

# TRAINING REGULATIONS



## **Construction Lift Passenger/ Material Elevator Operation NC II**

### **CONSTRUCTION SECTOR**

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

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**TRAINING REGULATIONS FOR  
CONSTRUCTION LIFT PASSENGER/ MATERIAL ELEVATOR OPERATION NC II**

**SECTION 1 CONSTRUCTION LIFT PASSENGER/ MATERIAL ELEVATOR  
OPERATION NC II QUALIFICATION**

The **Construction Lift Passenger/ Material Elevator Operation NC II** Qualification consists of competency that individuals must achieve to enable them to operate construction lift passenger/ material elevator. It includes pre-operation, productive, post-operation, basic maintenance and enforcement of safety standards for lifts/ elevators.

This Qualification is packaged from the competency map of Construction 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
CON311202	Interpret technical drawings and plans
CON311203	Perform mensurations and calculations
CON311204	Maintain tools and equipment

**CODE NO. CORE COMPETENCIES**

**Units of Competency**

CON833301	Operate Construction Lift Passenger/ Material Elevator
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A person who has achieved this Qualification is competent to be a:

- Construction Lift Passenger/ Material Elevator Operator

## SECTION 2 COMPETENCY STANDARDS

This section gives the details of the contents of the basic, common and core units of competency required in **CONSTRUCTION LIFT PASSENGER/ MATERIAL ELEVATOR OPERATION NC II**.

### BASIC COMPETENCIES

<b>UNIT OF COMPETENCY:</b>	<b>PARTICIPATE IN WORKPLACE COMMUNICATION</b>
<b>UNIT CODE</b> :	<b>500311105</b>
<b>UNIT DESCRIPTOR</b> :	This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Bold and Italicized</i> terms are elaborated in the Range of Variables
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from <b>appropriate sources</b> 1.2 Effective questioning, active listening and speaking skills are used to gather and convey information 1.3 Appropriate <b>medium</b> is used to transfer information and ideas 1.4 Appropriate non- verbal communication is used 1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed 1.6 Defined workplace procedures for the location and <b>storage</b> of information are used 1.7 Personal interaction is carried out clearly and concisely
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 <b>protocols</b> 2.4 <b>Workplace interactions</b> 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
3. Complete relevant work related documents	3.1 Range of <b>forms</b> relating to conditions of employment are completed accurately and legibly 3.2 Workplace data is recorded on standard workplace forms and documents 3.3 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

## 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

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Demonstrates ability to prepare written communication following standard format of the organization</li> <li>1.2 Demonstrates ability to access information using communication equipment</li> <li>1.3 Made use of relevant terms as an aid to transfer information effectively</li> <li>1.4 Conveyed information effectively adopting the formal or informal communication</li> </ul>
<p>2. Required Knowledge and Attitudes</p>	<ul style="list-style-type: none"> <li>2.1 Effective communication</li> <li>2.2 Different modes of communication</li> <li>2.3 Written communication</li> <li>2.4 Organizational policies</li> <li>2.5 Communication procedures and systems</li> <li>2.6 Technology relevant to the enterprise and the individual's work responsibilities</li> </ul>
<p>3. Required Skills</p>	<ul style="list-style-type: none"> <li>3.1 Follow simple spoken language</li> <li>3.2 Perform routine workplace duties following simple written notices</li> <li>3.3 Participate in workplace meetings and discussions</li> <li>3.4 Complete work related documents</li> <li>3.5 Estimate, calculate and record routine workplace measures</li> <li>3.6 Basic mathematical processes of addition, subtraction, division and multiplication</li> <li>3.7 Ability to relate to people of social range in the workplace</li> <li>3.8 Gather and provide information in response to workplace requirements</li> </ul>
<p>4. Resource Implications</p>	<ul style="list-style-type: none"> <li>4.1 Fax machine</li> <li>4.2 Telephone</li> <li>4.3 Writing materials</li> <li>4.4 Internet</li> </ul>
<p>5. Methods of Assessment</p>	<ul style="list-style-type: none"> <li>5.1 Direct Observation</li> <li>5.3 Oral interview and written test</li> </ul>
<p>6. Context of Assessment</p>	<ul style="list-style-type: none"> <li>6.1 Competency may be assessed individually in the actual workplace or through accredited institution</li> </ul>

<b>UNIT OF COMPETENCY:</b>	<b>WORK IN TEAM ENVIRONMENT</b>
<b>UNIT CODE</b> :	<b>500311106</b>
<b>UNIT DESCRIPTOR</b> :	This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Bold and Italicized</i> terms are elaborated in the Range of Variables
1. Describe team role and scope	1.1 The <b><i>role and objective of the team</i></b> is identified from available <b><i>sources of information</i></b> 1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources
2. Identify own role and responsibility within team	2.1 Individual role and responsibilities within the team environment are identified 2.2 Roles and responsibility of other team members are identified and recognized 2.3 Reporting relationships within team and external to team are identified
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 <b><i>workplace context</i></b> 3.3 Observed protocols in reporting using standard operating procedures 3.4 Contribute to the development of teamwork plans based on an understanding of team's role and objectives and individual competencies of the members.

