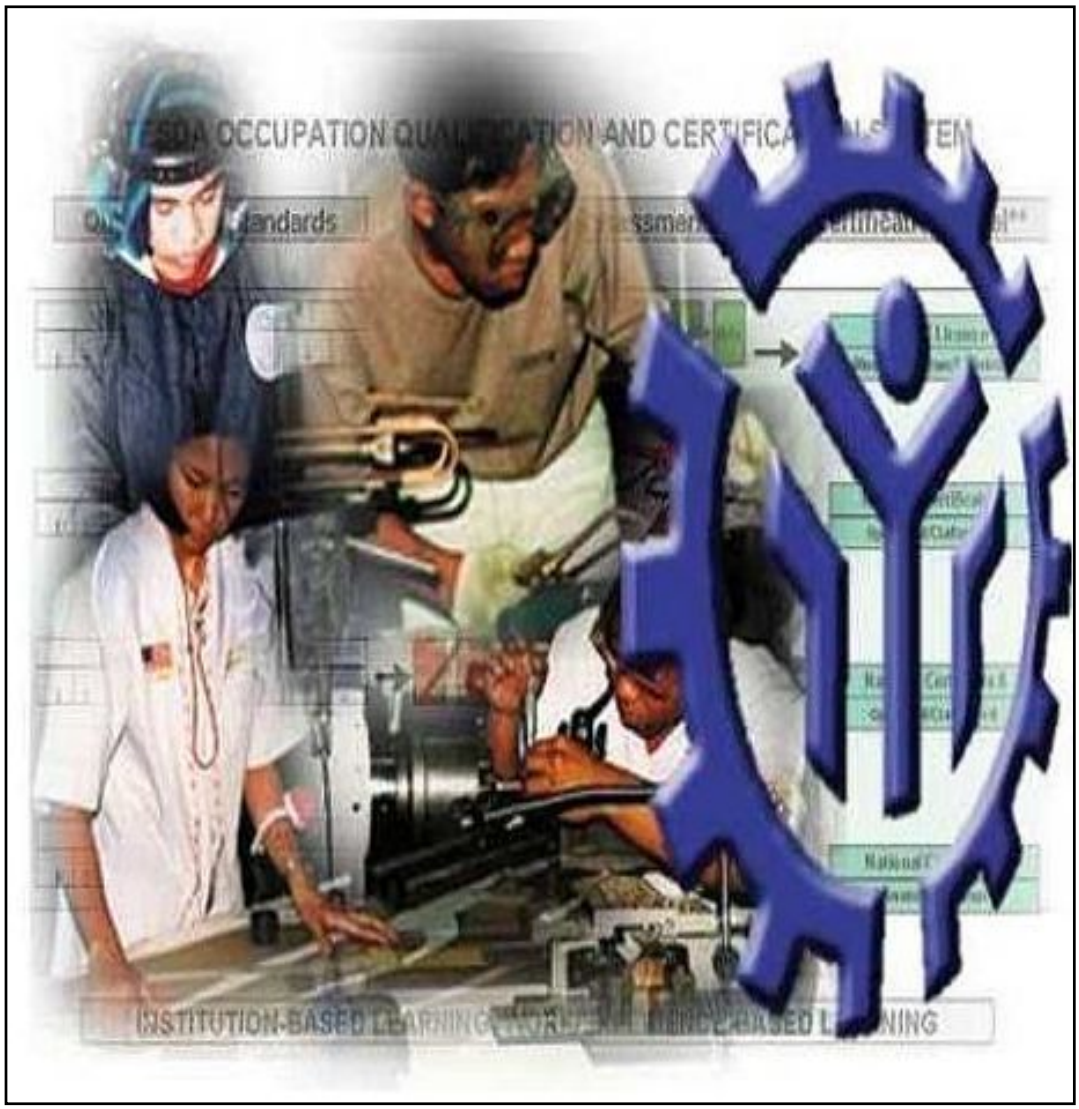
TRAINING REGULATIONS



CONSTRUCTION PAINTING NC II

CONSTRUCTION SECTOR

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

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CONSTRUCTION SECTOR

Construction Painting NC II

TRAINING REGULATIONS FOR CONSTRUCTION PAINTING NC II

SECTION 1 CONSTRUCTION PAINTING NC II QUALIFICATION

The Construction Painting NC II Qualification consists of competencies that a person must achieve that will enable him / her to prepare tools, painting materials and equipment; prepare surfaces (wood, concrete, drywall and metal) for painting and assembling access equipment; and perform painting work.

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

The Units of Competency comprising this Qualification include the following:

CODE NO.	BASIC COMPETENCIES
	Units of Competency
500311105	Participate in workplace communication
500311106	Work in a team environment
500311107	Practice career professionalism
500311108	Practice occupational health and safety procedures

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

CODE NO.	CORE COMPETENCIES
	Units of Competency
CON713357	Prepare tools, painting materials and equipment
CON713358	Prepare surface for painting
CON713359	Perform painting works
CON713360	Perform re-touching works

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

- Construction Painter

SECTION 2 COMPETENCY STANDARDS

This section gives the details of the contents of the core units of competency required in **CONSTRUCTION PAINTING NC II**.

BASIC COMPETENCIES

UNIT OF COMPETENCY : PARTICIPATE IN WORKPLACE COMMUNICATION

UNIT CODE : 500311105

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

ELEMENT	PERFORMANCE CRITERIA *Italicized terms* are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from ***appropriate sources*** 1.2 Effective questioning, active listening and speaking skills are used to gather and convey information 1.3 Appropriate ***medium*** 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 1.6 Defined workplace procedures for the location and ***storage*** of information are used 1.7 Personal interaction is carried out clearly and concisely	1.1 Effective communication 1.2 Different modes of communication 1.3 Written communication 1.4 Organizational policies 1.5 Communication procedures and systems 1.6 Technology relevant to the enterprise and the individual's work responsibilities	1.1 Follow simple spoken language 1.2 Perform routine workplace duties following simple written notices 1.3 Participate in workplace meetings and discussions 1.4 Complete work related documents 1.5 Estimate, calculate and record routine workplace measures 1.6 Ability to relate to people of social range in the workplace 1.7 Gather and provide information in response to workplace requirements

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Participate in workplace meetings and discussions	2.1 Team meetings are attended on time 2.2 Own opinions are clearly expressed and those of others are listened to without interruption 2.3 Meeting inputs are consistent with the meeting purpose and established ***protocols*** 2.4 ***Workplace interactions*** are conducted in a courteous manner 2.5 Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded to 2.6 Meetings outcomes are interpreted and implemented	2.1 Effective communication 2.2 Different modes of communication 2.3 Written communication 2.4 Organizational policies 2.5 Communication procedures and systems 2.6 Technology relevant to the enterprise and the individual's work responsibilities	2.1 Follow simple spoken language 2.2 Perform routine workplace duties following simple written notices 2.3 Participate in workplace meetings and discussions 2.4 Complete work related documents 2.5 Estimate, calculate and record routine workplace measures 2.6 Ability to relate to people of social range in the workplace 2.7 Gather and provide information in response to workplace requirements
3. Complete relevant work related documents	3.1 Range of ***forms*** relating to conditions of employment are completed accurately and legibly 3.2 Workplace data is recorded on standard workplace forms and documents	3.1 Effective communication 3.2 Different modes of communication 3.3 Written communication	3.1 Complete work related documents 3.2 Basic mathematical processes of addition, subtraction, division and multiplication

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	3.3 Basic mathematical processes are used for routine calculations 3.4 Errors in recording information on forms/ documents are identified and properly acted upon 3.5 Reporting requirements to supervisor are completed according to organizational guidelines	3.4 Organizational policies 3.5 Communication procedures and systems 3.6 Technology relevant to the enterprise and the individual's work responsibilities	3.3 Gather and provide information in response to workplace requirements

RANGE OF VARIABLES

VARIABLE	RANGE
1. Appropriate sources	1.1. Team members 1.2. Suppliers 1.3. Trade personnel 1.4. Local government 1.5. Industry bodies
2. Medium	2.1. Memorandum 2.2. Circular 2.3. Notice 2.4. Information discussion 2.5. Follow-up or verbal instructions 2.6. Face to face communication
3. Storage	3.1. Manual filing system 3.2. Computer-based filing system
4. Forms	4.1. Personnel forms, telephone message forms, safety reports
5. Workplace interactions	5.1. Face to face 5.2. Telephone 5.3. Electronic and two way radio 5.4. Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams
6. Protocols	6.1. Observing meeting 6.2. Compliance with meeting decisions 6.3. Obeying meeting instructions

EVIDENCE GUIDE

1. Critical aspects of Competency	***Assessment requires evidence that the candidate:*** 1.1. Prepared written communication following standard format of the organization 1.2. Accessed information using communication equipment 1.3. Made use of relevant terms as an aid to transfer information effectively 1.4. Conveyed information effectively adopting the formal or informal communication
2. Resource Implications	**The following resources should be provided:** 2.1. Fax machine 2.2. Telephone 2.3. Writing materials 2.4. Internet
3. Methods of Assessment	**Competency in this unit may be assessed through:** 3.1. Direct Observation 3.2. Oral interview and written test
4. Context for Assessment	4.1. Competency may be assessed individually in the actual workplace or through accredited institution

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

UNIT CODE : **500311106**

UNIT DESCRIPTOR : This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Describe team role and scope	1.1 The ***role and objective of the team*** is identified from available ***sources of information*** 1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources	1.1 Communication process 1.2 Team structure 1.3 Team roles 1.4 Group planning and decision making	1.1 Communicate appropriately, consistent with the culture of the workplace
2. Identify own role and responsibility within team	1.1 Individual role and responsibilities within the team environment are identified 1.2 Roles and responsibility of other team members are identified and recognized 1.3 Reporting relationships within team and external to team are identified	1.1 Communication process 1.2 Team structure 1.3 Team roles 1.4 Group planning and decision making	1.1 Communicate appropriately, consistent with the culture of the workplace

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Work as a team member	3.1 Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives 3.2 Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and ***workplace context*** 3.3 Observed protocols in reporting using standard operating procedures 3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members	3.1 Communication process 3.2 Team structure 3.3 Team roles 3.4 Group planning and decision making	3.1 Communicate appropriately, consistent with the culture of the workplace 3.2 Interacting effectively with others

RANGE OF VARIABLES

VARIABLE	RANGE
1. Role and objective of team	1.1. Work activities in a team environment with enterprise or specific sector 1.2. Limited discretion, initiative and judgement maybe demonstrated on the job, either individually or in a team environment
2. Sources of information	2.1. Standard operating and/or other workplace procedures 2.2. Job procedures 2.3. Machine/equipment manufacturer's specifications and instructions 2.4. Organizational or external personnel 2.5. Client/supplier instructions 2.6. Quality standards 2.7. OSH and environmental standards
3. Workplace context	3.1. Work procedures and practices 3.2. Conditions of work environments 3.3. Legislation and industrial agreements 3.4. Standard work practice including the storage, safe handling and disposal of chemicals 3.5. Safety, environmental, housekeeping and quality guidelines

