base- plates 4.5 Lateral, diagonal and vertical supports
5. Truss Members	May include: 5.1 Bottom cord 5.2 Top cord 5.3 King post 5.4 Vertical 5.5 Diagonal 5.6 Rafters
7. Lifting equipment	May include: 6.1 Jib pole 6.2 Electric Winch 6.3 Pulley 6.4 Nylon rope 6.5 Chain block
8. Bended and hardware accessories	May include: Bended Accessories: 7.1 Valley Gutter 7.2 Flashing 7.3 Ridge roll 7.4 Ridge cap 7.5 Outside gutter  Hardware Accessories 7.6 Rivet 7.7 Tekscrew 7.8 Sealant 7.9 Concrete nail

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Prepared materials, tools and equipment consistent with job requirements</li> <li>1.2 Erected scaffolds based on work requirements and safety standards</li> <li>1.3 Laid-out truss location and elevation based on working drawings</li> <li>1.4 Placed wooden roof truss assembly, purlins and fascia board based on job requirements</li> <li>1.5 Placed roofing sheets and accessories based on job requirements</li> <li>1.6 Dismantled scaffolds</li> <li>1.7 Performed housekeeping</li> <li>1.8 Observed and complied with safety and environmental regulations</li> <li>1.9 Communicated with others to ensure effective work operation</li> <li>1.10 Observed and complied with the productivity requirements</li> <li>1.11 Complied with attitudinal work requirements</li> </ul>
<p>2. Resource implications</p>	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>2.1 Actual or simulated workplace</li> <li>2.2 Tools, materials and equipment needed to perform the required tasks</li> <li>2.3 References and manuals</li> <li>2.4 PPE</li> <li>2.5 First Aid Kit</li> </ul>
<p>3. Method of assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Demonstration/Observation with Oral Questioning</li> </ul>
<p>4. Context for assessment</p>	<ul style="list-style-type: none"> <li>4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center</li> </ul>

**UNIT OF COMPETENCY** : **FABRICATE AND INSTALL WOODEN CABINET**

**UNIT CODE** : **CON711308**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills, and attitudes in fabrication and installation of wooden cabinet.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Prepare materials and tools	1.1 <b>Personal protective equipment (PPE)</b> is used in accordance with Rule 1080 of Occupational Safety and Health Standards 1.2 List of materials and tools are secured according to <b>job requirements</b> 1.3 <b>Materials and hand tools</b> are selected, inspected and prepared according to job requirements. 1.4 Fabrication area is prepared based on job requirements 1.5 Work area is cleaned according to safety and environmental regulations 1.6 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 Safe handling and standard specification of materials and tools 1.4 Markings and labels 1.5 Company rules and regulations 1.6 Mensuration 1.7 Safe and effective use of hand tools 1.8 Factors affecting productivity 1.9 Productivity work measurements 1.10 Ways of improving productivity 1.11 Adherence to work requirements	1.1 Using PPE 1.2 Communicating effectively 1.3 Following company rules and regulations 1.4 Organizing materials to be used 1.5 Handling and use of materials and tools 1.6 Applying mensuration 1.7 Implementing 3R and 5S 1.8 Reading and understanding drawings

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Assemble wooden cabinet	<p>2.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>2.2 Parts are cut, assembled and fixed based on working drawings.</p> <p>2.3 Wooden cabinet is checked based on working drawings</p> <p>2.1 Work area is cleaned according to safety and environmental regulations</p> <p>2.2 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 Working at heights procedures</p> <p>2.4 Safe handling and standard specification of materials and tools</p> <p>2.5 Markings and labels</p> <p>2.6 Company rules and regulations</p> <p>2.7 Mensuration</p> <p>2.8 Fabrication of wooden cabinet</p> <p>2.9 Factors affecting productivity</p> <p>2.10 Productivity work measurements</p> <p>2.11 Ways of improving productivity</p>	<p>2.1 Using PPE</p> <p>2.2 Communicating effectively</p> <p>2.3 Following company rules and regulations</p> <p>2.4 Organizing materials to be used</p> <p>2.5 Handling and use of materials and tools</p> <p>2.6 Applying mensuration</p> <p>2.7 Following fabrication procedures</p> <p>2.8 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Layout location	<p>3.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>3.2 Exact location for wooden cabinet is marked based on working drawings</p> <p>3.3 Wooden cabinet is checked for levelness and alignment</p> <p>2.1 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>2.2 Required output is completed as specified by the immediate supervisor based on work schedule.</p>	<p>3.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry</p> <p>3.2 Green Building Concept relative to Construction (5S)</p> <p>3.3 Signs and symbols</p> <p>3.4 Company rules and regulations</p> <p>3.5 Methods and techniques in measurements</p> <p>3.6 Understanding instructions</p> <p>3.7 Factors affecting productivity</p> <p>3.8 Productivity work measurements</p> <p>3.9 Ways of improving productivity</p> <p>3.10 Adherence to work requirements</p>	<p>3.1 Applying mensuration</p> <p>3.2 Handling and use of materials and tools</p> <p>3.3 Applying productive methods and techniques</p> <p>3.4 Using PPE</p> <p>3.5 Communicating effectively</p> <p>3.6 Following company rules and regulations</p> <p>3.7 Following instructions</p> <p>3.8 Implementing 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
4. Place wooden cabinet	<p>4.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards</p> <p>4.2 Wooden cabinet is lifted, positioned and fixed according to job requirements</p> <p>4.3 Wooden cabinet is checked based on job requirements</p> <p>2.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 &amp; 42)</p> <p>2.4 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 Safe handling and standard specification of materials, tools</p> <p>4.4 Markings and labels</p> <p>4.5 Company rules and regulations</p> <p>4.6 Mensuration</p> <p>4.7 Installation procedures</p> <p>4.8 Factors affecting productivity</p> <p>4.9 Productivity work measurements</p> <p>4.10 Ways of improving productivity</p>	<p>4.1 Using PPE</p> <p>4.2 Communicating effectively</p> <p>4.3 Following company rules and regulations</p> <p>4.4 Organizing materials to be used</p> <p>4.5 Handling and use of materials and tools</p> <p>4.6 Applying mensuration</p> <p>4.7 Following installation procedures</p> <p>4.8 Implementing 3R and 5S</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms are elaborated in the Range of Variables</i>	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
5. Perform housekeeping	5.1 Personal protective equipment (PPE) is used in accordance with Rule 1080 of Occupational Safety and Health Standards. 5.2 Excess/un-used materials are recovered and stockpiled according to company rules and procedures 5.3 Work area is cleaned according to safety and environmental regulations (e.g. PD 1152 Section 6, 8 & 42) 5.4 Tools and other materials are cleaned after use 5.5 Required output is completed as specified by the immediate supervisor based on work schedule.	5.1 DOLE Department Order No. 13 series 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 5.2 Green Building Concept relative to Construction (3R, 5S) 5.3 Safe handling and standard specification of materials, tools and equipment 5.4 Safety signs and symbols 5.5 Adherence to work requirements	5.1 Working safely 5.2 Organizing materials to be stored 5.3 Handling and use of materials, tools and equipment 5.4 Communicating effectively 5.5 Using PPE 5.6 Implementing 3R and 5S