## 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 OHS 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

<p>1. Critical aspects of competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Demonstrates ability to operate in a team to complete workplace activity</li> <li>1.2 Demonstrates ability to work effectively with others</li> <li>1.3 Demonstrates ability to convey information in written or oral form</li> <li>1.4 Demonstrates ability to select and use appropriate workplace language</li> <li>1.5 Demonstrates ability to follow designated work plan for the job</li> <li>1.6 Demonstrates ability to report outcomes</li> </ul>
<p>2. Required Knowledge and Attitude</p>	<ul style="list-style-type: none"> <li>2.1 Communication process</li> <li>2.2 Team structure</li> <li>2.3 Team roles</li> <li>2.4 Group planning and decision making</li> </ul>
<p>3. Required Skills</p>	<ul style="list-style-type: none"> <li>3.1 Communicate appropriately, consistent with the culture of the workplace</li> </ul>
<p>4. Resource Implications</p>	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> <li>4.1 Access to relevant workplace or appropriately simulated environment where assessment can take place</li> <li>4.2 Materials relevant to the proposed activity or tasks</li> </ul>
<p>5. Methods of Assessment</p>	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> <li>5.1 Observation of the individual member in relation to the work activities of the group</li> <li>5.2 Observation of simulation and or role play involving the participation of individual member to the attainment of organizational goal</li> <li>5.3 Case studies and scenarios as a basis for discussion of issues and strategies in teamwork</li> </ul>
<p>6. Context for Assessment</p>	<ul style="list-style-type: none"> <li>6.1 Competency may be assessed in workplace or in a simulated workplace setting</li> <li>6.2 Assessment shall be observed while task are being undertaken whether individually or in group</li> </ul>

<b>UNIT OF COMPETENCY:</b>	<b>PRACTICE CAREER PROFESSIONALISM</b>
<b>UNIT CODE</b> :	<b>500311107</b>
<b>UNIT DESCRIPTOR</b> :	This unit covers the knowledge, skills and attitudes in promoting career growth and advancement.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Bold and Italicized</i> terms are elaborated in the Range of Variables
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 <del>is</del> are maintained in the course of managing oneself based on performance <b><i>evaluation</i></b> 1.3 Commitment to the organization and its goal is demonstrated in the performance of duties
2. Set and meet work priorities	2.1 Competing demands are prioritized to achieve personal, team and organizational goals and objectives 2.2 <b><i>Resources</i></b> 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
3. Maintain professional growth and development	3.1 <b><i>Training and career opportunities</i></b> are identified and availed of based on job requirements 3.2 <b><i>Recognition</i></b> is sought/received and demonstrated as proof of career advancement 3.3 <b><i>Licenses and/or certifications</i></b> relevant to job and career are obtained and renewed

## 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. Training 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. Recognition	4.1 Recommendations 4.2 Citations 4.3 Certificate of Appreciation 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

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Demonstrates ability to attain job targets within key result areas (KRAs)</li> <li>1.2 Demonstrates ability to maintain intra - and interpersonal relationship in the course of managing oneself based on performance evaluation</li> <li>1.3 Demonstrates ability to complete training and career opportunities which are based on the requirements of the industries</li> <li>1.4 Demonstrates ability to acquire and maintain licenses and/or certifications according to the requirement of the qualification</li> </ul>
<p>2. Required Knowledge and Attitude</p>	<ul style="list-style-type: none"> <li>2.1 Work values and ethics (Code of Conduct, Code of Ethics, etc.)</li> <li>2.2 Company policies</li> <li>2.3 Company-operations, procedures and standards</li> <li>2.4 Fundamental rights at work including gender sensitivity</li> <li>2.5 Personal hygiene practices</li> </ul>
<p>3. Required Skills</p>	<ul style="list-style-type: none"> <li>3.1 Appropriate practice of personal hygiene</li> <li>3.2 Intra and Interpersonal skills</li> <li>3.3 Communication skills</li> </ul>
<p>4. Resource Implications</p>	<p>The following resources <b>MUST</b> be provided:</p> <ul style="list-style-type: none"> <li>4.1 Workplace or assessment location</li> <li>4.2 Case studies/scenarios</li> </ul>
<p>5. Methods of Assessment</p>	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> <li>5.1 Portfolio Assessment</li> <li>5.2 Interview</li> <li>5.3 Simulation/Role-plays</li> <li>5.4 Observation</li> <li>5.5 Third Party Reports</li> <li>5.6 Exams and Tests</li> </ul>
<p>6. Context of Assessment</p>	<ul style="list-style-type: none"> <li>6.1 Competency may be assessed in the work place or in a simulated work place setting</li> </ul>