EVIDENCE GUIDE

1. Critical aspects of Competency	**Assessment requires evidence that the candidate:** 1.1. Operated in a team to complete workplace activity 1.2. Worked effectively with others 1.3. Conveyed information in written or oral form 1.4. Selected and used appropriate workplace language 1.5. Followed designated work plan for the job 1.6. Reported outcomes
2. Resource Implications	**The following resources should be provided:** 2.1. Access to relevant workplace or appropriately simulated environment where assessment can take place 2.2. Materials relevant to the proposed activity or tasks
3. Methods of Assessment	**Competency in this unit may be assessed through:** 3.1. Observation of the individual member in relation to the work activities of the group 3.2. Observation of simulation and or role play involving the participation of individual member to the attainment of organizational goal 3.3. Case studies and scenarios as a basis for discussion of issues and strategies in teamwork
4. Context for Assessment	4.1. Competency may be assessed in workplace or in a simulated workplace setting 4.2. Assessment shall be observed while task are being undertaken whether individually or in group

UNIT OF COMPETENCY : PRACTICE CAREER PROFESSIONALISM

UNIT CODE : 500311107

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in promoting career growth and advancement.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Integrate personal objectives with organizational goals	1.1 Personal growth and work plans are pursued towards improving the qualifications set for the profession 1.2 Intra- and interpersonal relationships are maintained in the course of managing oneself based on performance ***evaluation*** 1.3 Commitment to the organization and it's goal is demonstrated in the performance of duties	1.1 Work values and ethics (Code of Conduct, Code of Ethics, etc.) 1.2 Company policies 1.3 Company operations, procedures and standards 1.4 Fundamental rights at work including gender sensitivity 1.5 Personal hygiene practices	1.1 Appropriate practice of personal hygiene 1.2 Intra and Interpersonal skills 1.3 Communication skills
2. Set and meet work priorities	2.1 Competing demands are prioritized to achieve personal, team and organizational goals and objectives. 2.2 ***Resources*** are utilized efficiently and effectively to manage work priorities and commitments 2.3 Practices along economic use and maintenance of equipment and facilities are followed as per established procedures	2.1 Work values and ethics (Code of Conduct, Code of Ethics, etc.) 2.2 Company policies 2.3 Company operations, procedures and standards 2.4 Fundamental rights at work including gender sensitivity 2.5 Personal hygiene practices *2.6* Time management	2.1 Appropriate practice of personal hygiene 2.2 Intra and Interpersonal skills 2.3 Communication skills *2.4* Managing goals and time

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Maintain professional growth and development	3.1 ***Trainings and career opportunities*** are identified and availed of based on job requirements 3.2 ***Recognitions*** are sought/received and demonstrated as proof of career advancement 3.3 ***Licenses and/or certifications*** relevant to job and career are obtained and renewed	3.1 Work values and ethics (Code of Conduct, Code of Ethics, etc.) 3.2 Company policies 3.3 Company operations, procedures and standards 3.4 Fundamental rights at work including gender sensitivity 3.5 Personal hygiene practices	3.1 Appropriate practice of personal hygiene 3.2 Intra and Interpersonal skills 3.3 Communication skills

RANGE OF VARIABLES

VARIABLE	RANGE
1. Evaluation	1.1 Performance Appraisal 1.2 Psychological Profile 1.3 Aptitude Tests
2. Resources	2.1 Human 2.2 Financial 2.3 Technology 2.3.1 Hardware 2.3.2 Software
3. Trainings and career opportunities	3.1 Participation in training programs 3.1.1 Technical 3.1.2 Supervisory 3.1.3 Managerial 3.1.4 Continuing Education 3.2 Serving as Resource Persons in conferences and workshops
4. Recognitions	4.1 Recommendations 4.2 Citations 4.3 Certificate of Appreciations 4.4 Commendations 4.5 Awards 4.6 Tangible and Intangible Rewards
5. Licenses and/or certifications	5.1 National Certificates 5.2 Certificate of Competency 5.3 Support Level Licenses 5.4 Professional Licenses

EVIDENCE GUIDE

1. Critical aspects of Competency	**Assessment requires evidence that the candidate:** 1.1 Attained job targets within key result areas (KRAs) 1.2 Maintained intra - and interpersonal relationship in the course of managing oneself based on performance evaluation 1.3 Completed trainings and career opportunities which are based on the requirements of the industries 1.4 Acquired and maintained licenses and/or certifications according to the requirement of the qualification
2. Resource Implications	**The following resources should be provided:** 2.1 Workplace or assessment location 2.2 Case studies/scenarios
3. Methods of Assessment	**Competency in this unit may be assessed through:** 3.1 Portfolio Assessment 3.2 Interview 3.3 Simulation/Role-plays 3.4 Observation 3.5 Third Party Reports 3.6 Exams and Tests
4. Context for Assessment	4.1 Competency may be assessed in the work place or in a simulated work place setting

UNIT OF COMPETENCY : PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES

UNIT CODE : 500311108

UNIT DESCRIPTOR : This unit covers the outcomes required to comply with regulatory and organizational requirements for occupational health and safety.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify hazards and risks	1.1 ***Safety regulations*** and workplace safety and hazard control practices and procedures are clarified and explained based on organization procedures 1.2 ***Hazards/risks*** in the workplace and their corresponding indicators are identified to minimize or eliminate risk/exposure to ~~co-~~ workers, workplace and environment in accordance with organization's procedures 1.3 ***Contingency measures*** during workplace accidents, fire and other emergencies are recognized and established in accordance with organization procedures	1.1 OSH procedures and practices and regulations 1.2 Personal hygiene practices 1.3 Hazards/risks identification and control 1.4 Organization safety and health protocol 1.5 Safety consciousness 1.6 Health consciousness	1.1 Practice of safety and health procedures and personal hygiene 1.2 Hazards/risks identification and control skills 1.3 Interpersonal skills 1.4 Communication skills

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2 Evaluate hazards and risks	2.1 Terms of maximum tolerable limits which when exceeded will result in harm or damage are identified based on threshold limit values (TLV) 2.2 Effects of the hazards are determined 2.3 OSH issues and/or concerns and identified safety hazards are reported to designated personnel in accordance with workplace requirements and relevant workplace OSH legislation	2.1 OSH procedures and practices and regulations 2.2 Personal hygiene practices 2.3 Hazards/risks identification and control 2.4 Threshold Limit Value -TLV 2.5 OSH indicators 2.6 Organization safety and health protocol 2.7 Safety consciousness 2.8 Health consciousness	2.1 Practice of personal hygiene 2.2 Hazards/risks identification and control skills 2.3 Interpersonal skills 2.4 Communication skills
3 Control hazards and risks	3.1 Occupational Safety and Health (OSH) procedures for controlling hazards/risks in workplace are consistently followed 3.2 Procedures for dealing with workplace accidents, fire and emergencies are followed in accordance with organization OSH policies 3.3 ***Personal protective equipment (PPE)*** is correctly used in accordance with organization OSH procedures and practices	3.1 OSH procedures and practices and regulations 3.2 PPE types and uses 3.3 Personal hygiene practices 3.4 Hazards/risks identification and control 3.5 OSH indicators 3.6 Organization safety and health protocol 3.7 Safety consciousness 3.8 Health consciousness	3.1 Practice of personal hygiene 3.2 Hazards/risks identification and control skills 3.3 Interpersonal skills 3.4 Communication skills

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	3.4 Appropriate assistance is provided in the event of a workplace emergency in accordance with established organization protocol		
4 Maintain OSH awareness	4.1 ***Emergency-related drills and trainings*** are participated in as per established organization guidelines and procedures 4.2 ***OSH personal records*** are completed and updated in accordance with workplace requirements	4.1 OSH procedures and practices and regulations 4.2 PPE types and uses 4.3 Personal hygiene practices 4.4 OSH indicators 4.5 Organization safety and health protocol 4.6 Safety consciousness 4.7 Health consciousness	4.1 Practice of personal hygiene 4.2 Interpersonal skills 4.3 Communication skills

RANGE OF VARIABLES

VARIABLE	RANGE
1. Safety and Health Regulations	May include but are not limited to: 1.1 Clean Air Act 1.2 National Building Code 1.3 Philippine Electrical Code 1.4 Fire Code of the Philippines 1.5 Waste management statutes and rules 1.6 Philippine Occupational Safety and Health Standards 1.7 DOLE OSH related issuances ECC regulations
2. Hazards/Risks	May include but are not limited to: 2.1 Physical hazards – impact, illumination, pressure, noise, vibration, temperature, radiation 2.2 Biological hazards - bacteria, viruses, plants, parasites, mites, molds, fungi, insects 2.3 Chemical hazards – dusts, fibers, mists, fumes, smoke, gasses, vapors 2.4 Ergonomics • Physiological factors - over exertion/ excessive force, awkward/static positions, fatigue, direct pressure, varying metabolic cycles • Psychological factors - monotony, personal relationship, work out cycle

VARIABLE	RANGE
3. Contingency measures	May include but are not limited to: 3.1 Evacuation/ Rescue 3.2 Isolation 3.3 Decontamination 3.4 (Calling designed) emergency personnel
4. PPE	May include but are not limited to: 4.1 Mask 4.2 Gloves 4.3 Goggles 4.4 Hair Net/cap/bonnet 4.5 Face mask/shield 4.6 Ear muffs 4.7 Apron/Gown/coverall/jump suit 4.8 Anti-static suits 4.9 Safety Helmet 4.10 Safety Shoes 4.11Body Harness and lifeline
5. Emergency-related drills and training	5.1 Fire drill 5.2 Earthquake drill 5.3 Basic life support/CPR 5.4 First aid 5.5 Spillage control 5.6 Decontamination of chemical and toxic 5.7 Disaster preparedness/management
6. OSH personal records	6.1 Medical/Health records 6.2 Incident reports 6.3 Accident reports 6.4 OSH-related training completed

EVIDENCE GUIDE

1. Critical aspects of Competency	**Assessment requires evidence that the candidate:** 1.1 Explained clearly established workplace safety and hazard control practices and procedures 1.2 Identified hazards/risks in the workplace and its corresponding indicators in accordance with company procedures 1.3 Recognized contingency measures during workplace accidents, fire and other emergencies 1.4 Identified terms of maximum tolerable limits based on threshold limit value- TLV. 1.5 Followed Occupational Safety and Health (OSH) procedures for controlling hazards/risks in workplace 1.6 Used Personal Protective Equipment (PPE) in accordance with company OSH procedures and practices 1.7 Completed and updated OSH personal records in accordance with workplace requirements
2. Resource Implications	**The following resources should be provided:** 2.1 Workplace or assessment location 2.2 OSH personal records 2.3 PPE 2.4 Health records
3. Methods of Assessment	**Competency may be assessed through:** 3.1 Portfolio Assessment 3.2 Interview 3.3 Case Study/Situation
4. Context for Assessment	4.1 Competency may be assessed in the work place or in a simulated work place setting

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 (plumbing) materials and tools in various workplace settings.