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment (PPE)	Include: 1.1 Hard hat 1.2 Safety shoes 1.3 Gloves 1.4 Working clothes 1.5 Goggles 1.6 Vest
2. Job requirements	May include: 2.1 Approved working drawings 2.2 Sketches/ Shop drawings
3. Materials, tools and equipment	May include: 3.1 Lumber 3.2 Nails 3.3 Chalk line box 3.4 Plywood 3.5 Hardware (Hinges, door handle, catches, hook and eye) 3.6 Pen Marker/ Pencil/Chalk stone 3.7 Wood Adhesive 3.8 Claw hammer 3.9 Chisel 3.10 Screw driver (Philips and flat) 3.11 Level hose/ level bar 3.12 Pull push rule/ steel tape/ laser meter 3.13 Nylon string 3.14 Plumb bob 3.15 Steel square/Carpenter's square 3.16 Sand paper 3.17 Circular saw / jig saw with vacuum 3.18 Cross cut saw 3.19 Rip saw 3.20 Electric drill with bits 3.21 Planer

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Prepared materials and tools consistent with job requirements</li> <li>1.2 Assembled wooden cabinet based on working drawings.</li> <li>1.3 Laid-out location</li> <li>1.4 Placed wooden cabinet according to job requirements</li> <li>1.5 Performed housekeeping</li> <li>1.6 Observed and complied with safety and environmental regulations</li> <li>1.7 Communicated with others to ensure effective work operation</li> <li>1.8 Observed and complied with the productivity requirements</li> <li>1.9 Complied with attitudinal work requirements</li> </ul>
<p>2. Resource implications</p>	<p><b>The following resources should be provided:</b></p> <ul style="list-style-type: none"> <li>2.1 Actual or simulated workplace</li> <li>2.2 Tools, materials and equipment needed to perform the required tasks</li> <li>2.3 References and manuals</li> <li>2.4 PPE</li> <li>2.5 First Aid Kit</li> </ul>
<p>3. Method of assessment</p>	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Demonstration/Observation with Oral Questioning</li> </ul>
<p>4. Context for assessment</p>	<ul style="list-style-type: none"> <li>4.1 Competency may be assessed in actual workplace or at the designated TESDA Accredited Assessment Center</li> </ul>

## 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 **CARPENTRY NC II**.

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: CARPENTRY NC II

Nominal Training Duration:	<b>37 Hours</b>	<b>Basic Competencies</b>
	<b>24 Hours</b>	<b>Common Competencies</b>
	<b><u>240 Hours</u></b>	<b>Core Competencies</b>
<b>Total</b>	<b>301 Hours</b>	

#### Course Description:

This course is designed to provide the learner with knowledge, practical skills and attitude, applicable in performing work activities involve in performing tasks such as 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 and fabricate and install wooden cabinet. 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  
(37 HOURS)**

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodology</b>	<b>Assessment Approach</b>	<b>Nominal Duration</b>
1. Participate in workplace communication	1.1. Obtain and convey workplace information	<ul style="list-style-type: none"> <li>• Describe Organizational policies</li> <li>• Read:               <ul style="list-style-type: none"> <li>○ Effective communication</li> <li>○ Written communication</li> <li>○ Communication procedures and systems</li> </ul> </li> <li>• Identify:               <ul style="list-style-type: none"> <li>○ Different modes of communication</li> <li>○ Medium of communication</li> <li>○ Flow of communication</li> <li>○ Available technology relevant to the enterprise and the individual's work responsibilities</li> </ul> </li> <li>• Prepare different Types of question</li> <li>• Gather different sources of information</li> <li>• Apply storage system in establishing workplace information</li> <li>• Demonstrate Telephone courtesy</li> </ul>	<ul style="list-style-type: none"> <li>• Group discussion</li> <li>• Lecture</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Oral evaluation</li> <li>• Written examination</li> <li>• Observation</li> </ul>	2 hours
	1.2. Perform duties following workplace instructions	<ul style="list-style-type: none"> <li>• Read:               <ul style="list-style-type: none"> <li>○ Written notices and instructions</li> <li>○ Workplace interactions and procedures</li> </ul> </li> <li>• Read instructions on work related forms/documents</li> <li>• Perform workplace duties scenario following workplace instructions</li> </ul>	<ul style="list-style-type: none"> <li>• Group discussion</li> <li>• Lecture</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Oral evaluation</li> <li>• Written examination</li> <li>• Observation</li> </ul>	2 hours