<b>UNIT OF COMPETENCY:</b>	<b>PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES</b>
<b>UNIT CODE</b> :	<b>500311108</b>
<b>UNIT DESCRIPTOR</b> :	This unit covers the outcomes required to comply with regulatory and organizational requirements for occupational health and safety.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Bold and Italicized</i> terms are elaborated in the Range of Variables
1. Identify hazards and risks	1.1 <b>Safety regulations</b> and workplace safety and hazard control practices and procedures are clarified and explained based on organization procedures 1.2 <b>Hazards/risks</b> in the workplace and their corresponding indicators are identified to minimize or eliminate risk to co-workers, workplace and environment in accordance with organization procedures 1.3 <b>Contingency measures</b> during workplace accidents, fire and other emergencies are recognized and established in accordance with organization procedures
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 OHS issues and/or concerns and identified safety hazards are reported to designated personnel in accordance with workplace requirements and relevant workplace OHS legislation
3. Control hazards and risks	3.1 Occupational Health and Safety (OHS) 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 OHS policies 3.3 <b>Personal protective equipment (PPE)</b> is correctly used in accordance with organization OHS procedures and practices 3.4 Appropriate assistance is provided in the event of a workplace emergency in accordance with established organization protocol
4. Maintain OHS awareness	4.1 <b>Emergency-related drills and training</b> are participated in as per established organization guidelines and procedures 4.2 <b>OHS personal records</b> are completed and updated in accordance with workplace requirements

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Safety regulations	May include but are not limited to: 1.1 Clean Air Act 1.2 Building code 1.3 National Electrical and Fire Safety Codes 1.4 Waste management statutes and rules 1.5 Philippine Occupational Safety and Health Standards 1.6 DOLE regulations on safety legal requirements 1.7 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 2.4.1 Psychological factors – over exertion/ excessive force, awkward/static positions, fatigue, direct pressure, varying metabolic cycles 2.4.2 Physiological factors – monotony, personal relationship, work out cycle
3. Contingency measures	May include but are not limited to: 3.1 Evacuation 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
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. OHS personal records	6.1 Medical/Health records 6.2 Incident reports 6.3 Accident reports 6.4 OHS-related training completed

## EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Demonstrates ability to explain clearly established workplace safety and hazard control practices and procedures</li> <li>1.2 Demonstrates ability to identify hazards/risks in the workplace and its corresponding indicators in accordance with company procedures</li> <li>1.3 Demonstrates ability to recognize contingency measures during workplace accidents, fire and other emergencies</li> <li>1.4 Demonstrates ability to identify terms of maximum tolerable limits based on threshold limit value- TLV</li> <li>1.5 Demonstrates ability to follow Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace</li> <li>1.6 Used Personal Protective Equipment (PPE) in accordance with company OHS procedures and practices</li> <li>1.7 Completed and updated OHS personal records in accordance with workplace requirements</li> </ul>
<p>2. Required Knowledge and Attitude</p>	<ul style="list-style-type: none"> <li>2.1 OHS procedures and practices and regulations</li> <li>2.2 PPE types and uses</li> <li>2.3 Personal hygiene practices</li> <li>2.4 Hazards/risks identification and control</li> <li>2.5 Threshold Limit Value -TLV</li> <li>2.6 OHS indicators</li> <li>2.7 Organization safety and health protocol</li> <li>2.8 Safety consciousness</li> <li>2.9 Health consciousness</li> </ul>
<p>3. Required Skills</p>	<ul style="list-style-type: none"> <li>3.1 Practice of personal hygiene</li> <li>3.2 Hazards/risks identification and control skills</li> <li>3.3 Interpersonal skills</li> <li>3.4 Communication skills</li> </ul>
<p>4. Resource Implications</p>	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> <li>4.1 Workplace or assessment location</li> <li>4.2 OHS personal records</li> <li>4.3 PPE</li> <li>4.4 Health records</li> </ul>
<p>5. Methods of Assessment</p>	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> <li>5.1 Portfolio Assessment</li> <li>5.2 Interview</li> <li>5.3 Case Study/Situation</li> </ul>
<p>6. Context for Assessment</p>	<ul style="list-style-type: none"> <li>6.1 Competency may be assessed in the work place or in a simulated work place setting</li> </ul>

## COMMON COMPETENCIES

**UNIT OF COMPETENCY: PREPARE CONSTRUCTION MATERIALS AND TOOLS**

**UNIT CODE : CON931201**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes on identifying, requesting and receiving construction materials and tools based on the required performance standards.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variable
1. Identify materials and tools	1.1 <b>Materials</b> are listed as per job requirements 1.2 Quantity and <b>description of materials</b> conform with the job requirements 1.3 Tools and accessories are identified according to job requirements
2. Requisition equipment, materials and tools	2.1 Materials and tools needed are requested according to the list prepared 2.2 Request is done as per <b>company standard operating procedures (SOP)</b> 2.3 Substitute materials and tools are provided without sacrificing cost and quality of work
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 for damages according to enterprise procedures 3.3 Materials and tools are set aside to appropriate location nearest to the workplace