ELEMENT	PERFORMANCE CRITERIA *Italicized* terms are elaborated in the Range of Variable	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify materials	1.1 ***Materials*** are identified as per job requirements 1.2 Quantity and ***description of materials*** 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 construction painting materials and accessories 1.3 Types and uses of construction painting tools	1.1 Identifying tools according to the job requirements 1.2 Identifying materials and accessories according to the job requirements
2. Prepare requisition of materials	*2.1* ***Materials and tools*** needed are requested according to the identified requirements 2.2 Request is done as per ***company standard operating procedures (SOP)*** 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 construction painting materials and tools 2.3 Material take-off 2.4 Requisition procedures	2.1 Preparing material take-off 2.2 Requesting materials and tools

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** terms are elaborated in the Range of Variable	REQUIRED KNOWLEDGE	REQUIRED SKILLS
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. Materials and Tools	May include: 1.1 Electrical supplies 1.2 Structural 1.3 Plumbing 1.4 Welding/pipefitting 1.5 Carpentry 1.6 Masonry
2. Description of Materials and Tools	May include: 2.1 Brand name 2.2 Size 2.3 Capacity 2.4 Kind of application
3. Company standard procedures	May include: 3.1 Job order 3.2 Requisition slip 3.3 Borrower slip

EVIDENCE GUIDE

1. Critical aspects of competency	**Assessment requires evidence that the candidate:** 1.1 Listed materials and tools according to quantity and job requirements 1.2 Requested materials and tools according to the list prepared and as per company SOP 1.3 Inspected issued materials and tools as per quantity and job specifications 1.4 Tools provided with appropriate safety devices
2. Resource implications	**The following resources should be provided:** 2.1 Workplace location 2.2 Materials relevant to the unit of competency 2.3 Technical plans, drawings and specifications relevant to the activities
3. Methods of assessment	**Competency in this unit must be assessed through:** 3.1 Direct observation and oral questioning
4. Context of assessment	4.1 Competency may be assessed in the workplace or in a simulated workplace 4.2 Competency assessment must be undertaken in accordance with the endorsed TESDA assessment guidelines

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

UNIT CODE : CON311201

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

ELEMENT	PERFORMANCE CRITERIA *Italicized* terms are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify and access specification/manuals	1.1 Appropriate manuals are identified and accessed as per job requirements 1.2 Version and date of manual are checked to ensure that correct specification and procedures are identified	1.1 Types of manuals used in construction painting 1.2 Identification of symbols used in the manuals	1.1 Identifying manuals and specifications 1.2 Accessing information and data
2. Interpret manuals	1.3 Relevant sections, chapters of specifications/ manuals are located in relation to the work to be conducted 1.4 Information and procedure in the manual are interpreted in accordance with industry practices	2.1 Types of manuals used in construction painting 2.2 Types of symbols used in manuals 2.3 System of measurements 2.4 Unit conversion	2.1 Interpreting symbols and specifications 2.2 Accessing information and data 2.3 Applying conversion of units of measurements

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** terms are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Apply information in manual	3.1 ***Manual*** 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 construction painting 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 construction painting 4.2 Manual storing and maintaining procedures	4.1 Storing and maintaining manuals

RANGE OF VARIABLES

VARIABLE	RANGE
1. Procedures, Specifications and Manuals of Instructions	May include: 1.1 Manufacturer's Specification Manual 1.2 Repair Manual 1.3 Maintenance Procedure Manual 1.4 Periodic Maintenance Manual

EVIDENCE GUIDE

1. Critical aspects of competency	**Assessment requires that the candidate:** 1.1 Identified and accessed specification/manuals as per job requirements 1.2 Interpreted manuals in accordance with industry practices 1.3 Applied information in manuals according to the given task 1.4 Stored manuals in accordance with company requirements
2. Resource implications	**The following resources should be provided:** 2.1 All manuals/catalogues relative to construction sector
3. Methods of assessment	**Competency should be assessed through:** 3.1 Direct observation 3.2 Questions/interview Assessment of underpinning knowledge and practical skills may be combined
4. Context of assessment	4.1 Competency assessment must be undertaken in accordance with the endorsed TESDA assessment guidelines 4.2 Assessment may be conducted in the workplace or a simulated environment

UNIT OF COMPETENCY: PERFORM MENSURATIONS AND CALCULATIONS

UNIT CODE : CON311203

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

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

ELEMENT	PERFORMANCE CRITERIA ***Italicized** terms* are elaborated in the Range of Variable	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Carry out measurements and calculations	2.1 Accurate ***measurements*** are obtained according to job requirements 2.2 Alternative measuring tools are used without sacrificing cost and quality of work 2.3 ***Calculations*** needed to complete work tasks are performed using the four basic process of addition (+), subtraction (-), multiplication (x) and division (/) 2.4 Calculations involving fractions, percentages and mixed numbers are used to complete workplace tasks 2.5 Numerical computation is self-checked and corrected for accuracy 2.6 Instruments are read to the limit of accuracy of the tool 2.7 Systems of measurement identified and converted according to job requirements/ISO 2.8 Workpieces are measured according to job requirements	2.9 Measurements • Linear measurement • Geometrical measurement 2.3 Trade Mathematics • Unit conversion • Ratio and proportion • 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 Dial gauge with mag, std. 2.4 Straight edge 2.5 Thickness gauge 2.6 Torque gauge 2.7 Small hole gauge 2.8 Telescopic gauge 2.9 Try-square 2.10 Protractor 2.11 Combination gauge 2.12 Steel rule 2.13 Voltmeter 2.14 Ammeter 2.15 Mega ohmeter 2.16 Kilowatt hour meter 2.17 Gauges 2.18 Thermometers

VARIABLE	RANGE
3. Measurements and calculations	May include: 3.1 Linear 3.2 Volume 3.3 Area 3.4 Wattage 3.5 Voltage 3.6 Resistance 3.7 Amperage 3.8 Frequency 3.9 Impedance 3.10Conductance 3.11Capacitance 3.12Displacement 3.13Inside diameter 3.14Circumference 3.15Length 3.16Thickness 3.17Outside diameter 3.18Taper 3.19Out of roundness 3.20Oil clearance 3.21End play/Thrust clearance

EVIDENCE GUIDE

1. Critical aspects of competency	**Assessment requires that the candidate:** 1.1 Selected and prepared appropriate measuring instruments in accordance with job requirements 1.2 Performed measurements and calculations according to job requirements/ ISO
2. Resource implications	**The following resources should be provided:** 2.1 Workplace location 2.2 Problems to solve 2.3 Measuring instrument appropriate to carry out tasks 2.4 Instructional materials relevant to the propose activity Assessment of underpinning knowledge and practical skills may be combined
3. Methods of assessment	**Competency should be assessed through:** 3.1 Actual demonstration 3.2 Direct observation 3.3 Written test/questioning related to underpinning knowledge
4. Context of assessment	4.1 Competency assessment may occur in workplace or any appropriate simulated environment 4.2 Assessment shall be observed while task are being undertaken whether individually or in group 4.3 Competency assessment must be undertaken in accordance with the TESDA assessment guidelines

UNIT OF COMPETENCY: MAINTAIN TOOLS AND EQUIPMENT

UNIT CODE : CON311204

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

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** terms are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Check condition of tools and equipment	1.1 ***Materials, tools and equipmen***t 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 ***PPE*** are checked in accordance with manufacturer's instructions	1.1 SAFETY PRACTICES 1.1.1 Use of PPE 1.1.2 Handling of tools and equipment 1.1.3 Good housekeeping 1.2 MATERIALS, TOOLS AND EQUIPMENT 1.2.1 Types and uses of lubricants 1.2.2 Types and uses of cleaning materials 1.2.3 Types and uses of construction painting tools 1.2.4 Types and uses of construction painting equipment 1.3 Operational conditions of construction painting tools and equipment 1.4 Construction painting tools and equipment defects	1.1 Maintaining tools and equipment 1.2 Handling of tools and equipment 1.3 Identifying tools and equipment defects

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** terms are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Perform basic preventive maintenance	2.1 Appropriate lubricants are identified according to types of equipment 2.2 Tools and equipment are lubricated according to preventive maintenance schedule or manufacturer's specifications 2.3 Measuring instruments are checked and calibrated in accordance with manufacturer's instructions 2.4 Tools are cleaned and lubricated according to standard procedures 2.5 Defective instruments, equipment and accessories are inspected and replaced according to manufacturer's specifications 2.6 Tools are inspected, repaired and replaced after use 2.7 Work place is cleaned and kept in safe state in line with Occupational Safety and Health (OSHS)	2.1 SAFETY PRACTICES 2.1.1 Use of PPE 2.1.2 Handling of tools and equipment 2.1.3 Good housekeeping 2.2 MATERIALS, TOOLS AND EQUIPMENT 2.2.1 Types and uses of lubricants 2.2.2 Types and uses of cleaning materials 2.3 PREVENTIVE MAINTENANCE 2.3.1 Methods and techniques 2.3.2 Procedures	2.1 Handling of tools and equipment 2.2 Performing preventive maintenance

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** terms are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Store tools and equipment	3.1 Inventory of tools, instruments and equipment are conducted and recorded as per company practices 3.2 Tools and equipment are stored safely in appropriate locations in accordance with manufacturer's specifications or company procedures	3.1 SAFETY PRACTICES 3.1.1 Use of PPE 3.1.2 Handling of tools and equipment 3.1.3 Storing procedures and techniques 3.1.4 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, rip saw Boring tools - auger, brace, grinlet, hand drill Holding tools - vise grip, C-clamp, bench vise Threading tools - die and stock, taps 2.2 Measuring instruments/equipment
3. PPE	May include: 3.1 Goggles 3.2 Gloves 3.3 Safety shoes 3.4 Aprons/Coveralls
4. Forms	May include: 4.1 Maintenance schedule forms 4.2 Requisition slip 4.3 Inventory Form 4.4 Inspection Form 4.5 Procedures

EVIDENCE GUIDE

1. Critical aspects of competency	**Assessment requires that the candidate:** 1.1 Selected and used appropriate processes, tools and equipment to carry out task 1.2 Identified functional and non-functional tools and equipment 1.3 Checked, lubricated and calibrated tools, equipment and instruments according to manufacturer's specifications 1.4 Replaced defective tools, equipment and their accessories 1.5 Observed and applied safe handling of tools and equipment and safety work practices 1.6 Prepared and submitted inventory report, where applicable 1.7 Maintained workplace in accordance with OSHA regulations 1.8 Stored tools and equipment safely in appropriate locations and in accordance with company practices
2. Resource implications	**The following resources should be provided:** 2.1 Workplace 2.2 Maintenance schedule 2.3 Maintenance materials, tools and equipment relevant to the proposed activity/task
3. Methods of assessment	**Competency should be assessed through:** 3.1 Direct observation 3.2 Written test/questioning relevant to Underpinning knowledge
4. Context of assessment	4.1 Competency assessment may occur in workplace or any appropriate simulated environment 4.2 Competency assessment must be undertaken in accordance with the endorsed TESDA assessment guidelines

CORE COMPETENCIES

UNIT OF COMPETENCY : PREPARE TOOLS, PAINTING MATERIALS AND EQUIPMENT

UNIT CODE : CON713357

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in identifying, preparing paint and associated materials such as base coat (primer), putty, finish coat, tools and other painting equipment.