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
	1.3. Complete relevant work related documents	<ul style="list-style-type: none"> <li>• Describe Communication procedures and systems</li> <li>• Read: <ul style="list-style-type: none"> <li>○ Meeting protocols</li> <li>○ Nature of workplace meetings</li> <li>○ Workplace interactions</li> <li>○ Barriers of communication</li> </ul> </li> <li>• Read instructions on work related forms/documents</li> <li>• Practice: <ul style="list-style-type: none"> <li>○ Estimate, calculate and record routine workplace measures</li> <li>○ Basic mathematical processes of addition, subtraction, division and multiplication</li> </ul> </li> <li>• Demonstrate office activities in: <ul style="list-style-type: none"> <li>○ workplace meetings and discussions scenario</li> </ul> </li> <li>• Perform workplace duties scenario following simple written notices</li> <li>• Follow simple spoken language</li> <li>• Identify the different Non-verbal communication</li> <li>• Demonstrate ability to relate to people of social range in the workplace</li> <li>• Gather and provide information in response to workplace requirements</li> <li>• Complete work related documents</li> </ul>	<ul style="list-style-type: none"> <li>• Group discussion</li> <li>• Lecture</li> <li>• Demonstration</li> <li>• Role play</li> </ul>	<ul style="list-style-type: none"> <li>• Oral evaluation</li> <li>• Written examination</li> <li>• Observation</li> </ul>	2 hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodology</b>	<b>Assessment Approach</b>	<b>Nominal Duration</b>
2. Work in a team environment	2.1 Describe team role and scope	<ul style="list-style-type: none"> <li>• Discussion on team roles and scope</li> <li>• Participate in the discussion: <ul style="list-style-type: none"> <li>○ Definition of Team</li> <li>○ Difference between team and group</li> <li>○ Objectives and goals of team</li> </ul> </li> <li>• Locate needed information from the different sources of information</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture/ Discussion</li> <li>• Group Work</li> <li>• Individual Work</li> <li>• Role Play</li> </ul>	<ul style="list-style-type: none"> <li>• Role Play</li> <li>• Case Study</li> <li>• Written Test</li> </ul>	1 hour
	2.2 Identify one's role and responsibility within team	<ul style="list-style-type: none"> <li>• Role play : <ul style="list-style-type: none"> <li>○ individual role and responsibility</li> </ul> </li> <li>• Role Play <ul style="list-style-type: none"> <li>○ Understanding Individual differences</li> </ul> </li> <li>• Discussion on gender sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>•Role Play</li> <li>•Lecture/ Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Role Play</li> <li>• Written Test</li> </ul>	1 hour
	2.3 Work as a team member	<ul style="list-style-type: none"> <li>• Participate in group planning activities</li> <li>• Role play : Communication protocols</li> <li>• Participate in the discussion of standard work procedures and practices</li> </ul>	<ul style="list-style-type: none"> <li>•Group work</li> <li>•Role Play</li> <li>•Lecture/ Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Role Play</li> <li>• Written Test</li> </ul>	1 hour
3. Solve/address routine problems	3.1 Identify routine problems	<ul style="list-style-type: none"> <li>• Review of the current industry hardware and software products and services</li> <li>• Identify correctly the industry maintenance, service and helpdesk practices, processes and procedures</li> <li>• Make use of the industry standard diagnostic tools</li> <li>• Share best practices in determining basic malfunctions and resolutions to general problems in the workplace</li> <li>• Analyze routine/procedural problems</li> </ul>	<ul style="list-style-type: none"> <li>•Group discussion</li> <li>•Lecture</li> <li>•Demonstration</li> <li>•Role playing</li> </ul>	<ul style="list-style-type: none"> <li>•Case Formulation</li> <li>•Life Narrative Inquiry (Interview)</li> <li>•Standardized test</li> </ul>	1 hour

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodology</b>	<b>Assessment Approach</b>	<b>Nominal Duration</b>
	3.2 Look for solutions to routine problems	<ul style="list-style-type: none"> <li>• Review of the current industry hardware and software products and services</li> <li>• Identify correctly the industry maintenance, service and helpdesk practices, processes and procedures</li> <li>• Make use of the industry standard diagnostic tools</li> <li>• Share best practices in determining basic malfunctions and resolutions to general problems in the workplace</li> <li>• Formulate possible solutions to problems and document procedures for reporting</li> </ul>	<ul style="list-style-type: none"> <li>•Group discussion</li> <li>•Lecture</li> <li>•Demonstration</li> <li>•Role playing</li> </ul>	<ul style="list-style-type: none"> <li>• Case Formulation</li> <li>• Life Narrative Inquiry (Interview)</li> <li>• Standardized test</li> </ul>	1 hour
	3.3 Recommend solutions to problems	<ul style="list-style-type: none"> <li>• Discuss standard operating procedures and documentation processes</li> </ul>	<ul style="list-style-type: none"> <li>•Group discussion</li> <li>•Lecture</li> <li>•Demonstration</li> <li>•Role playing</li> </ul>	<ul style="list-style-type: none"> <li>• Case Formulation</li> <li>• Life Narrative Inquiry (Interview)</li> <li>• Standardized test</li> </ul>	1 hour
4. Develop Career and Life Decisions	4.1 Manage one's emotion	<ul style="list-style-type: none"> <li>• Demonstrate self-management strategies that assist in regulating behavior and achieving personal and learning goals</li> <li>• Explain enablers and barriers in achieving personal and career goals</li> <li>• Identify techniques in handling negative emotions and unpleasant situation in the workplace such as frustration, anger, worry, anxiety, etc.</li> <li>• Manage properly one's emotions and recognize situations that cannot be changed and accept them and remain</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Interactive Lecture</li> <li>• Brainstorming</li> <li>• Demonstration</li> <li>• Role-playing</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration or simulation with oral questioning</li> <li>• Case problems involving workplace diversity issues</li> </ul>	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		professional <ul style="list-style-type: none"> <li>• Recall instances that demonstrate self-discipline, working independently and showing initiative to achieve personal and career goals</li> <li>• Share experiences that show confidence, and resilience in the face of setbacks and frustrations and other negative emotions and unpleasant situations in the workplace</li> </ul>			
	4.2 Develop reflective practice	<ul style="list-style-type: none"> <li>• Enumerate strategies to improve one's attitude in the workplace</li> <li>• Explain Gibbs' Reflective Cycle/Model (Description, Feelings, Evaluation, Analysis, Conclusion, and Action plan)</li> <li>• Use basic SWOT analysis as self-assessment strategy</li> <li>• Develop reflective practice through realization of limitations, likes/ dislikes; through showing of self-confidence</li> <li>• Demonstrate self-acceptance and being able to accept challenges</li> </ul>	<ul style="list-style-type: none"> <li>• Small Group Discussion</li> <li>• Interactive Lecture</li> <li>• Brainstorming</li> <li>• Demonstration</li> <li>• 5 Role-playing</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration or simulation with oral questioning</li> <li>• Case problems involving workplace diversity issues</li> </ul>	1 hour
	4.3 Boost self-confidence and develop self-regulation	<ul style="list-style-type: none"> <li>• Describe the components of self-regulation based on Self-Regulation Theory (SRT)</li> <li>• Explain personality development concepts</li> <li>• Cite self-help concepts (e. g., 7 Habits by Stephen Covey, transactional analysis, psycho-spiritual concepts)</li> <li>• Perform effective communication skills – reading, writing, conversing skills</li> <li>• Show affective skills – flexibility,</li> </ul>	<ul style="list-style-type: none"> <li>• Small Group Discussion</li> <li>• Interactive Lecture</li> <li>• Brainstorming</li> <li>• Demonstration</li> <li>• Role-playing</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration or simulation with oral questioning</li> <li>• Case problems involving workplace diversity issues</li> </ul>	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		adaptability, etc. <ul style="list-style-type: none"> <li>• Determine strengths and weaknesses</li> </ul>			
5. Contribute to workplace innovation	5.1 Identify opportunities to do things better	<ul style="list-style-type: none"> <li>• Identify different roles of individuals in contributing to doing things better in the workplace</li> <li>• Appreciate positive impacts and challenges in innovation</li> <li>• Show mastery of the different types of changes and levels of participation in the workplace</li> <li>• Discuss 7 habits of highly effective people</li> </ul>	<ul style="list-style-type: none"> <li>•Interactive Lecture</li> <li>•Appreciative Inquiry</li> <li>•Demonstration</li> <li>•Group work</li> </ul>	<ul style="list-style-type: none"> <li>• Psychological and behavioral Interviews</li> <li>• Performance Evaluation</li> <li>• Life Narrative Inquiry</li> <li>• Review of portfolios of evidence and third-party workplace reports of on-the-job performance.</li> <li>• Standardized assessment of character strengths and virtues applied</li> </ul>	1 hour
	5.2 Discuss and develop ideas with others	<ul style="list-style-type: none"> <li>• Identify different roles of individuals in contributing to doing things better in the workplace</li> <li>• Appreciate positive impacts and challenges in innovation</li> <li>• Show mastery of the different types of changes and levels of participation in the</li> </ul>	<ul style="list-style-type: none"> <li>•Interactive Lecture</li> <li>•Appreciative Inquiry</li> <li>•Demonstration</li> <li>•Group work</li> </ul>	<ul style="list-style-type: none"> <li>• Psychological and behavioral Interviews</li> <li>• Performance Evaluation</li> <li>• Life Narrative Inquiry</li> </ul>	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
		workplace <ul style="list-style-type: none"> <li>• Discuss 7 habits of highly effective people</li> <li>• Communicate ideas through small group discussions and meetings</li> </ul>		<ul style="list-style-type: none"> <li>• Review of portfolios of evidence and third-party workplace reports of on-the-job performance.</li> <li>• Standardized assessment of character strengths and virtues applied</li> </ul>	
	5.3 Integrate ideas for change in the workplace	<ul style="list-style-type: none"> <li>• Identify different roles of individuals in contributing to doing things better in the workplace</li> <li>• Appreciate positive impacts and challenges in innovation</li> <li>• Show mastery of the different types of changes and levels of participation in the workplace</li> <li>• Discuss 7 habits of highly effective people</li> <li>• Communicate ideas through small group discussions and meetings</li> <li>• Demonstrate basic skills in data analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lecture</li> <li>• Appreciative Inquiry</li> <li>• Demonstration</li> <li>• Group work</li> </ul>	<ul style="list-style-type: none"> <li>• Psychological and behavioral Interviews</li> <li>• Performance Evaluation</li> <li>• Life Narrative Inquiry</li> <li>• Review of portfolios of evidence and third-party workplace reports of on-the-job performance.</li> <li>• Standardized assessment of character strengths and</li> </ul>	1 hour