## RANGE OF VARIABLES

VARIABLE	RANGE
1. Materials and Tools	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	2.1 Brand name 2.2 Size 2.3 Capacity 2.4 Kind of application
3. Company standard procedures	3.1 Job order 3.2 Requisition slip 3.3 Borrower slip

## EVIDENCE GUIDE

<p>1. Critical aspects of competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Listed materials and tools according to quantity and job requirements</li> <li>1.2 Requested materials and tools according to the list prepared and as per company SOP</li> <li>1.3 Inspected issued materials and tools as per quantity and job specifications</li> <li>1.4 Tools provided with appropriate safety devices</li> </ul>
<p>2. Required knowledge and Attitude</p>	<ul style="list-style-type: none"> <li>2.1 Types and uses of construction materials and tools</li> <li>2.2 Different forms</li> <li>2.3 Requisition procedures</li> </ul>
<p>3. Required skills</p>	<ul style="list-style-type: none"> <li>3.1 Preparing materials and tools</li> <li>3.2 Proper handling of tools and equipment</li> <li>3.3 Following instructions</li> </ul>
<p>4. Resource implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>4.1 Workplace location</li> <li>4.2 Materials relevant to the unit of competency</li> <li>4.3 Technical plans, drawings and specifications relevant to the activities</li> </ul>
<p>5. Methods of assessment</p>	<p>Competency in this unit must be assessed through:</p> <ul style="list-style-type: none"> <li>5.1 Direct observation and oral questioning</li> </ul>
<p>6. Context of assessment</p>	<ul style="list-style-type: none"> <li>6.1 Competency may be assessed in the workplace or in a simulated workplace</li> </ul> <p>Competency assessment must be undertaken in accordance with the endorsed TESDA assessment guidelines</p>

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

**UNIT CODE : CON311201**

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

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized</i> terms are elaborated in the Range of Variables
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
2. Interpret manuals	2.1 Relevant sections, chapters of specifications/manuals are located in relation to the work to be conducted 2.2 Information and procedure in the manual are interpreted in accordance with industry practices
3. Apply information in manual	3.1 <b>Manual</b> is interpreted according to job requirements 3.2 Work steps are correctly identified in accordance with manufacturer's specification 3.3 Manual data are applied according to the given task 3.4 All correct sequencing and adjustments are interpreted in accordance with information contained on the manual or specifications
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

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Procedures, Specifications and Manuals of Instructions	Kinds of Manuals: 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. Required knowledge and Attitude	2.1 Types of manuals used in construction sector 2.2 Identification of symbols used in the manuals 2.3 Identification of units of measurements 2.4 Unit conversion
3. Required skills	3.1 Reading and comprehension skills required to identify and interpret construction manuals and specifications 3.2 Accessing information and data
4. Resource implications	The following resources should be provided: 4.1 All manuals/catalogues relative to construction sector
5. Methods of assessment	Competency should be assessed through: 5.1 Direct observation 5.2 Questions/interview  Assessment of underpinning knowledge and practical skills may be combined
6. Context of assessment	6.1 Competency assessment must be undertaken in accordance with the endorsed TESDA assessment guidelines 6.2 Assessment may be conducted in the workplace or a simulated environment

**UNIT OF COMPETENCY: INTERPRET TECHNICAL DRAWINGS AND PLANS**  
**UNIT CODE : CON311202**  
**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes in analyzing and interpreting symbols, data and work plan based on the required performance standards.

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized</i> terms are elaborated in the Range of Variables
1. Analyze signs, symbols and data	1.1 <b>Technical plans</b> are obtained according to job requirements 1.2 Signs, symbols and data are identified according to job specifications 1.3 Signs symbols and data are determined according to <b>classification</b> or as appropriate in <b>drawing</b>
2. Interpret technical drawings and plans	2.1 Necessary <b>tools, materials</b> and equipment are identified according to the <b>plan</b> 2.2 Supplies and materials are listed according to specifications 2.3 Components, assemblies or objects are recognized as required 2.4 Dimensions are identified as appropriate to the plan 2.5 Specification details are matched with existing/available resources and in line with job requirements 2.6 Work plan is drawn following the specifications
3. Apply freehand sketching	3.1 Where applicable, correct freehand sketching is produced in accordance with the job requirements

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Technical Plans	Including but not limited to: 1.1 Electrical plans 1.2 Structural plans 1.3 Architectural plans 1.4 Plumbing plans 1.5 Welding Procedures Specifications (WPS)
2. Work plan	2.1 Job requirements 2.2 Installation instructions 2.3 Components instruction
3. Classification	Including but not limited to: 3.1 Electrical 3.2 Mechanical 3.3 Plumbing
4. Drawing	4.1 Drawing symbols 4.2 Alphabet of lines 4.3 Orthographic views 4.4 Front view 4.5 Right side view/left side view 4.6 Top view 4.7 Pictorial 4.8 Schematic diagram 4.9 Electrical drawings 4.10 Structural drawings 4.11 Plumbing drawings 4.12 Water 4.13 Sewerage/Drainage 4.14 Ventilation 4.15 Welding symbols
5. Tools and materials	Including but not limited to: 5.1 Compass 5.2 Divider 5.3 Rulers 5.4 Triangles 5.5 Drawing tables 5.6 Computer