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify painting materials, tools and equipment according to surface	1.1 Scope of work is secured and interpreted from appropriate personnel and/or working drawings 1.2 Appropriate ***PPE*** is identified in line with job requirements and OSHA specifications. 1.3 ***Painting materials/ consumables, tools and equipment*** are selected according to ***surface*** consistent with job requirements, plans and/or paint schedules, and Occupational Safety and Health Standards (OSHS) 1.4 Protective covering on floors and fixtures are installed 1.5 ***Access equipment*** are assembled consistent with detailed plans and manufacturer's specifications following safety precautions	1.1 Materials use and Specifications 1.1.1 Types of paint 1.1.2 Types of thinner/reducer 1.1.3 Grades of sand paper 1.1.4 Types of putty 1.1.5 Types of paint brush and roller/tray 1.1.6 Types of colorant 1.1.7 Other materials for surface preparation 1.2 Tools and equipment: Uses and specifications 1.3 Safety use of access equipment 1.4 Materials storage 1.5 DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 1.6 5S 1.7 3Rs	1.1 Identifying painting materials, tools and equipment 1.2 Following 5S and workplace safety 1.3 Punchlisting 1.4 Following 3R practices

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Prepare paints and requirements	2.1 Paints are prepared consistent with job requirements and in line with standard operating procedures. 2.2 Appropriate PPE is used in line with job requirements. 2.3 ***Unexpected situations*** are responded to in line with company rules and regulations 2.4 Safety precautions are observed during preparation of paint materials.	2.1 Materials uses and specifications 2.1.1 Types of paint 2.1.2 Types of thinner/reducer 2.1.3 Types of colorant 2.1.4 Grades of sand paper 2.1.5 Types of putty 2.1.6 Types of paint brush and roller/tray 2.1.7 Other materials for surface preparation 2.2 Tools and equipment : Uses and specifications 2.3 Safety use of access equipment 2.4 Materials storage 2.5 DOLE Department Order No. 13 s. 1998 Guidelines Governing occupational Safety and Health in the Construction Industry 2.6 5S 2.7 3Rs	2.1 Preparing painting materials, tools and equipment according to surface: 2.1.1 Concrete 2.1.2 Steel 2.1.3 Wood 2.1.4 Drywall 2.2 Following 5S and workplace safety 2.3 Following 3R practices

RANGE OF VARIABLES

VARIABLE	RANGE
1. Painting materials/ consumables	May include: 1.1 Base coat materials 1.1.1 Metal primer 1.1.2 Wood primer 1.1.3 Concrete sealer 1.1.4 Drywall sealer 1.2 Solvent- based paint 1.3 Water-based paint 1.4 Tinting/colorant 1.5 Thinners/Reducer 1.6 Empty cans 1.7 Rust converter for rusted surfaces 1.8 Putty 1.9 Top/Intermediate/Finishing coat 1.10Concrete neutralizer 1.11Rags 1.12pH paper 1.13Water/Solvent 1.14Cleaning agent 1.15Sand paper 1.16Tapes and covers 1.17Paint brush 1.18Roller brush
2. Tools and equipment	May include : <u>Tools</u> 2.1 Mixing stick 2.2 Spatula/Putty knife (Paleta) 2.3 Screw driver /Back wrench 2.4 Hammer and Nail set (Punsol) 2.5 Color charts 2.6 Spray/Mortar gun 2.7 Steel brush or Cap brush 2.8 Paint mixer 2.9 Sanding machine 2.10Roller stick 2.11Rope and pulley <u>Equipment</u> 2.12Air compressor 2.13Access equipment (e.g Scaffold/Gondola, Ladder) 2.14Airless Spray Unit 2.15Pressure Washer

VARIABLE	RANGE
3. Surfaces	3.1 Concrete 3.2 Steel 3.3 Wood 3.4 Drywall
4. Access equipment	May include: 4.1 Scaffolding 4.2 Gondola 4.3 Ladders
5. PPE	May include: 5.1 Body harness/Safety belt 5.2 Gloves (Chemical resistant) 5.3 Safety shoes 5.4 Hard hat 5.5 Respirator/Dust mask 5.6 Goggles 5.7 Overall coat and pants 5.8 Ear muff/plug 5.9 Lifeline and anchorage 5.10 Reflectorized vest
6. Unexpected situations	May include: 6.1 Damage to materials and properties 6.2 Injury to personnel 6.3 Force majeure (Acts of God)

EVIDENCE GUIDE

1. Critical aspects of competency	**Assessment requires evidence that the candidate:** 1.1 Selected and prepared painting materials, tools and equipment 1.2 Identified, selected and used appropriate PPE 1.3 Interpreted scope of work 1.3 Identified, prepared and stored paints 1.4 Demonstrated compliance with safety regulations
2. Resource Implications	**Things necessary to conduct method of assessment:** 1.4 Workplace location 1.5 Tools and equipment appropriate to work processes 1.6 Materials relevant to the proposed activity 1.7 Working drawings, instructions and specifications relevant to the task 1.8 Appropriate PPE
3. Methods of Assessment	**Competency in this unit must be assessed through:** 3.1 Observation of practical demonstration of skills 3.2 Oral questioning related to underpinning knowledge
4 Context for Assessment	4.1 Competency may be assessed in the workplace or in a simulated workplace setting

UNIT OF COMPETENCY : **PREPARE SURFACE FOR PAINTING**

UNIT CODE : **CON713358**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to prepare surface area for painting.

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Inspect surface	1.1 ***Surfaces*** are Inspected in line with job requirements and standard operating procedures. 1.2 ***Foreign matters*** are checked according to job requirements. 1.3 Appropriate ***PPE*** is used according to job requirements 1.4 ***Inspection report*** is submitted to appropriate personnel according to job requirements	1.1 Safety and maintenance 1.1.1 Safety rules and regulations 1.1.2 Fire prevention 1.1.3 First aid treatment 1.1.4 Handling and care of tools, materials and equipment 1.2 Trade Theory 1.2.1 Grades of sandpaper 1.2.2 Paint defects and Troubleshooting 1.2.3 Surface condition 1.3 Tools and equipment 1.3.1 Handtools (spatula, hammer, nail set) 1.3.2 pH level measurement tools 1.4 Methods and procedures 1.4.1 Surface Inspection 1.4.2 Paint compatibility 1.5 5S 1.6 DOLE Department Order No. 13 s.1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 1.7 3Rs	1.1 Following safety and maintenance procedures 1.2 Installing access equipment 1.3 Following 5S 1.4 Preparing inspection and completion reports 1.5 Following 3R practices

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Prepare new or bare surface	2.1 ***Surface preparation*** is performed in accordance with job specifications and manufacturer 's recommendations 2.2 Proper tool usage is observed in line with job requirements. 2.3 ***Unexpected situations*** are responded to according to company rules and regulations 2.4 Appropriate PPE is used according to job requirements. 2.5 ***Worksite is cleaned*** and kept in safe state and in accordance with Occupational Safety and Health Standards (OSHS)	2.1 Safety and maintenance 2.1.1 Safety rules and regulations 2.1.2 Fire prevention 2.1.3 First aid treatment 2.1.4 Handling and care of tools, materials and equipment 2.2 Trade theory 2.2.1 Grades of sandpaper 2.2.2 Paint defects and troubleshooting 2.2.3 Various paint remover and cleaner 2.2.4 Surface treatments (e.g. skim coat, joint compounds) 2.3 Tools and equipment 2.3.1 Sander 2.3.2 Compressor 2.3.3 Handtools (spatula, hammer, nail set) 2.4 Methods and procedures 2.4.1 Surface preparation 2.5 5S 2.6 DOLE Department Order No. 13 s. 998 Guidelines Governing Occupational Safety and Health in the Construction Industry 2.7 3Rs	2.1 Following safety and maintenance procedures 2.2 Following 5S 2.3 Preparing surfaces for: 2.3.1 Concrete 2.3.2 Steel 2.3.3 Wood 2.3.4 Drywall 2.4 Preparing completion reports 2.5 Following 3R practices

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Prepare previously coated/ covered surfaces	3.1 ***Conditions and nature of* existing surface** are tested in accordance with relevant standards 3.2 Potential hazards are identified and correct procedures are used to reduce risks in accordance with manufacturer recommendations and job specifications 3.3 ***Substrate preparation*** is performed in accordance with job specifications and manufacturer recommendations 3.4 Proper tool usage is observed in line with job requirements. 3.5 Unexpected situations are responded to according to company rules and regulations 3.6 Appropriate PPE is used according to job requirements. 3.7 Worksite is cleaned and kept in safe state and in accordance with OSHS	3.1 Safety and maintenance 3.1.1 Safety rules and regulations 3.1.2 Fire prevention 3.1.3 First aid treatment 3.1.4 Proper handling and care of tools, materials and equipment 3.2 Trade theory 3.2.1 Grades of sandpaper 3.2.2 Paint defects and troubleshooting 3.2.3 Various paint remover and cleaner 3.2.4 Surface treatments (i.e. skim coat, joint compounds) 3.3 Tools and equipment 3.3.1 Sander 3.3.2 Compressor 3.3.3 Handtools (spatula, hammer, nail set) 3.4 Methods and procedures 3.4.1 Surface inspection 3.4.2 Surface preparation 3.5 5S 3.6 DOLE Department Order No. 13 s.1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 3.7 3Rs	3.1 Following safety and maintenance procedures 3.2 Following 5S 3.3 Preparing surfaces for: 3.3.1 Concrete 3.3.2 Steel 3.3.3 Wood 3.3.4 Drywall 3.4 Preparing completion reports 3.5 Following 3R practices

RANGE OF VARIABLES

VARIABLE	RANGE
1. Surfaces	May include: 1.1 Concrete 1.2 Steel 1.3 Wood 1.4 Drywall
2. Foreign matters	May include: 2.1 Substances/Chemicals 2.1.1 Grease 2.1.2 Oil 2.1.3 Alkali 2.1.4 Dust 2.1.5 Rust 2.1.6 Mildew 2.1.7 Algae 2.2 Exposed nails/rebars/wires 2.3 Welding spatters
3. PPE	May include: 3.1 Body harness/Safety belt 3.2 Gloves (Chemical resistant) 3.3 Safety shoes 3.4 Hard hat 3.5 Respirator/Dust mask 3.6 Goggles 3.7 Overall coat and pants
4. Inspection report	May include: 4.1 Minor imperfections 4.1.1 Minor cracks 4.1.2 Surface imperfections 4.1.3 Dents 4.1.4 Holes 4.2 Defects of surfaces 4.3 Condition of surface 4.3.1 Moisture content 4.3.2 Alkalinity

VARIABLE	RANGE
5. Surface preparation	May include: 5.1 Cleaning 5.2 Neutralization 5.3 Metal etching 5.4 Wood bleaching 5.5 Sanding 5.6 Grinding
6. Unexpected situations	May include but are not limited to: 6.1 Damaged to materials and properties 6.2 Injury to personnel 6.3 Force majeure (Acts of God)
7. Worksite is cleaned	May include: 7.1 Waste and unwanted materials are removed 7.2 Painting tools and equipment are cleaned 7.3 Unused materials are sealed and stored 7.4 Materials are disposed of or recycled
8. Conditions and nature of existing surface	8.1 Loose paint 8.2 Cracks 8.3 Mildew growth 8.4 Corrosion 8.5 Chalking 8.6 Efflorescence 8.7 Carbon soot 8.8 Water seepage or leaks
9. Substrate preparation	May include: 9.1 Cleaning/Disinfecting 9.2 Paint removal 9.3 Wall paper removal 9.4 Sanding 9.5 Grinding 9.6 Pressure Washing 9.7 Rust treatment

EVIDENCE GUIDE

1. Critical aspects of competency	**Assessment requires evidence that the candidate:** 1.1 Inspected surfaces 1.2 Prepared new or bare surface 1.3 Prepared previously coated/covered surfaces 1.4 Observed tools and equipment usages 1.5 Identified, selected and used appropriate PPE 1.6 Demonstrated compliance with safety regulations
2. Resource Implications	**Things necessary to conduct method of assessment:** 2.1 Workplace location 2.2 Tools and equipment appropriate to work processes 2.3 Materials relevant to the proposed activity 2.4 Working drawings, instructions and specifications relevant to the task 2.5 Appropriate PPE
3. Methods of Assessment	**Competency in this unit must be assessed through:** 3.1 Observation of practical demonstration of skills 3.2 Oral questioning related to underpinning knowledge
4. Context for Assessment	4.1 Competency may be assessed in the workplace or in a simulated workplace setting.