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Approach	Nominal Duration
				virtues applied	
6. Present relevant information	6.1 Gather data/ information	<ul style="list-style-type: none"> <li>• Lecture and discussion on: <ul style="list-style-type: none"> <li>○ Organisational protocols</li> <li>○ Confidentiality and accuracy</li> <li>○ Business mathematics and statistics</li> <li>○ Legislation, policy and procedures relating to the conduct of evaluations</li> </ul> </li> <li>• Reviewing data/ information</li> </ul>	<ul style="list-style-type: none"> <li>• Group discussion</li> <li>• Lecture</li> <li>• Demonstration</li> <li>• Role Play</li> </ul>	<ul style="list-style-type: none"> <li>• Oral evaluation</li> <li>• Written Test</li> <li>• Observation</li> <li>• Presentation</li> </ul>	2 Hours
	6.2 Assess gathered data/ information	<ul style="list-style-type: none"> <li>• Lecture and discussion on: <ul style="list-style-type: none"> <li>○ Data analysis techniques/ procedures</li> <li>○ Organisational values, ethics and codes of conduct</li> <li>○ Trends and anomalies</li> </ul> </li> <li>• Computing business mathematics and statistics</li> <li>• Application of data analysis techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Group discussion</li> <li>• Lecture</li> <li>• Demonstration</li> <li>• Role Play</li> <li>• Practical exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Oral evaluation</li> <li>• Written Test</li> <li>• Observation</li> <li>• Presentation</li> </ul>	3 Hours
	6.3 Record and present information	<ul style="list-style-type: none"> <li>• Lecture and discussion on: <ul style="list-style-type: none"> <li>○ Reporting requirements to a range of audiences</li> <li>○ Recommendations for possible improvements</li> </ul> </li> <li>• Analysis and comparison of interim and final reports' outcomes</li> <li>• Reporting of data findings</li> </ul>	<ul style="list-style-type: none"> <li>• Group discussion</li> <li>• Lecture</li> <li>• Demonstration</li> <li>• Role Play</li> <li>• Practical exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Oral evaluation</li> <li>• Written Test</li> <li>• Observation</li> <li>• Presentation</li> </ul>	3 Hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodology</b>	<b>Assessment Approach</b>	<b>Nominal Duration</b>
7. Practice Occupational Safety And Health Policies And Procedures	7.1 Identify OSH compliance requirements	<ul style="list-style-type: none"> <li>• Discussion regarding:               <ul style="list-style-type: none"> <li>- Hierarchy of Controls</li> <li>- Hazard Prevention and Controls</li> <li>- Work Standards and Procedures</li> <li>- Personal Protective Equipment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Written Exam</li> <li>• Demonstration</li> <li>• Observation</li> <li>• Interviews / Questioning</li> </ul>	1 hour
	6.1 Prepare OSH requirements for compliance	<ul style="list-style-type: none"> <li>• Identification of required safety materials, tools and equipment</li> <li>• Handling of safety control resources</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Written Exam</li> <li>• Demonstration</li> <li>• Observation</li> <li>• Interviews / Questioning</li> </ul>	1 hour
	6.2 Perform tasks in accordance with relevant OSH policies and procedures	<ul style="list-style-type: none"> <li>• Discussion of General OSH Standards and Principles</li> <li>• Performing industry related work activities in accordance with OSH Standards</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Written Exam</li> <li>• Demonstration</li> <li>• Observation</li> <li>• Interviews / Questioning</li> </ul>	2 hours
8. Exercise Efficient and Effective Sustainable Practices in the Workplace	8.1 Identify the efficiency and effectiveness of resource utilization	<ul style="list-style-type: none"> <li>- Discussion on the process how Environmental Policies coherence is achieved</li> <li>• Discussion on Necessary Skills in response to changing environmental policies needs               <ul style="list-style-type: none"> <li>- Waste Skills</li> <li>- Energy Skills</li> <li>- Water Skills</li> <li>- Building Skills</li> <li>- Transport Skills</li> <li>- Material Skills</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Discussion</li> <li>• Simulation</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written Exam</li> <li>• Demonstration</li> <li>• Observation</li> <li>• Interviews / Questioning</li> </ul>	1 hour