## EVIDENCE GUIDE

<p>1. Critical aspects of competency</p>	<p>Assessment requires that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Identified and determined signs, symbols and data according to work plan, job requirements and classifications</li> <li>1.2 Identified tools and equipment in accordance with job requirements</li> <li>1.3 Listed supplies and materials according to blueprint specifications</li> <li>1.4 Drawn work plan following specifications</li> <li>1.5 Demonstrated ability to determine job specifications based on working / technical drawing</li> </ul>
<p>2. Required Knowledge and Attitude</p>	<ul style="list-style-type: none"> <li>2.1 TRADE MATHEMATICS <ul style="list-style-type: none"> <li>2.1.1 Linear measurement</li> <li>2.1.2 Dimension</li> <li>2.1.3 Unit conversion</li> </ul> </li> <li>2.2 BLUEPRINT READING AND PLAN SPECIFICATION <ul style="list-style-type: none"> <li>2.2.1 Electrical, mechanical plan, symbols and abbreviations</li> <li>2.2.2 Drawing standard symbols</li> </ul> </li> <li>2.3 TRADE THEORY <ul style="list-style-type: none"> <li>2.3.1 Basic technical drawing</li> <li>2.3.2 Types technical plans</li> <li>2.3.3 Various types of drawings</li> <li>2.3.4 Notes and specifications</li> </ul> </li> </ul>
<p>3. Required Skills</p>	<ul style="list-style-type: none"> <li>3.1 Interpreting drawing/orthographic drawing</li> <li>3.2 Interpreting technical plans</li> <li>3.3 Matching specification details with existing resources</li> <li>3.4 Following instructions</li> <li>3.5 Handling of drawing instruments</li> </ul>
<p>4. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>4.1 Workplace</li> <li>4.2 Drawings and specification relevant to task</li> <li>4.3 Materials and instrument relevant to proposed activity</li> </ul>
<p>5. Methods of Assessment</p>	<p>Competency should be assessed through:</p> <ul style="list-style-type: none"> <li>5.1 Direct Observation</li> <li>5.2 Questions/Interview</li> <li>5.3 Written test related to underpinning knowledge</li> </ul>
<p>6. Context of Assessment</p>	<ul style="list-style-type: none"> <li>6.1 Competency assessment may occur in the workplace or in any appropriate simulated environment Assessment shall be observed while task are being undertaken whether individually or in group</li> <li>6.2 Competency assessment must be undertaken in accordance with the endorsed TESDA assessment guidelines</li> </ul>

**UNIT OF COMPETENCY: PERFORM MENSURATIONS AND CALCULATIONS**

**UNIT CODE : CON311203**

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

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variable
1. Select measuring instruments	1.1 Object or component to be measured is identified, classified and interpreted according to the appropriate regular <b>geometric shape</b> 1.2 Measuring tools are selected/identified as per object to be measured or job requirements 1.3 Correct specifications are obtained from relevant sources 1.4 Appropriate measuring instruments are selected according to job requirements Alternative measuring tools are used without sacrificing cost and quality of work
2. Carry out measurements and calculations	2.1 Accurate <b>measurements</b> are obtained according to job requirements 2.2 Alternative measuring tools are used without sacrificing cost and quality of work 2.3 <b>Calculation</b> needed to complete work tasks are performed using the four basic process of addition (+), subtraction (-), multiplication (x) and division (/) including but not limited to: trigonometric functions, algebraic computations 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



## RANGE OF VARIABLES

VARIABLE	RANGE
1. Geometric shape	Including but is not limited to: 1.1 Round 1.2 Square 1.3 Rectangular 1.4 Triangle 1.5 Sphere 1.6 Conical
2. Measuring instruments	Including but not limited to: 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
3. Measurements and calculations	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 3.10 Conductance 3.11 Capacitance 3.12 Displacement 3.16 Inside diameter 3.17 Circumference 3.18 Length 3.19 Thickness 3.20 Outside diameter 3.21 Taper 3.22 Out of roundness 3.23 Oil clearance 3.24 End play/Thrust clearance