UNIT OF COMPETENCY : **PERFORM PAINTING WORKS**

UNIT CODE : **CON713359**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in the application of paints based on the required performance standard.

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Apply paint materials	1.1 ***Paint materials*** are applied in sequence and in accordance with job requirements and manufacturer's recommendations 1.2 Proper tool usage is observed and in line with manufacturer's specifications 1.3 Appropriate ***PPE*** is used according to job requirements 1.4 Worksite is cleaned and kept safe in line with OSHS	1.1 Safety and maintenance 1.1.1 Hazards 1.1.2 Safety rules and regulations 1.1.3 Fire prevention 1.1.4 First aid treatment 1.1.5 Handling and care of tools and equipment 1.1.6 Housekeeping 1.2 Trade Theory 1.2.1 Painting principles 1.2.2 Painting techniques 1.3 Company and government rules and regulations 1.4 5S 1.5 DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 1.6 3Rs	1.1 Following safety and maintenance procedures 1.2 Applying paint materials 1.3 Using tools and equipment 1.5 Following 5S 1.4 Following manufacturer's specifications and recommendations /government regulations 1.5 Following 3R practices
2. Complete work	1.6 Final checks are made to ensure that work conforms with instructions and requirements 1.7 Paint faults are rectified, if applicable 1.8 Completion report is prepared and submitted to appropriate personnel	2.1 Safety and maintenance 2.1.1 Hazards 2.1.2 Safety rules and regulations 2.1.3 Fire prevention 2.1.4 First aid treatment 2.1.5 Handling and care of tools and equipment 2.1.6 Housekeeping 2.2 3Rs	2.1 Following safety and maintenance procedures 2.2 Following company and government rules and regulations 2.3 Rectifying paint faults 2.4 Following 5S 2.5 Following 3R practices

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		2.3 Trade theory 2.3.1 Painting principles 2.3.2 Painting techniques 2.4 Company and government rules and regulations 2.5 5S 2.6 DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 2.7 3Rs	
3. Perform post painting works	3.1 Access equipment are dismantled and stored in conformity with procedures and manufacturer's specifications 3.2 ***Waste materials are managed*** as per manufacturer's specifications and ***government regulations*** 3.3 Safety is observed in line with industry requirements 3.4 Worksite is cleaned and kept in safe state in line with OSHS	3.1 Safety and maintenance 3.1.1 Hazards 3.1.2 Safety rules and regulations 3.1.3 Fire prevention 3.1.4 First aid treatment 3.1.5 Handling and care of tools and equipment 3.1.6 Housekeeping 3.2 Tools and equipment 3.2.1 Types of spray equipment 3.2.2 Capacity of compressor 3.2.3 Principles of dismantling of access equipment 3.3 Methods and procedures 3.3.1 Waste Segregation and Disposal 3.4 Company and government rules and regulations 3.5 5S	3.1 Following safety and maintenance procedures 3.2 Performing waste segregation and disposal 3.3 Following procedures for maintaining and storing of tools and equipment 3.4 Following 5S 3.5 Following company and government rules and regulations 3.6 Following 3R practices

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** *terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		3.6 DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 3.7 3Rs	

RANGE OF VARIABLES

VARIABLE	RANGE
1. PPE	May include: 1.1 Body harness/Safety belt 1.2 Gloves (Chemical resistant) 1.3 Safety shoes 1.4 Hard hat 1.5 Respirator/Dust mask 1.6 Goggles 1.7 Overall coat and pants 1.8 Ear muff/plug 1.9 Lifeline and anchorage
2. Paint materials/consumables	May include: 2.1 Base coat materials 2.1.1 Metal primer 2.1.2 Wood primer 2.1.3 Concrete sealer/ Primer 2.1.4 Drywall sealer 2.2 Solvent- based paint 2.3 Water-based paint 2.4 Tinting/colorant 2.5 Thinners/Reducer 2.6 Empty cans 2.7 Putty 2.8 Top/ Intermediate/Finishing coat 2.9 Rags 2.10 Water/Solvent 2.11 Cleaning agent 2.12 Sand paper 2.13 Tapes and covers 2.14 Paint brush 2.15 Roller brush
3. Waste materials management	Includes: 3.1 Disposal in designated landfills 3.2 Handling and disposal of wash solvents, waste water 3.3 Segregation of waste (e.g. recyclable and non-recyclable)

VARIABLE	RANGE
4. Government regulations	May include: 4.1 Department of Environmental and Natural Resources (DENR) 4.1.1 Environmental Management Bureau (EMB) ➢ Chemical Control Order On Lead and Lead Compounds ➢ RA 6969 – Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990 4.2 Department of Interior Local Government (DILG) 4.2.1 Bureau of Fire Protection (BFP) ➢ RA 9514 – Revised Fire Code of the Philippines of 2008 4.3 Local Government Units (LGUs) Ordinances 4.4 DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry

EVIDENCE GUIDE

1. Critical aspects of competency	**Assessment requires evidence that the candidate:** 1.1 Prepared tools and equipment 1.2 Applied paint materials sequentially 1.3 Demonstrated ability to use painting tools 1.4 Dismantled access equipment 1.5 Complied with safety regulations 1.6 Performed post-painting works 1.7 Followed company rules and regulations 1.8 Worksite is cleaned and kept safe
2. Resource Implications	**Things necessary for the conduct of method of assessment:** 2.1 Workplace location 2.2 Tools and equipment appropriate to painting work 2.3 Materials relevant to the proposed activity 2.4 Plans and specifications relevant to the task 2.5 Appropriate PPE
3. Methods of Assessment	**Competency in this unit must be assessed through:** 3.1 Observation of practical demonstration of skills 3.2 Questionning related to underpinning knowledge
4. Context for Assessment	4.1 Competency may be assessed in the workplace or in a simulated workplace setting

UNIT OF COMPETENCY : **PERFORM RE-TOUCHING WORKS**

UNIT CODE : **CON713360**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in identifying, preparing and doing re-touching works.

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variable*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify defects and corrective measures	1.1 Causes of defects are detected through observation of the existing paint and familiarity with the environment. 1.2 Corrective measures are recommended based on the nature and type of defects. 1.3 Report is prepared and completed as to required specifications.	1.1 Safety and maintenance 1.1.1 Hazards 1.1.2 Safety rules and regulate 1.2 Tools and equipment 1.2.1 Types of spray equipment 1.2.2 Capacity of compressor 1.3 Materials uses and specifications 1.4 Company and government rules and regulations 1.5 5S 1.6 DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 1.7 3Rs	1.1 Following safety and maintenance procedures 1.2 Identifying paint materials, tools and equipment 1.3 Preparing reports 1.4 Following 5S 1.5 Following company rules and regulations 1.6 Following 3R practices
2. Prepare for re-touching works	2.1 Existing paints are prepared according to job requirements/ owner's specifications. 2.2 Materials, ***tools and equipmen***t are prepared according to job requirements. 2.3 Appropriate ***PPE*** are selected and used according to OSHS.	2.1 Safety and maintenance 2.1.1 Hazards 2.1.2 Safety rules and 2.1.3 regulations 2.1.4 Fire prevention 2.1.5 First aid treatment 2.1.6 Handling and care of tools and equipment 2.1.7 Housekeeping 2.2 Trade theory 2.2.1 Touching principles 2.2.2 Re-touching techniques	2.1 Following safety and maintenance procedures 2.2 Preparing paint materials, tools and equipment 2.3 Following 5S 2.4 Following company rules and regulations 2.5 Following 3R practices

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		2.2 Tools and equipment: Uses and Specifications 2.3 Materials: Uses and Specifications 2.4 Company and government rules and regulations 2.5 5S 2.6 DOLE Department Order No. 13 s.1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 2.7 3Rs	
3. Retouch surface	3.1 ***Paint materials*** are applied in line with job requirements 3.2 Proper tool usage is observed in line with manufacturer's specifications. 3.3 Worksite is cleaned and kept in safe state in line with OSHS. 3.4 ***Unexpected situations*** are dealt with in line with company rules and regulations.	3.1 Safety and maintenance 3.1.1 Hazards 3.1.2 Safety rules and regulations 3.1.3 Fire prevention 3.1.4 First aid treatment 3.1.5 Handling and care of tools and equipment 3.1.6 Housekeeping 3.2 Trade theory 3.2.1 Re-touching principles 3.2.2 Re-touching techniques 3.3 Company and government rules and regulations 3.4 5S 3.5 DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 3.6 3Rs	3.1 Following safety procedures 3.2 Applying paints 3.3 Preparing reports 3.4 Following 5S 3.5 Following company rules and regulations 3.6 Following 3R practices

ELEMENT	PERFORMANCE CRITERIA *Italicized terms are elaborated in the Range of Variables*	REQUIRED KNOWLEDGE	REQUIRED SKILLS
4. ~~Do~~ Perform post painting works	4.1 Access equipment are dismantled and stored in conformity with procedures and manufacturer's specifications 4.2 ***Waste materials are managed*** as per manufacturer's specifications and ***government regulations*** 4.3 Safety is observed in line with industry requirements 4.4 Worksite is cleaned and kept in safe state in line with OSHS.	4.1 Safety and maintenance 4.1.1 Hazards 4.1.2 Safety rules and regulations 4.1.3 Fire prevention 4.1.4 First aid Treatment 4.1.5 Handling and care of tools and equipment 4.1.6 Housekeeping 4.2 Principles of dismantling of access equipment 4.3 Methods and procedures 4.3.1 Waste Segregation and Disposal 4.4 Company and government rules and regulations 4.5 5S 4.6 DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 4.7 3Rs	4.1 Following safety and maintenance procedures 4.2 Performing waste segregation and disposal 4.3 Following procedures for maintaining and storing of tools and equipment 4.4 Following 5S 4.5 Following company and government rules and regulations 4.6 Following 3R practices