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodology</b>	<b>Assessment Approach</b>	<b>Nominal Duration</b>
	8.2 Determine causes of inefficiency of resource utilization	<ul style="list-style-type: none"> <li>• Discussion of Environmental Protection and Resource Efficiency Targets</li> <li>• Analysis on the Relevant Work Procedure</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Discussion</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written Exam</li> <li>• Demonstration</li> <li>• Observation</li> <li>• Interviews / Questioning</li> </ul>	1 hr
	8.3 Convey inefficient and ineffective environmental practices	<ul style="list-style-type: none"> <li>• Identification of (re)training needs and usage of environment friendly methods and technologies</li> <li>• Identification of environmental corrective actions</li> <li>• Practicing Environment Awareness</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Discussion</li> <li>• Role Play</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written Exam</li> <li>• Demonstration</li> <li>• Observation</li> <li>• Interviews / Questioning</li> </ul>	1 hour
9. Practice Entrepreneurial Skills in the Workplace	9.1 Apply entrepreneurial workplace best practices	<ul style="list-style-type: none"> <li>• Case studies on Best entrepreneurial practices</li> <li>• Discussion on Quality procedures and practices</li> <li>• Case studies on Cost consciousness in resource utilization</li> </ul>	<ul style="list-style-type: none"> <li>• Case Study</li> <li>• Lecture/Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Case Study</li> <li>• Written Test</li> <li>• Interview</li> </ul>	1 hour
10.	9.2 Communicate entrepreneurial workplace best practices	<ul style="list-style-type: none"> <li>• Discussion on communicating entrepreneurial workplace best practices</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture/Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Written Test</li> <li>• Interview</li> </ul>	1 hour
	9.3 Implement cost-effective operations	<ul style="list-style-type: none"> <li>• Case studies on Preservation, optimization and judicious use of workplace resources</li> </ul>	<ul style="list-style-type: none"> <li>• Case Study</li> <li>• Lecture/Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Case Study</li> <li>• Written Test</li> <li>• Interview</li> </ul>	2 hours

**COMMON COMPETENCIES  
(24 HOURS)**

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

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
	2.3 Apply information in manual	<ul style="list-style-type: none"> <li>• Applying information from manuals</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration</li> <li>• Group discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration with oral questioning</li> </ul>	2 Hours
	2.4 Store Manual	<ul style="list-style-type: none"> <li>• Storing and maintaining manuals</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration</li> <li>• Group discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration with oral questioning</li> <li>• Practical and oral exam</li> </ul>	2 Hours
3. Perform mensurations and calculations	3.1 Select measuring instruments	<ul style="list-style-type: none"> <li>• Selecting measuring instruments</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture-demonstration</li> <li>• Group discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration with oral questioning</li> </ul>	2 Hours
	3.2 Carry out measurements and calculations	<ul style="list-style-type: none"> <li>• Interpreting formulas for volume, areas, perimeters of plane and geometric figures</li> <li>• Handling of measuring instruments</li> </ul>	<ul style="list-style-type: none"> <li>• Group discussion</li> <li>• Practical Lab</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Third party report</li> <li>• Demonstration with oral questioning</li> </ul>	2 Hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
4. Maintain tools and equipment	4.1 Check condition of tools and equipment	<ul style="list-style-type: none"> <li>• Maintaining tools and equipment</li> <li>• Handling of tools and equipment</li> <li>• Identifying tools and equipment defects</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture-demonstration</li> <li>• Group discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration with oral questioning</li> </ul>	3 Hours
	4.2 Perform basic preventive maintenance	<ul style="list-style-type: none"> <li>• Handling of tools and equipment</li> <li>• Performing preventive maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Simulation</li> <li>• Group discussion</li> <li>• Practical Lab</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Third party report</li> <li>• Demonstration with oral questioning</li> </ul>	3 Hours
	4.3 Store tools and equipment	<ul style="list-style-type: none"> <li>• Storing tools and equipment</li> <li>• Handling of tools and equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration</li> <li>• Group discussion</li> <li>• Practical Lab</li> </ul>	<ul style="list-style-type: none"> <li>• Practical exam</li> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	2 Hours