## EVIDENCE GUIDE

1. Critical aspects of competency	<p>Assessment requires that the candidate:</p> <p>1.1 Selected and prepared appropriate measuring instruments in accordance with job requirements</p> <p>1.2 Performed measurements and calculations according to job requirements/ ISO</p>
2. Required knowledge and Attitude	<p>TRADE MATHEMATICS / MENSURATION</p> <p>2.1 Four fundamental operation</p> <p>2.2 Linear measurement</p> <p>2.3 Dimensions</p> <p>2.4 Unit conversion</p> <p>2.5 Ratio and proportion</p> <p>2.6 Trigonometric functions</p> <p>2.8 Algebraic equations</p>
3. Required skills	<p>3.1 Performing calculation by addition, subtraction, multiplication and division; trigonometric functions and algebraic equations</p> <p>3.2 Visualizing objects and shapes</p> <p>3.3 Interpreting formulas for volume, areas, perimeters of plane and geometric figures</p> <p>3.4 Proper handling of measuring instruments</p>
4. Resource implications	<p>The following resources should be provided:</p> <p>4.1 Workplace location</p> <p>4.2 Problems to solve</p> <p>4.3 Measuring instrument appropriate to carry out tasks</p> <p>4.4 Instructional materials relevant to the propose activity</p> <p>Assessment of underpinning knowledge and practical skills may be combined</p>
5. Methods of assessment	<p>Competency should be assessed through:</p> <p>5.1 Actual demonstration</p> <p>5.2 Direct observation</p> <p>5.3 Written test/questioning related to underpinning knowledge</p>
6. Context of assessment	<p>6.1 Competency assessment may occur in workplace or any appropriate simulated environment</p> <p>6.2 Assessment shall be observed while task are being undertaken whether individually or in group</p> <p>6.3 Competency assessment must be undertaken in accordance with the TESDA assessment guidelines</p>

**UNIT OF COMPETENCY: MAINTAIN TOOLS AND EQUIPMENT**

**UNIT CODE : CON311204**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes on checking condition, performing preventive maintenance and storing of tools and equipment based on the required performance standards.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized</i> terms are elaborated in the Range of Variables
1. Check condition of tools and equipment	1.1 <b>Materials, tools and equipment</b> are identified according to classification and job requirements 1.2 Non-functional tools and equipment are segregated and labeled according to classification 1.3 Safety of tools and equipment are observed in accordance with manufacturer's instructions 1.4 Condition of <b>PPE</b> are checked in accordance with manufacturer's instructions
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 OSHA regulations
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

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Materials	Including but not limited to: 1.1 Lubricants 1.2 Cleaning materials 1.3 Rust remover 1.4 Rugs 1.5 Spare parts
2. Tools and equipment	Including but not limited to: 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	Including but not limited to: 3.1 Goggles 3.2 Gloves 3.3 Safety shoes 3.4 Aprons/Coveralls
4. Forms	4.1 Maintenance schedule forms 4.2 Requisition slip 4.3 Inventory Form 4.4 Inspection Form 4.5 Procedures

## EVIDENCE GUIDE

<p>1. Critical aspects of competency</p>	<p>Assessment requires that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Selected and used appropriate processes, tools and equipment to carry out task</li> <li>1.2 Identified functional and non-functional tools and equipment</li> <li>1.3 Checked, lubricated and calibrated tools, equipment and instruments according to manufacturer's specifications</li> <li>1.4 Replaced defective tools, equipment and their accessories</li> <li>1.5 Observed and applied safe handling of tools and equipment and safety work practices</li> <li>1.6 Prepared and submitted inventory report, where applicable</li> <li>1.7 Maintained workplace in accordance with OSHA regulations</li> <li>1.8 Stored tools and equipment safely in appropriate locations and in accordance with company practices</li> </ul>
<p>2. Required knowledge and Attitude</p>	<ul style="list-style-type: none"> <li>2.1 SAFETY PRACTICES               <ul style="list-style-type: none"> <li>2.1.1 Use of PPE</li> <li>2.1.2 Handling of tools and equipment</li> <li>2.1.3 Good housekeeping</li> </ul> </li> <li>2.2 MATERIALS, TOOLS AND EQUIPMENT               <ul style="list-style-type: none"> <li>2.2.1 Types and uses of lubricants</li> <li>2.2.2 Types and uses of cleaning materials</li> <li>2.2.3 Types and uses of measuring instruments and equipment</li> </ul> </li> <li>2.3 PREVENTIVE MAINTENANCE               <ul style="list-style-type: none"> <li>2.3.1 Methods and techniques</li> <li>2.3.2 Procedures</li> </ul> </li> </ul>
<p>3. Required skills</p>	<ul style="list-style-type: none"> <li>3.1 Preparing maintenance materials, tools and equipment</li> <li>3.2 Proper handling of tools and equipment</li> <li>3.3 Performing preventive maintenance</li> <li>3.4 Following instructions</li> </ul>
<p>4. Resource implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>4.1 Workplace</li> <li>4.2 Maintenance schedule</li> <li>4.3 Maintenance materials, tools and equipment relevant to the proposed activity/task</li> </ul>
<p>5. Methods of assessment</p>	<p>Competency should be assessed through:</p> <ul style="list-style-type: none"> <li>5.1 Direct observation/Demonstration</li> <li>5.2 Written test/questioning relevant to underpinning knowledge</li> </ul>
<p>6. Context of assessment</p>	<ul style="list-style-type: none"> <li>6.1 Competency assessment may occur in the workplace or any appropriate simulated environment</li> <li>6.2 Competency assessment must be undertaken in accordance with the endorsed TESDA assessment guidelines</li> </ul>