RANGE OF VARIABLES

VARIABLE	RANGE
1. Tools and equipment	May include: Tools 1.1 Mixing stick 1.2 Spatula/Putty knife (Paleta) 1.3 Color charts 1.4 Spray/Mortar gun 1.5 Paint mixer 1.6 Roller stick 1.7 Rope and pulley Equipment 1.8 Air compressor 1.9 Access equipment (e.g Scaffold/Gondola, Ladder) 1.10Airless Spray Unit
2. PPE	May include : 2.1 Body harness/Safety belt 2.2 Gloves (Chemical resistant) 2.3 Safety shoes 2.4 Hard hat 2.5 Respirator/Dust mask 2.6 Goggles 2.7 Overall coat and pants 2.8 Ear muff/plug 2.9 Lifeline and anchorage
3. Paint materials/consumables	May include: 3.1 Base coat materials 3.1.1 Metal primer 3.1.2 Wood primer 3.1.3 Concrete sealer 3.1.4 Drywall sealer 3.2 Solvent- based paint 3.3 Water-based paint 3.4 Tinting/colorant 3.5 Thinners/Reducer 3.6 Empty cans 3.7 Putty 3.8 Top/Intermediate/Finishing coat 3.9 Rags 3.10 Water/Solvent 3.11 Cleaning agent 3.12 Sand paper 3.13 Tapes and covers 3.14 Paint brush 3.15 Roller brush

VARIABLE	RANGE
4. Unexpected situations	May include: 4.1 Damage to materials and properties 4.2 Injury to personnel 4.3 Force majeure (Acts of God) 4.4 Painting equipment break-down
5. Waste materials management	May include: 5.1 Proper disposal in designated landfills 5.2 Proper handling and disposal of wash solvents 5.3 Segregation of waste (e.g. recyclable and non-recyclable)
6. Government regulations	May include: 6.1 Department of Environmental and Natural Resources (DENR) 6.1.1 Environmental Management Bureau (EMB) ➢ Chemical Control Order On Lead and Lead Compounds ➢ RA 6969 – Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990 6.2 Department of Interior Local Government (DILG) 6.2.1 Bureau of Fire Protection (BFP) ➢ RA 9514 – Revised Fire Code of the Philippines of 2008 6.3 Local Government Units (LGUs) 6.4 DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry

EVIDENCE GUIDE

1. Critical aspects of competency	**Assessment requires evidence that the candidate:** 1.1 Identified defects and corrective measures 1.2 Evaluated existing paints 1.3 Performed re-touching 1.4 Demonstrated ability to use painting tools 1.5 Dismantled access equipment 1.6 Complied with safety regulations 1.7 Performed post-painting works 1.8 Followed company rules and regulations. 1.9 Specifications on waste management regulations
2. Resource Implications	**Things necessary for the conduct of method of assessment:** 2.1 Workplace location 2.2 Tools and equipment appropriate to painting work 2.3 Materials relevant to the proposed activity 2.4 Plans and specifications relevant to the task 2.5 Appropriate PPE
3. Methods of Assessment	**Competency in this unit must be assessed through:** 3.1 Direct observation of practical demonstration of skills 3.2 Questioning related to underpinning knowledge
4. Context for Assessment	3.3 Competency may be assessed in the workplace or in a simulated workplace setting

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 certain qualifications.

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

3.1 CURRICULUM DESIGN

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

Delivery of knowledge requirements for the basic, common and core units of competency specifically in the areas of mathematics, science/technology, communication/language and other academic subjects shall be contextualized. To this end, TVET providers shall develop a Contextual Learning Matrix (CLM) to accompany their curricula.

Course Title: CONSTRUCTION PAINTING **NC Level: NC II**

Nominal Training Duration: 18 Hours (Basic)
24 Hours (Common)
136 Hours (Core)

Course Description:

This course is designed to equip individual with operational skills in construction painting, such as preparing tools, painting materials and equipment, preparing surface for painting, performing painting work, and performing re-touching work.

To obtain this, all units prescribed for this qualification must be achieved:

BASIC COMPETENCIES

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
1. Participate in workplace communication	1.1 Obtain and convey workplace information	• Effective communication • Different modes of communication • Written communication • Organizational policies • Communication procedures and systems • Technology relevant to the enterprise and the individual's work responsibilities • Sources of information • Types of question • Medium of communication • Flow of communication • Storage system • Telephone courtesy	• Follow simple spoken language • Perform routine workplace duties following simple written notices • Participate in workplace meetings and discussions • Complete work related documents • Ability to relate to people of social range in the workplace • Gather and provide information in response to workplace requirements	• Group discussion • Role Play • Demonstration	• Oral Interview • Written test • Demonstration	4 hours
	1.2 Complete relevant work related documents	• Communication procedures and systems • Meeting protocols • Nature of workplace meetings • Barriers of communication	• Follow simple spoken language • Perform routine workplace duties following simple written notices	• Role Play • Demonstration	• Observation • Oral Interview • Written test	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		• Workplace interactions • Non verbal communication	• Participate in workplace meetings and discussions • Complete work related documents • Estimate, calculate and record routine workplace measures • Basic mathematical processes of addition, subtraction, division and multiplication • Ability to relate to people of social range in the workplace • Gather and provide information in response to workplace requirements			
	1.3 Participate in workplace meeting and discussion	• Technology relevant to the enterprise and the individual's work responsibilities • Types of workplace documents and forms • Basic mathematical concepts • Kinds of workplace report	• Follow simple spoken language • Ability to relate to people of social range in the workplace • Gather and provide information in response to workplace requirements	• Interaction • Demonstration	• Observation • Oral Interview • Written test	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
2. Work in a team environment	2.1 Describe and identify team role and responsibility in a team.	• Definition of Team • Difference between team and group • Different sources of information • Objectives and goals of team	• Describing the team role and scope	• Discussion	• Demonstration • Observation	4 hours
	2.2 Describe work as a team member	• Team goals and objectives • Fundamental rights at work including gender sensitivity • Understanding individual competencies relative to teamwork • Types of individuals • Role of leaders	• Identifying individual role and responsibility • Identifying external relationship • Interacting effectively with others • Setting team goals and expectations	• Interaction	• Interviews/ questioning • Demonstration	
3. Practice career professionalism	3.1 Integrate personal objectives with organizational goals	• Work values and ethics (Code of Conduct, Code of Ethics, etc.) • Understanding personal objectives • Understanding organizational goals • Difference between intra and interpersonal relationship	• Demonstrate Intra and Interpersonal skills at work • Demonstrate personal commitment in work	• Discussion	• Demonstration	6 hours

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		• Performance evaluation				
	3.2 Set and meet work priorities	• Company policies • Company operations, procedures and standards • Time management • Basic strategic planning concepts • Resource utilization and management	• Managing goals and time • Practice economic use of resources and facilities • Setting work priorities • Practice time management	• Interaction • Role Play	• Observation • Demonstration	
	3.3 Maintain professional growth and development	• Career development opportunities • Company recognition and incentives • Information on relevant licenses and or certifications	• Determining personal career development needs • Identifying career opportunities	• Interaction • Role Play	• Interviews/ questioning	
4. Practice occupational health and safety	4.1 Identify hazard and risks	• OSH procedures, practices and regulations • Hazards/risks identification and control • OSH indicators • Organizational contingency practices	• Hazards/risks identification and control skills	• Discussion • Plant tour • Symposium	• Observation • Interview	4 hours

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
	4.2 Evaluate hazard and risks	• Threshold Limit Value – TLV • Effects of safety hazards	• Communication skills • Reporting safety hazards	• Discussion • Plant tour	• Observation • Interview	
	4.3 Control hazards and risks	• Personal hygiene practices • Organization safety and health protocol • Company emergency procedure practices	• Respond to emergency	• Discussion • Demonstration	• Portfolio assessment • Interview	
	4.4 Maintain occupational health and safety awareness	• Workplace OSH personal records • Information on emergency-related drills	• Practice emergency-related drill skills in the workplace	• Discussion • Role-play • Simulation	• Portfolio assessment • Interview	

COMMON COMPETENCIES

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
1. Prepare construction materials and tools	1.1 Identify materials	• Different work specifications • Types, uses and description of construction painting materials and accessories • Types, uses and description of construction painting tools • List of materials as per company standards	• Identifying tools according to the job requirements • Identifying materials and accessories according to the job requirements	• Circle of knowledge / Group discussion • Demonstration	• Demonstration • Questions or interview • Written test	4 hours
	1.2 Requisition materials	• Work requirements • Types and uses of construction painting materials and tools • Material take-off • Requisition procedures	• Preparing material take-off • Requesting materials and tools • Accomplishing materials requisition form	• Discussion • Simulation	• Direct observation • Questions or interview	
	1.3 Receive and inspect materials	• Policy on receiving material deliveries • Material and tools quality and defects • Material handling	• Checking and inspecting received/delivered materials and tools • Storing/ stacking of tool and materials	• Practical Exercise • Demonstration	• Written / Oral Test • Demonstration	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
2. Observe procedures, Specifications and Manuals of Instructions	2.1 Identify and access specification/ manuals	• Types of manuals used in construction painting • Identification of symbols used in the manuals	• Identifying manuals and specifications • Accessing information and data	• Lecture • Demonstration	• Oral questioning • Written test or examination	8 hours
	2.2 Interpret manuals	• Types of manuals used in construction painting • Types of symbols used in manuals • System of measurements • Unit conversion	• Interpreting symbols and specifications • Accessing information and data • Applying conversion of units of measurements	• Actual demonstration • Group discussion	• Direct observation • Written test or examination	
	2.2 Apply information in manual	• Types of manuals used in construction painting • Types and application of symbols in manuals • Unit conversion	• Applying information from manuals	• Demonstration • Group discussion	• Demonstration (able to impart knowledge and skills) • Practical and oral exam	
	2.3 Store Manual	• Types of manuals used in construction painting • Manual storing and maintaining procedures	• Storing and maintaining manuals	• Demonstration Group discussion	• Demonstration • Practical and oral exam	
3. Perform mensurations and calculation	3.1 Select measuring instruments	• Types of measuring tools and its uses	• Selecting measuring instruments	• Lecture-demonstration • Group discussion	• Direct observation • Oral questioning	4 hours

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
	3.2 Carry out measurements and calculations	• Measurements - Linear measurement - Geometrical measurement • Trade Mathematics - Unit conversion - Ratio and proportion - Area	• Interpreting formulas for volume, areas, perimeters of plane and geometric figures • Handling of measuring instruments	• Group discussion • Practical Lab • Demonstration	• Written test or examination • Third party report • Demonstration (able to impart knowledge and skills)	
4. Maintain Tools and Equipment	4.1 Check condition of tools and equipment	• Safety practices - use of PPE - handling of tools and equipment - good housekeeping • Materials, tools and equipment - types and uses of lubricants - types and uses of cleaning materials - types and uses of construction painting tools - types and uses of construction painting equipment • Operational conditions of construction painting tools and equipment • Construction painting tools and equipment defects	• Maintaining tools and equipment • Handling of tools and equipment • Identifying tools and equipment defects	• Lecture-demonstration • Group discussion	• Direct observation • Oral questioning	8 hours