**CORE COMPETENCIES  
( 240 HOURS)**

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
1. Lay out reference lines	1.1 Prepare materials and tools	<ul style="list-style-type: none"> <li>• Receiving materials and handling tools at workplace</li> <li>• Identifying, checking and inspecting materials and tools</li> <li>• Practicing 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour
	1.2 Locate the offset line established by the line and grade/surveyor	<ul style="list-style-type: none"> <li>• Reading and understanding sketches and working drawings</li> <li>• Locating and verifying offset line</li> <li>• Practicing 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	2 hours
	1.3 Establish the required reference lines	<ul style="list-style-type: none"> <li>• Marking reference lines</li> <li>• Measuring distance between reference and offset lines</li> <li>• Practicing 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	4 hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
2. Fabricate, install and remove wooden formworks	2.1 Prepare materials, tools and equipment	<ul style="list-style-type: none"> <li>• Receiving materials and tools at workplace</li> <li>• Identifying, checking and inspecting materials, tools and equipment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1.5 hours
	2.2 Lay-out and cut dimension of form sheathing and stiffeners	<ul style="list-style-type: none"> <li>• Measuring and marking dimensions of sheathing and stiffeners</li> <li>• Cutting sheathing and stiffeners</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	8 hours
	2.3 Assemble and erect form panels and components	<ul style="list-style-type: none"> <li>• Fixing sheathing and stiffeners</li> <li>• Assembling form panels</li> <li>• Erecting form panels</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	12 hours
	2.4 Erect wooden scaffolds	<ul style="list-style-type: none"> <li>• Identifying types of ground condition and preparation</li> <li>• Selecting of baseplates and or mudsill/soleplate</li> <li>• Erecting scaffolds</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	8 hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
	2.5 Strip form panels and dismantle scaffold	<ul style="list-style-type: none"> <li>• Reading schedule of stripping</li> <li>• Understanding dismantling procedures for form panels and scaffold</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	4 hours
	2.6 Clean and store reusable form panels and components	<ul style="list-style-type: none"> <li>• Identifying and applying techniques in cleaning</li> <li>• Identifying reusable form panels</li> <li>• Inspecting of reusable form panels and components</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	2 hours
3. Install wooden door jamb, window frame and panels	3.1 Prepare materials and tools	<ul style="list-style-type: none"> <li>• Receiving materials and tools at workplace</li> <li>• Identifying, checking and inspecting materials and tools</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour
	3.2 Layout location	<ul style="list-style-type: none"> <li>• Measuring and marking dimensions</li> <li>• Checking accuracy of measurements and markings</li> <li>• Practicing 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	4 hours
	3.1 Fix door jamb and panels	<ul style="list-style-type: none"> <li>• Holding and fixing of jamb and panel</li> <li>• Checking squareness, levelness, plumbness and alignment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	12 hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
	3.2 Fix window frames and panels	<ul style="list-style-type: none"> <li>• Installing and fixing window frames and panel</li> <li>• Checking squareness, levelness, plumbness and alignment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	12 hours
	3.3 Perform housekeeping	<ul style="list-style-type: none"> <li>• Implementing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour
4. Install ceiling and wall frames and panels	4.4 Prepare materials, tools and equipment	<ul style="list-style-type: none"> <li>• Receiving materials, tools and equipment at workplace</li> <li>• Identifying, checking and inspecting materials, tools and equipment</li> <li>• Practicing 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour
	4.5 Erect movable scaffolds or working platforms	<ul style="list-style-type: none"> <li>• Identifying types of floor condition and preparation</li> <li>• Selecting of baseplates and or mudsill/soleplate</li> <li>• Erecting scaffolds</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	2 hours
	4.6 Layout ceiling elevation, wall location and position of framing system	<ul style="list-style-type: none"> <li>• Measuring and marking dimensions and locations</li> <li>• Checking accuracy of measurements and markings</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	4 hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
	4.7 Fix frames and panels	<ul style="list-style-type: none"> <li>• Fixing and installing frames and panel</li> <li>• Checking squareness, levelness, plumbness and alignment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	16 hours
	4.8 Dismantle movable scaffolds or working platforms	<ul style="list-style-type: none"> <li>• Understanding dismantling procedures for scaffolds</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	2 hours
	4.9 Perform housekeeping	<ul style="list-style-type: none"> <li>• Implementing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour
5. Fabricate and install wooden stairs	5.1 Prepare materials, tools and equipment	<ul style="list-style-type: none"> <li>• Receiving materials, tools and equipment at workplace</li> <li>• Identifying, checking and inspecting materials, tools and equipment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1.5 hours
	5.2 Erect scaffolds	<ul style="list-style-type: none"> <li>• Identifying types of ground condition and preparation</li> <li>• Selecting of baseplates and or mudsill/soleplate</li> <li>• Erecting scaffolds</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	2 hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
	5.3 Layout location and stair elevation	<ul style="list-style-type: none"> <li>• Measuring and marking dimensions</li> <li>• Checking accuracy of measurements and markings</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	8 hours
	5.4 Place wooden stringer, threads, handrails and baluster	<ul style="list-style-type: none"> <li>• Placing wooden stringer, threads, handrails and baluster</li> <li>• Checking squareness, levelness, plumbness and alignment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	16 hours
	5.5 Dismantle scaffold	<ul style="list-style-type: none"> <li>• Understanding dismantling procedures for scaffolds</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	2 hours
	3.6 Perform housekeeping	<ul style="list-style-type: none"> <li>• Implementing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour
6. Install wooden floor supports and panels	6.1 Prepare materials, tools and equipment	<ul style="list-style-type: none"> <li>• Receiving materials, tools and equipment at workplace</li> <li>• Identifying, checking and inspecting materials, hand tools and equipment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1.5 hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
	6.2 Erect scaffolds	<ul style="list-style-type: none"> <li>Identifying types of ground condition</li> <li>Selecting of baseplates or concrete blocks for different types of ground surface conditions</li> <li>Erecting scaffolds</li> <li>Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Written examination</li> <li>Demonstration with oral questioning</li> </ul>	2 hours
	6.3 Layout floor elevation, location and position of framing system	<ul style="list-style-type: none"> <li>Measuring and marking dimensions and elevation</li> <li>Checking accuracy of measurements and markings</li> <li>Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Written examination</li> <li>Demonstration with oral questioning</li> </ul>	4 hours
	6.4 Place wooden floor supports and panels,	<ul style="list-style-type: none"> <li>Placing wooden floor supports, joists, bridging and panels</li> <li>Checking squareness, levelness, plumbness and alignment</li> <li>Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Written examination</li> <li>Demonstration with oral questioning</li> </ul>	20 hours
	6.5 Dismantle scaffolds	<ul style="list-style-type: none"> <li>Understanding dismantling procedures for scaffolds</li> <li>Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Written examination</li> <li>Demonstration with oral questioning</li> </ul>	2 hours

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
	6.6 Perform housekeeping	<ul style="list-style-type: none"> <li>Implementing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Written examination</li> <li>Demonstration with oral questioning</li> </ul>	1 hour
7. Fabricate and install roofing system	7.1 Prepare materials, tools and equipment	<ul style="list-style-type: none"> <li>Receiving materials, tools and equipment at workplace</li> <li>Identifying, checking and inspecting materials, tools and equipment</li> <li>Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Written examination</li> <li>Demonstration with oral questioning</li> </ul>	1.5 hours
	7.2 Erect scaffolds	<ul style="list-style-type: none"> <li>Identifying types of ground condition</li> <li>Selecting of baseplates or concrete blocks for different types of ground surface conditions</li> <li>Erecting scaffolds</li> <li>Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Written examination</li> <li>Demonstration with oral questioning</li> </ul>	2 hours
	7.3 Layout truss location and elevation	<ul style="list-style-type: none"> <li>Measuring and marking dimensions and elevation</li> <li>Checking accuracy of measurements and markings</li> <li>Practicing 5S</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Written examination</li> <li>Demonstration with oral questioning</li> </ul>	4 hours