## CORE COMPETENCIES

<b>UNIT OF COMPETENCY:</b>	<b>OPERATE CONSTRUCTION LIFT PASSENGER/MATERIAL ELEVATOR</b>
<b>UNIT CODE:</b>	<b>CON833301</b>
<b>UNIT DESCRIPTOR:</b>	This unit covers the outcomes required in the operation of construction lift passenger/ material elevator in construction job sites. It includes pre-operation, productive, post-operation, basic maintenance and enforcement of safety standards for lifts/ elevators.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
1. Perform before operation activities	1.1 <b>Visual Inspection</b> is performed using equipment checklist. 1.2 <b>Operation check</b> is performed using equipment checklist. 1.3 Elevator path is ensured to be free from obstructions and potential hazards. 1.4 Findings are recorded and reported to equipment supervisor for appropriate action. 1.5 Lubricants are applied to <b>mechanical parts</b> following manufacturer's recommendation. 1.6 Report is prepared in accordance with manufacturer/company procedure.
2. Transport passenger and materials	1.1. Elevator operation is monitored and <b>abnormalities</b> are acted upon in accordance with company procedures. 1.2. Ability to navigate cage to required landing platform is demonstrated in accordance with safety requirements. 1.3. Daily equipment time record is accomplished in line with company policies and procedure. 1.4. Communication with passengers <b>and jobsite personnel</b> is made to observe/ enforce safety procedures and safe rated capacity for the lift/ elevator equipment.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
3. Enforce safety standards	3.1 Load is determined/ controlled based on rated lift capacity. 3.2 Procedures for emergency breakdowns are implemented in accordance with manufacturer's instruction and recommendations and equipment manufacturer's recommendations. 3.3 <b>Unexpected situations</b> are responded to in line with company safety rules and regulations. 3.4 OSH orientation, toolbox meetings and specialized instructions are participated in accordance with organization guidelines and procedures 3.5 PPE is worn in compliance with OHS requirements
4. Perform after-operation activities	4.1. Construction lift is <b>shut off</b> using the correct sequence of procedures in accordance with manufacturer's instructions and company's safety procedures. 4.2. Routine post-operational equipment checks are carried out in accordance with the checklist provided for the construction lift. 4.3. The relevant motion locks and brakes are applied. 4.4. Equipment and components are checked for any signs of wear or damage and reported to an equipment supervisor for corrective action and/or replacement. 4.5. The construction lift is stowed/ positioned and secured in accordance with manufacturer's instructions and company's safety procedures.

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Visual Inspection	1.1. Rollers and gears 1.2. Ground enclosure and cage(s) 1.3. Wire rope and counter weights 1.4. Buffer spring and foundation frame 1.5. Lubricant leaks 1.6. Safety Signs 1.7. Load Capacity 1.8. Number of Passengers 1.9. Weight of Materials 1.10. Oil Level 1.11. Hoist Way 1.12. Electrical Wirings
2. Operation check	2.1. Safety limit devices 2.2. Mast(s) and rack(s) 2.3. Mast tie-in(s) 2.4. Brake system 2.5. Power supply cable and cable guide 2.6. Cable Trolley/Guide Rail 2.7. Control Panel 2.8. Entrance/Exit Door
3. Mechanical parts	May include but not limited to: 3.1. Rack and pinion 3.2. Sliding doors 3.3. Guide rollers 3.4. Wire ropes/Counterweights/Pulleys 3.5. Gear box
4. Abnormalities	4.1. Unusual sounds, vibration and smell 4.2. Erratic movement 4.3. Landing Levels 4.4. Activation of safety indicators 4.5. Sudden stoppage 4.6. Control Malfunctions
5. Jobsite personnel	5.1. Passengers 5.2. Workers 5.3. Supervisors 5.4. Rigger 5.5. Other equipment operators
6. Unexpected Situations	May include but are not limited to: 6.1. Oil leakages 6.2. Fraying of power supply cables 6.3. Loss of power supply 6.4. Failure of hoist brake 6.5. Structural failure of the masts and cages 6.6. Foundation failure 6.7. Force majeure e.g., earthquake, fire, tornado, typhoon 6.8. Sudden sickness/unstable health condition of operator 6.9. Uncontrollable personnel 6.10. Free-fall of Cage 6.11. Mast Tie-in Failure
7. Shutoff activities	7.1. Setting of cage to stowed position 7.2. Power shut-off 7.3. Closing of doors 7.4. Turn-over of Daily Equipment Time Record (DETR)