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
	4.2 Perform basic preventive maintenance	• Safety practices - use of PPE - handling of tools and equipment - good housekeeping • Materials, tools and equipment - types and uses of lubricants - types and uses of cleaning materials • Preventive maintenance - Methods and techniques - Procedures	• Handling of tools and equipment • Performing preventive maintenance	• Simulation • Group discussion • Practical Lab • Demonstration	• Written test or examination • Third party report • Demonstration (able to impart knowledge and skills)	
	4.3 Store tools and equipment	• Safety practices - use of PPE - handling of tools and equipment - good housekeeping - Storing procedures and techniques - Storage conditions/ locations	• Storing tools and equipment • Handling of tools and equipment	• Demonstration • Group discussion • Practical *Lab*	• Practical exam • Direct observation • Written test	

CORE COMPETENCIES

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
1. Prepare tools, painting materials and equipment	1.1 Identify painting materials, tools and equipment according to surface	• Materials use and Specifications - Types of paint - Types of thinner/reducer - Grades of sand paper - Types of putty - Types of paint brush and roller/tray - Types of colorant • Other materials for surface preparation • Tools and equipment: Uses and specifications • Safety use of access equipment • Materials storage • DOLE Department Order No. 13 s.1998 Guidelines Governing Occupational Safety and Health in the Construction Industry • 5S • 3Rs	• Identifying painting materials, tools and equipment • Preparing materials listing • Preparing tools list • Preparing painting equipment list • Following 5S • Following 3R practices	• Incomplete worksheet • Group discussion • Actual demonstration	• Demonstration • Written and Oral Examination	16 hours -
	1.2 Prepare paints and requirements	• Materials uses and specifications • -Types of paint • -Types of thinner/reducer • -Types of colorant	• Preparing (mixing) painting materials, tools and equipment according to surface: - Concrete - Steel	• Flash card • Group discussion • Demonstration	• Observation • Written and Oral Examination	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		• -Grades of sand paper • -Types of putty • -Types of paint brush and roller/tray • Other materials for surface preparation • Tools and equipment : Uses and specifications • Safety use of access • Equipment • Materials storage • DOLE Department Order No. 13 s. 1998 Guidelines Governing • Occupational Safety and Health in the Construction Industry • 5S • 3Rs	- Wood - Drywall • Following 5S and workplace safety • Following 3R practices			
2. Prepare surface for painting	2.1 Inspect surface	• Safety and maintenance - Safety rules and Regulations - Fire prevention - First aid Treatment - Handling and care of tools, materials and equipment • Trade Theory - Grades of Sandpaper - Paint defects and troubleshooting	• Following safety and maintenance procedures • Installing access equipment • Following 5S • Perform inspection • Inspection of various surfaces: - concrete - wood - metal - drywall	• Incomplete worksheet • Discussion • Demonstration • Hands-on exercises • Performance	• Written and Oral Examination • Demonstration	24 hours

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		- surface condition • Tools and equipment - Handtools (spatula, hammer, nail set) - pH level measurement tools • Inspection methods and procedures - Surface inspection - Paint Compatibility • 5S • DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry • 3Rs	• Preparing inspection and completion reports • Following 3R practices			
	2.2 Prepare new or bare surface	• Safety and maintenance - Safety rules and regulations - Fire prevention - First aid treatment - Handling and care of tools, materials and equipment • Methods and procedures of surface preparation - concrete - wood - metal	• Inplementing 5S • Preparing surfaces for: - Concrete - Steel - Wood - Drywall • Preparing completion reports • Following 3R practices	• Opinion line • Discussion • Demonstration • Hands-on Exercises	• Written and Oral Examination • Demonstration	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		- drywall • Trade theory - Grades of sandpaper - Paint defects and troubleshooting - Various paint remover and cleaner surface treatments (e.g. skim coat, joint compounds) • Tools and equipment - Sander - Compressor - Handtools, Spatula, hammer, nail set) • Methods and procedures - Surface preparation • 5S • DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry • 3Rs				
	2.3 Prepare previously coated/ covered surfaces	• Safety and maintenance - Safety rules and regulations - Fire prevention	• Following safety and maintenance procedures • Following 5S	• Incomplete worksheet • Discussion	• Written and Oral Examination • Demonstration	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		- First aid treatment - Proper handling and care of tools, materials and equipment • Trade theory - Grades of sandpaper - Paint defects and troubleshooting - Various paint remover and cleaner - Surface treatments (i.e. skim coat, joint compounds) • Tools and equipment - Types of spray equipment - Capacity of compressor • Tools and equipment - Sander - Compressor - Handtools (spatula, hammer nail set) • Methods and procedures - Surface inspection - Surface preparation • 5S	• Preparing previously coated surfaces: - Concrete - Steel - Wood - Drywall • Preparing completion reports • Following 3R practices	• Demonstration • Hands-on		

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		• DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry • 3Rs				
3 Perform painting works	3.1 Apply paint materials	• Safety and maintenance - Hazards - Safety rules and regulations - Fire prevention - First aid treatment - Handling and care of tools and equipment - Housekeeping • Trade Theory - Painting principles - Painting techniques • Company and government rules and regulations • 5S • DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry 3.8 3Rs	• Following safety and maintenance procedures • Applying paint materials: - brush - roller - spray • Following 5S • Following manufacturer's specifications and recommendations / government regulations • Following 3R practices	• Incomplete worksheet • Discussion • Demonstration • Hands-on	• Written and Oral Examination • Demonstration	80 hours

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
	3.2 Complete work	• Safety and maintenance - Hazards - Safety rules and regulations - Fire prevention - First aid treatment - Handling and care of tools and equipment - Housekeeping • Trade theory - Painting principles - Painting techniques • Company and government rules and regulations • 5S • DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry • 3Rs	• Following safety and maintenance procedures • Following company and government rules and regulations • Performing quality inspection • Rectifying paint faults • Preparing completion report • Following 5S • Following 3R practices	• Circle of knowledge • Pair check • Discussion • Demonstration • Hands-on exercises	• Written and Oral Examination • Demonstration	
	3.3 Perform post painting works	• Safety and maintenance - Hazards - Safety rules and regulations - Fire prevention - First aid treatment - Handling and care of tools and equipment - Housekeeping	• Following safety and maintenance procedures • Performing waste segregation and disposal • Following procedures for maintaining and storing of tools and equipment	• Discussion • Demonstration • Hands-on	• Written and Oral Examination • Demonstration	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		- Principles of dismantling of access equipment • Methods and procedures - Waste Segregation and Disposal • Company and government rules and regulations • 5S • DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry • 3Rs	• Following company and government rules and regulations • Following 3R practices			

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
4 Perform Re-touching works	4.1 Identify defects and corrective measures	• Safety and maintenance - Hazards - Safety rules and regulations • Types of defects, • Corrective measures • Tools and equipment • Types of spray equipment - Capacity of Compressor • Materials uses and specifications • Company and government rules and regulations • 5S • DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry	• Following safety and maintenance procedures • Identifying defects • Identifying paint materials, tools and equipment for re-touching works • Performing re-touching works • Preparing reports • Following 5S • Following company rules and regulations • Following 3R practices	• Incomplete worksheet • Discussion • Demonstration • Hands-on exercises	• Written and Oral Examination • Demonstration	16 hours
	4.2 Prepare for re-touching works	• Safety and maintenance - Hazards - Safety rules and regulations - Fire prevention - First aid treatment - Handling and care of tools and equipment	• Following safety and maintenance procedures • Preparing paint materials, tools and equipment • Following company rules and regulations • Following 3R	• Incomplete worksheet • Discussion • Demonstration • Hands-on exercises	• Written and Oral Examination • Demonstration	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		- Housekeeping • Trade theory - Re-touching Principles - Re-touching Techniques • Tools and equipment: Uses and Specifications • Materials: Uses and Specifications • Company and government rules and regulations • 5S • DOLE Department Order No. 13 s.1998 Guidelines Governing Occupational Safety and Health in the Construction Industry • 3Rs	practices			
	4.3 Retouch surface	• Safety and maintenance - Hazards - Safety rules and regulations - Fire prevention - First aid treatment - Handling and care of tools and equipment	• Following safety Procedures • Applying paints for re-touch works • Preparing reports • Following company rules and regulations • Following 3R practices	• Incomplete worksheet • Discussion • Demonstration • Hands-on exercises	• Written and Oral Examination • Demonstration	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		- Housekeeping • Trade theory - Re-touching principles - Re-touching techniques • Company and government rules and regulations • 5S • DOLE Department Order No. 13 s.1998 Guidelines Governing Occupational Safety and Health in the Construction Industry • 3Rs				
	4.4 Perform post painting works	• Safety and maintenance - Hazards - Safety rules and regulations - Fire prevention - First aid Treatment - Handling and care of tools and equipment - Housekeeping • Principles of dismantling of access equipment	• Following safety and maintenance procedures • Performing waste segregation and disposal • Following procedures for maintaining and storing of tools and equipment • Following company and government rules and regulations • Following 3R practices	• Incomplete worksheet • Discussion • Demonstration • Hands-on exercises	• Written and Oral Examination • Demonstration	

Unit of Competency	Learning Outcomes	Learning Contents	Practical Activities	Methodologies	Assessment Methods	Nominal Duration
		• Methods and procedures - Waste Segregation and Disposal effects of painting materials to environment • Company and government rules and regulations • 5S • DOLE Department Order No. 13 s. 1998 Guidelines Governing Occupational Safety and Health in the Construction Industry • 3Rs				

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 performance of all specified competencies.

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;

    - The traditional classroom-based or in-center instruction may be enhanced through use of learner-centered methods as well as laboratory or field-work components.

2.2 Enterprise-Based:

- **Formal Apprenticeship** – Training within employment involving a contract between an apprentice and an enterprise on an approved apprenticeable occupation.

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

- **Enterprise-based Training-** where training is implemented within the company in accordance with the requirements of the specific company. Specific guidelines on this mode shall be issued by the TESDA Secretariat.

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

3.3 TRAINEE ENTRY REQUIREMENTS

Trainees or students should possess the following requirements:

- At least senior high school level or graduate;
- relevant industry experience (construction painting works) minimum of 2 years in all of the following:
- Able to communicate orally and in writing; and
- Can perform basic mathematical computation

3.4 LIST OF TOOLS, EQUIPMENT AND MATERIALS FOR CONSTRUCTION PAINTING NC II

Recommended list of tools, equipment and materials for the training of 25 trainees for Construction Painting NC II.