	7.4 Assemble wooden roof truss	<ul style="list-style-type: none"> <li>• Fabricating wooden roof truss assembly</li> <li>• Checking squareness, levelness, plumbness and alignment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	16 hours
	7.5 Place wooden roof truss assembly, purlins and fascia board	<ul style="list-style-type: none"> <li>• Placing wooden roof truss assembly, purlins and fascia board</li> <li>• Checking squareness, levelness, plumbness and alignment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	24 hours
	7.6 Place roofing sheets and accessories	<ul style="list-style-type: none"> <li>• Placing roofing sheets and accessories</li> <li>• Checking squareness, levelness, plumbness and alignment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	8 hours
	7.7 Dismantle scaffolds	<ul style="list-style-type: none"> <li>• Understanding dismantling procedures for scaffolds</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	2 hours
	7.8 Perform housekeeping	<ul style="list-style-type: none"> <li>• Implementing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Learning Activities</b>	<b>Methodologies</b>	<b>Assessment Methods</b>	<b>Nominal Duration</b>
8. Fabricate and install wooden cabinet	8.1 Prepare materials and tools	<ul style="list-style-type: none"> <li>• Receiving materials and tools at workplace</li> <li>• Identifying, checking and inspecting materials and tools</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour
	8.2 Assemble wooden cabinet	<ul style="list-style-type: none"> <li>• Assembling wooden cabinet</li> <li>• Checking squareness, levelness, plumbness and alignment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	16 hours
	8.3 Layout location	<ul style="list-style-type: none"> <li>• Measuring and marking dimensions</li> <li>• Checking accuracy of measurements and markings</li> <li>• Practicing 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour
	8.4 Place wooden cabinet	<ul style="list-style-type: none"> <li>• Placing wooden cabinet</li> <li>• Checking squareness, levelness, plumbness and alignment</li> <li>• Practicing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	3 hours
	8.5 Perform housekeeping	<ul style="list-style-type: none"> <li>• Implementing 3R and 5S</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Practical / Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Demonstration with oral questioning</li> </ul>	1 hour

## 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 classroom-based or in-center instruction uses 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 craftsman wherein the agreement may be written or oral and the master craftsman commits to training the apprentice in all the skills relevant to his or her trade over a significant period of time, usually between one and four years, while the apprentice commits to contributing productively to the work of the business. Training is integrated into the production process and apprentices learn by working alongside the experienced craftsman.
- 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).

### 3.3 TRAINEE ENTRY REQUIREMENTS

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

- A Holder of National Certificate Level I in Civil Works or at least Junior High School Level Completer or an Alternative Learning System (ALS) Certificate of Completion with grade 10 equivalent holder
- Can communicate both orally and in writing
- Can perform basic mathematical computation and mensuration

### 3.4 LIST OF TOOLS, EQUIPMENT AND MATERIALS

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

#### A. (Full Qualification)

<b>TOOLS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
10 pcs	Cross cut saw
5 pcs	Rip saw (medium)
10 pcs	Claw hammer 8 oz
10 pcs	Claw hammer 16 oz
10 pcs	Chalk line box
25 pcs	Pull-push rule (5 meters)
5 pcs	Crow bar
10 pcs	Steel square/ Carpenter's square
10 pcs	Tri- square
10 pcs	Level bar (36 in.)
5 pcs each	Screw driver (flat and Philips)
10 pcs	Nail bag
10 pcs	Nail Box
10 pcs each	Chisel, 1/4", 1/2", 3/4", 2"

<b>TOOLS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
10 pcs each	Socket wrench (19mm and 21m)
10 pcs	Plumb bob (medium)
10 pcs	Wood planer (2 in.)
2 pcs	Expansive bit
12 m	Level hose, 3/8 in diameter
5 pcs	Riveter
5 pcs	Tin snip
2 pcs	Tekscrew bit (10 mm)
1 pc	Sealant gun
10 pcs	Adjustable wrench

<b>EQUIPMENT</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
5 sets	H-frame scaffolds system and accessories
2 units	Portable electric drill (variable speed)
2 units	Portable electric planer
2 sets	Circular saw/jig saw with vacuum with vacuum

<b>MATERIALS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
3 sets each	Fabricated door and window jambs assembly
2 sets	Fabricated door panel, flushed (0.8 m x 2.1 m)
10 sets	Nylon string (10 meters)
25 pcs	Pencil
6 pcs	Loose pin hinges, 4"

<b>MATERIALS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
2 kg	Finishing wire nail, 1"
2 kg	Finishing wire nail, 1½ inches
1 kg	Finishing wire nail, 3" inches
2 kg	Common wire nail, 1"
2 kg	Common wire nail, 1½ inches
8 kg	Common wire nail, 2 inches
8 kg	Common wire nail, 3 inches
8 kg	Common wire nail, 4 inches
2 sets	Pulley, 4"
20 m	Nylon rope, 1" dia.
2 pcs.	Bolo

**FOR ROOFING**

<b>MATERIALS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
12 pcs	rough lumber 2"x4"x16'
15 pcs	rough lumber 2"x3"x8'
14 pcs	S2S lumber 2"x2"x10'
2 pcs	Fascia board 1"x8"x10'
1 pc	Gutter, gauge 24 x 16" x 8'
1 pc	Ridge roll, gauge 24 x 16" x 8'
2 pcs	End flashing, gauge 24 x 16" x 8'
50 pcs	Tekscrew with neoprene rubber (for wood) 3"
50 pcs	Umbrella nail

<b>MATERIALS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
2 pcs	Rib type roofing, gauge 26 x 4m
4 pcs	Corrugated type roofing, gauge 26 x 8'
1 tube	Silicon sealant
2 pcs.	Drill bit, 1/8"

**FOR CEILING ASSEMBLY**

<b>MATERIALS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
6 pcs	Plywood, 1/4"x4'x8'
12 pcs	Rough lumber, 2"x2"x8'
5 pcs	Wood cornice, 1"x3"x8'
16 pcs.	Butt hinges
8 pcs.	Concealed hinges
8 pcs	Catches
4 pcs	Cabinet door handle
100 pcs	Blind rivets (1/8"x3/8")
2 sets	Door knob and lock set

**FOR STAIR ASSEMBLY**

<b>MATERIALS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
2 pcs	Wooden hand rail
4 pcs	Wooden Baluster
2 pcs	Wooden planks 2"x 8"x 10'

**FOR WALL ASSEMBLY**

<b>MATERIALS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
10 pcs	Rough lumber 2"x 2"x8'
6 pcs	Plywood, 1/4"x4'x8'
2 pcs	Base board, 1"x4"x8'

**FOR FLOOR ASSEMBLY**

<b>MATERIALS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
5 pcs	Rough lumber 2"x 3"x10'
6 pcs	Rough lumber 2"x 4"x12'
2 pcs	Rough lumber 2"x 6"x10'
2 pcs	Marine Plywood, 3/4"x4'x8'