TOOLS		EQUIPMENT		MATERIALS	
QTY		QTY		QTY	
25 pcs	Steel brush or cap brush	2 units	Compressor	25 sets.	Paint & Catalyst
25 pcs.	2” Nylon/paint brush	2 units	Paint Mixer with hand drill	¼ liter x 2 boxes	Colorants (Assorted)
25 pcs.	3” Nylon/paint brush	2 units	Sander/Sanding Machine	1 liter x 6 boxes	Paint (Assorted)
25 pcs.	4” Camel hair brush	20 sets	Scaffold H frame	5 pcs.	Nail set
50 m.	¾” Rope	4 units	Pulley (single & double)	1 roll	# 100 Sand paper
5 pcs.	Cross cut saw	2 units	Ladder	100 pcs	# 150 Sand paper
6 pcs.	Wrench/spanner	25 sets	Railing system	100 pcs	# 280 Sand paper
10 pcs.	Screw driver set	20 sets	1 ¼ x 6m, GI Pipes	2 gal.	Neutralizer
25 pcs.	Scraper	5 units	Spray Gun	1 bag	Patching compound
25 pcs.	4” Putty knife	40 pcs	Swivel Clamp	5 boxes	pH paper
10 pcs.	Steel Trowel	1 set	Airless Spray	1 box.	Paint and Varnish remover
4 sets	½ x 20 meters Hose couplings and fittings			2 sets	# 1, #2 Wood Bleach
10 pcs.	Calculator			2 liters	Rust converter
25 pcs.	Paint roller/pan			10 gal.	Paint thinner
10 pcs.	Pull push rule/tape measure			10 gal.	Lacquer thinner
50 sets	Base jack			2 gal.	Reducer
25 pcs.	Lumber sill (Plywood, 4ft x 8 ft /Solid wood, 2” x 4” x 8ft)			10 kilos	Rags
25 sets	Platforms			25 rolls	Masking tape
50 pcs.	X-brace			25 pcs,	Mixing stick
25 pcs.	Gloves			25 pcs.	Mixing can
25 pcs.	Dust masks/Respirator			25 pcs.	Measuring cups
25 pcs.	Safety shoes			12 pcs.	Gypsum board ,½’ x 4ft x 8ft
25 pcs.	Hard hat			12 rolls	Gypsum tape 2”
25 pcs.	Belt/safety harness			5 pails	Gypsum putty 16 liters
25 pcs.	Goggles			12 pcs	Fiber cement board ¼” x4ft x 8ft
25 pcs.	T shirt			5 pails	Fiber cement board putty16 liters

TOOLS		EQUIPMENT		MATERIALS	
QTY		QTY		QTY	
				12 rolls	Fiber cement board tape 2”
				5 bags	Rendering plaster, 25 kgs/bag
				5 pails/ bags	Skimcoat plaster, 25kgs per pail/bag
					GI Sheet, Gauge #26, 0.7m x 8”
				LEARNING MATERIALS	
					Working drawing
					Color guide
					Company forms
					Paint schedule and plans
					Interactive instructional modules
					Books in Painting

3.5 TRAINING FACILITIES

Based on a class intake of 25 students/trainees

Based on a class size of 25 students/trainees

Space Requirement	Size in Meters	Area in Sq. Meters	Total Area in Sq. Meters
Laboratory/Workshop Area		100	100
Lecture Room		25	25
Tool, Supply / Storage Room		10	10
Learning Resource Center		15	15
Wash room and Toilet		10	10
Facilities / Equipment / Circulation area (30% of Workshop Component Space)			48
TOTAL AREA			**208**

3.6 TRAINER'S QUALIFICATIONS

CONSTRUCTION PAINTING – NC II

- Must be a holder of National TVET Trainer Certificate Level I (NTTC Level I) in Construction Painting NC II
- Must be computer literate
- Must be physically and mentally fit
- Must have at least 3 years job/ industry experience and/or teaching experience
- 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

3.7 INSTITUTIONAL ASSESSMENT

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

SECTION 4 ASSESSSMENT AND CERTIFICATION ARRANGEMENT

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

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

4.1 NATIONAL ASSESSMENT AND CERTIFICATION ARRANGEMENTS

4.1.1 A National Certificate (NC) is issued when a candidate has demonstrated competence through project-type assessment covering all the units of competency that comprise the Training Regulations for Construction Painting NC II as follows:

BASIC COMPETENCIES
Participate in workplace communication
Work in team environment
Practice career professionalism
Practice occupational health and safety procedures
COMMON COMPETENCIES
Prepare construction materials and tools
Observe procedures, specifications and manuals of instruction
Perform mensurations and calculations
Maintain tools and equipment
CORE COMPETENCIES
Prepare tools, painting materials and equipment
Prepare surface for painting
Perform painting works
Perform re-touching works

4.1.2 Candidates wanting to be certified will have to be assessed in accordance with the requirements identified in the evidence guide of the relevant unit/s of competency.

4.1.3 Candidates applying for competency assessment and certification for Construction Painting NC II:

4.1.3.1 Graduates of formal, non-formal and informal institutions including enterprise-based training programs

4.1.3.2 Experienced workers (wage-employed or self-employed)

4.1.4 Conduct of assessment and issuance of certificates shall follow the procedures manual and implementing guidelines developed for the purpose.

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 `

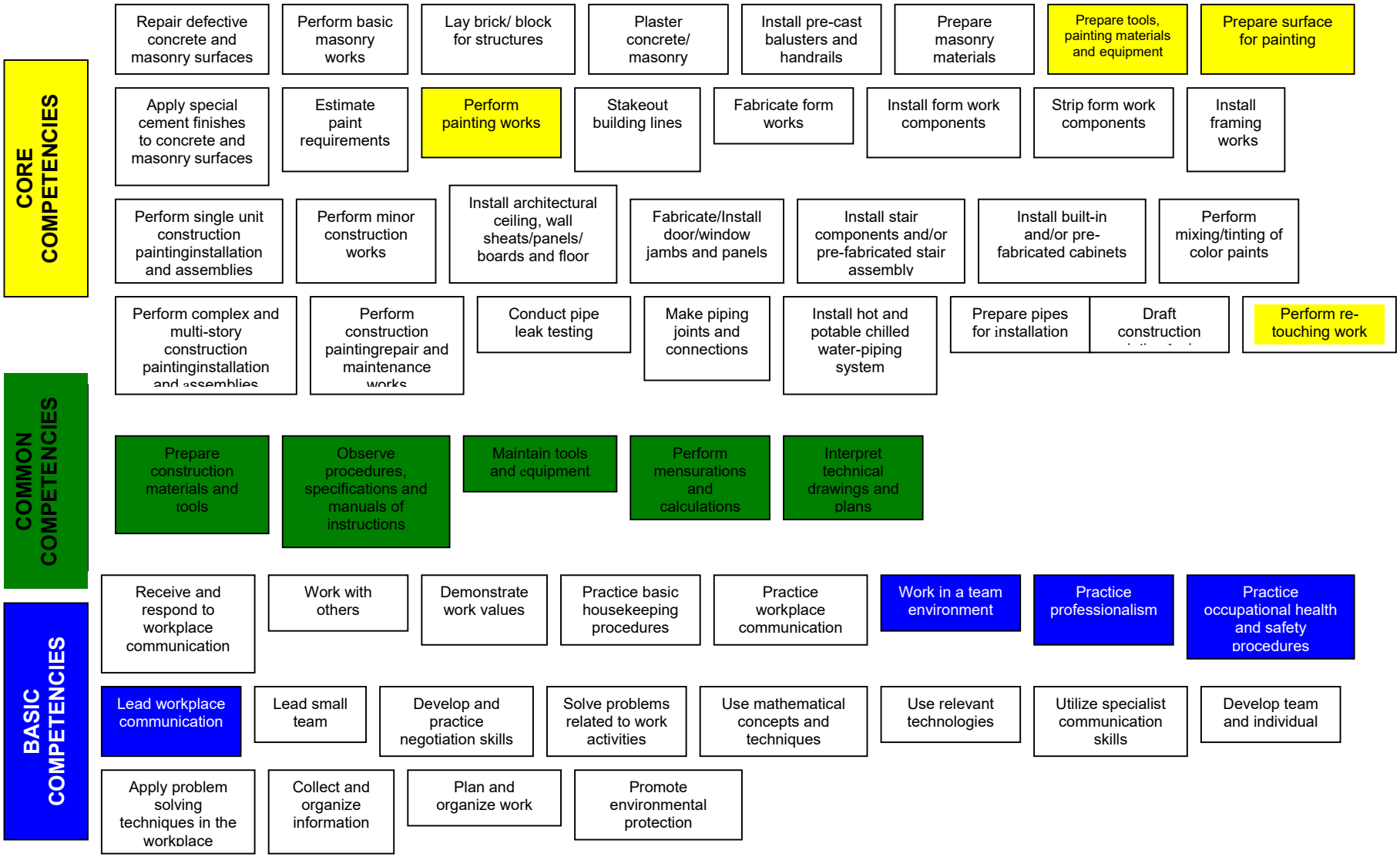
4.2.2 Accredited Assessment Center. Only Assessment Center accredited by TESDA is authorized to conduct competency assessment. Assessment centers undergo a quality assured procedure for accreditation before they are authorized by TESDA to manage the assessment for National Certification.

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
CIVIL WORKS SUB-SECTOR

ANNEX A

CONSTRUCTION PAINTING NC II



DEFINITION OF TERMS

1. Alkalinity	Refers to the measurement of the concentration of base or amount of free base present.
2. Certification	Refers to the process of verifying and validating competencies of a person through assessment.
3. Competency	Is the application of knowledge, skills and attitudes to perform work activities to the standard expected in the workplace.
4. Element	Refers to the building blocks of a unit of competency. It describes in outcome terms the functions that a person who works in a particular area of work is able to perform.
5. Evidence Guide	It is a guide for assessment that provides information on critical aspects of competency, underpinning knowledge, underpinning skills, resource implications, context of assessment and assessment method.
6. Level	Refers to the category following the level of difficulty and complexity of skills and knowledge required to do the job.
7. Neutralizer	Refers to the substance that makes or reacts with a substrate (object to be coated) to render it neutral.
8. Paint	Refers in general to all types of protective coatings, and in particular to a mixture containing a pigment binder and vehicle, which can be spread to a thin film on interior or exterior surfaces.
9. Philippine TVET Qualification Framework	Refers to a comprehensive, nationally consistent framework for qualifications in the TVET sector. It also provides the parameter for the integration of learning and assessment in the middle skills development.
10. Primer	Refers to the first or primary coating.
11. Qualification	Refers to the national certificate issued by the TESDA or its accredited industry organizations in recognition that a person has achieved competencies relevant to a trade or industry.
12. Range of Variable	It describes the circumstances or context in which the work is to be performed.
13. Solvent	Refers to mineral spirits
14. Solvent-based paint	Refers to a coating that uses mineral spirits as thinner/ reducer
15. Unit of Competency	Refers to a discrete aspect of work, which would normally be performed by only one person.

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17. Water-based paint	Refers to a coating that uses water as its solvent.
18. Punchlisting	Refers to the items that requires rectification
19. Dry-wall	A board made of several plies of fiberboard, paper, or felt bonded to a hardened gypsum plaster core and used especially as wallboard
20. Re-touch	To rework in order to improve
21. Surface Preparation	The action or process of making the surface ready for painting

ACKNOWLEDGEMENTS

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

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