**FOR CABINET ASSEMBLY**

<b>MATERIALS</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
2 pcs	Kiln Dried Plywood, 3/4"x4'x8'
1 pint	Wood glue
4 pcs	S4S lumber (edging) 1"x1/2"x8'

<b>PERSONAL PROTECTIVE EQUIPMENT (PPE)</b>	
<b>QTY</b>	<b>DESCRIPTION</b>
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 carpentry 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	15 x 18	270
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
<b><u>TOTAL AREA</u></b>		<b>438</b>

### **3.4 TRAINERS' QUALIFICATION**

- Holder of National TVET Trainer Certificate Level I (NTTC Level I) in CARPENTRY NC II
- Must have completed the 40-Hour Construction Safety Training Course (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 at least two (2) years industry experience in Civil Works and one (1) year teaching experience in Carpentry

### **3.5 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 ARRANGEMENTS**

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

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

### **4.1 NATIONAL ASSESSMENT AND CERTIFICATION ARRANGEMENTS**

- 4.1.1 A National Certificate (NC) is issued when a candidate has demonstrated competence in all unit/s of competency of a qualification with a promulgated Training Regulations.
- 4.1.2 A Certificate of Competency (CoC) is issued by the Authority to individuals who were assessed as competent in a single unit or cluster of related units of competency.

**COC-1: Fabricate, install and remove of wooden formworks**

**COC-2: Install door and window assembly; install ceiling and wall system; and fabricate and install wooden cabinet**

- Layout reference lines
- Install wooden door jamb, window frame and panels
- Install ceiling and wall frames and panels
- Fabricate and install wooden cabinet

**COC-3: Fabricate and install wooden stairs and install floor system and roofing system**

- Layout reference lines
- Fabricate and install wooden stairs
- Install wooden floor supports and panels
- Fabricate and install wooden roofing system

- 4.1.3 Holders of valid National Certificate (NC) for BOTH Carpentry NC II **AND** Carpentry NC III will have their certificates automatically converted to the amended Carpentry NC II.
- 4.1.4 Holders of valid National Certificate (NC) for Carpentry NC II only **OR** Carpentry NC III only will have their certificates converted to the amended Carpentry NC II provided they present evidence of work experience of at least three (3) years.
- 4.1.5 Holders of valid Certificate of Competency (COC) under Carpentry NC II are required to undergo assessment for the amended Carpentry NC II.
- 4.1.6 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.
- 4.1.7 Recognition of Prior Learning (RPL). Candidates who have gained competencies through informal training, previous work or life experiences may apply for recognition in a particular qualification through competency assessment:
- 4.1.8 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)  
CARPENTRY NC II**

ANNEX A

**BASIC COMPETENCIES**

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)
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
<b>Participate in workplace communication</b>	<b>Work in Team Environment</b>	<b>Solve/address general workplace problems</b>	<b>Develop career and life decisions</b>	<b>Contribute to workplace innovation</b>	<b>Present relevant information</b>	<b>Practice occupational safety and health policies and procedures</b>	<b>Exercise efficient and effective sustainable practices in the workplace</b>	<b>Practice entrepreneurial skills in the workplace</b>

**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	Perform mensurations and calculations	Maintain tools and equipment
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**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
<b>Layout reference lines</b>	<b>Fabricate, install and remove wooden formworks</b>	<b>Install wooden door jamb, window frame and panels</b>	<b>Install ceiling and wall frames and panels</b>	<b>Fabricate and install wooden stairs</b>
<b>Install wooden floor supports and panels</b>	<b>Fabricate and install roofing system</b>	<b>Fabricate and install wooden cabinet</b>	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. Scaffold  
Is a temporary structure of poles and planks providing platform for workers to stand on while erecting or repairing a structure
2. Offset line  
a line or point placed at a given distance from a control line or point used to re-establish the original location.
3. Line and grade/Surveyor  
Professionals who determines and/or established boundary lines and/or elevations of building walls, foundations, utilities, etc.
4. Reference line  
A series of two or more points or line to serve as reference for measurement
5. Sheathing  
A layer of boards nailed to a stud or stiffeners to form a form panel
6. Stiffeners  
Are lumber connected to a stud where sheathings are to be fastened to
7. Form panels and components  
Are temporary boarding, sheathing or pan and form accessories used to produce the desired shape and size of concrete
8. Door jamb  
Is the vertical portion of the door frame onto which a door is secured, normally comes in set including header
9. Door panels  
A hinged or sliding rectangular panel secured to a door jamb for opening and closing the entrance to a room and/or building
10. Window frames  
Basic components are jambs, headers and sills.
11. Window panels  
Either wood, glass or other materials framed and secured to a window frames
12. Ceiling elevation  
Is the final height of the ceiling measured from the floor
13. Ceiling Joist  
The structural member in building construction where the ceiling board is fastened
14. Wall location  
Exact location where walls will be constructed

15. Position of framing system	Are the exact location of wall studs and noggins/braces as determined during layout
16. Steps elevation	Exact layout/position of the stair tread, riser and landing
17. Wooden stringer	The inclined member supporting the treads and the risers of the stair
18. Wooden tread	The horizontal part of a step
19. Wooden handrails	A rail running parallel with the inclination of the stairs that holds the balusters
20. Wooden baluster	Small posts supporting the handrail
21. Floor elevation	Exact location of the finished flooring measured from an established reference line
22. Wooden floor supports	Are wooden girders or stringers carrying the floor joists
23. Wooden floor joist	Is the structural member of a building that supports the wood flooring
24. Wooden floor panels	Are wood boards used for flooring
25. Truss location	Exact location where truss assembly will be positioned as determined on plan
26. Truss elevation	exact height of the truss measured from the floor line to the bottom of the chord
27. Wooden roof truss assembly	Comprises the girts, bottom chord, rafters, collar plate, center post, strut and block
28. Wooden purlins	Is a structural member of a roof framing system where the roofing sheets are fastened
29. Roofing sheets and accessories	Are different types of roof coverings including ridge rolls, gutters, flashings, etc.
30. Wooden cabinet	a box-shaped piece of furniture with doors and/or drawers for storing miscellaneous items. Some cabinets stand-alone while others are built in to a wall or are attached to it
31. Rough Lumber	Unplaned or undressed lumber
32. S2S and S4S	A lumber wherein the number connotes the smoothed/planed sides

33. 5S The five in a 5S workplace organizational and housekeeping methodology refers to five steps – sort, set in order, shine, standardize and sustain.
34. 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



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