## EVIDENCE GUIDE

1. Critical Aspects of Evidence to be Considered	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1. Performed before operation activities</li> <li>1.2. Transported passenger and materials</li> <li>1.3. Enforced safety standards</li> <li>1.4. Performed after operation activities</li> </ul>
2. Required knowledge and attitude	<ul style="list-style-type: none"> <li>2.1. Quality procedures, e.g., 5S</li> <li>2.2. Environmental-conservation procedures, e.g. 3R (reduce, reuse, recycle)</li> <li>2.3. Basic electricity</li> <li>2.4. Construction lift systems and operation</li> <li>2.5. Cage lifting capacity</li> <li>2.6. Knowledge in construction lifting equipment parts/components and their function</li> <li>2.7. Safety practices in construction lift operation</li> <li>2.8. Lift operation and controls</li> <li>2.9. Elevator load limits/rated capacities</li> <li>2.10. Company safety procedures and standards</li> <li>2.11. Equipment abnormalities</li> <li>2.12. Emergency breakdown procedures</li> <li>2.13. Personal Protective Equipment (PPE)</li> <li>2.14. DOLE DO 13 Guidelines governing occupational safety and health in the construction industry.</li> <li>2.15. Literacy</li> <li>2.16. Safety conscious</li> </ul>
3. Required Skills	<ul style="list-style-type: none"> <li>3.1. Accomplishing inspection checklist</li> <li>3.2. Interpreting safety signs and charts</li> <li>3.3. Operating lift controls</li> <li>3.4. Load estimation</li> <li>3.5. Communication skills</li> <li>3.6. Accomplishing daily equipment time record/report (DETR)</li> <li>3.7. Reporting lifting equipment abnormalities</li> <li>3.8. Performing actual/proper operation</li> <li>3.9. Performing safety procedures and practices</li> <li>3.10. Reading and interpreting load chart</li> <li>3.11. Basic Troubleshooting</li> </ul>
4. Resource Implications	<p>Things necessary for the conduct of assessment</p> <ul style="list-style-type: none"> <li>4.1. Sample equipment checklist</li> <li>4.2. Access to elevator /lift equipment and manuals.</li> <li>4.3. PPE</li> </ul>
5. Method of Assessment	<p>Competency may be assessed through</p> <ul style="list-style-type: none"> <li>5.1. Written/oral questioning</li> <li>5.2. Direct observation / practical demonstration</li> <li>5.3. Portfolio</li> </ul>
6. Context for Assessment	<p>Assessment can be conducted in the actual workplace</p>

## SECTION 3 TRAINING STANDARDS

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 **Construction Lift Passenger/ Material Elevator Operation NC II**.

### 3.1 CURRICULUM DESIGN

Course Title: **Construction Lift Passenger/ Material Elevator Operation**

Level: **NC II**

Nominal Training Duration: **18 Hours (Basic)**  
**18 Hours (Common)**  
**24 Hours (Core)**  
**80 Hours (OJT)**  
**140 Hours**

Course Description:

This course is designed to develop knowledge, skills and desirable work attitude along **construction lift passenger/ material elevator operation**. It covers the basic, common and core competencies.

### BASIC COMPETENCIES (18 Hours)

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Participate in workplace communication	1.1 Obtain and convey workplace information 1.2 Complete relevant work related documents 1.3 Participate in workplace meeting and discussion.	<ul style="list-style-type: none"> <li>Group discussion</li> <li>Interaction</li> </ul>	<ul style="list-style-type: none"> <li>Demonstration</li> <li>Observation</li> <li>Interviews/ questioning</li> </ul>
2. Work in a team environment	2.1 Describe and identify team role and responsibility in a team 2.2 Describe work as a team member	<ul style="list-style-type: none"> <li>Discussion</li> <li>Interaction</li> </ul>	<ul style="list-style-type: none"> <li>Demonstration</li> <li>Observation</li> <li>Interviews/ questioning</li> </ul>
3. Practice career professionalism	3.1 Integrate personal objectives with organizational goals. 3.2 Set and meet work priorities. 3.3 Maintain professional growth and development	<ul style="list-style-type: none"> <li>Discussion</li> <li>Interaction</li> </ul>	<ul style="list-style-type: none"> <li>Demonstration</li> <li>Observation</li> <li>Interviews / questioning</li> </ul>
4. Practice occupational health and safety procedures	4.1 Identify hazards and risks 4.2 Evaluate hazard and risks 4.3 Control hazards and risks 4.4 Maintain occupational health and safety awareness	<ul style="list-style-type: none"> <li>Discussion</li> <li>Plant tour</li> <li>Symposium</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> <li>Interview</li> </ul>

**COMMON COMPETENCIES**  
(18 Hours)

<b>Unit of Competency</b>	<b>Learning Outcomes</b>	<b>Methodology</b>	<b>Assessment Approach</b>
1. Prepare construction materials and tools	1.1 Identify materials and tools 1.2 Requisition equipment, materials and tools 1.3 Receive and inspect materials	Audio Visual Simulation Discussion Practical Exercise Demonstration	Direct observation Questions or interview Portfolio (credentials) Written / Oral Test Demonstration
2. Observe procedures, specifications and manuals of instructions	2.1 Identify and access specification/ manuals 2.2 Interpret manuals 2.3 Apply information in manual 2.4 Store manuals	Audio Visual Simulation Discussion Practical Lab Demonstration	Direct observation Oral questioning Written test or examination Third party report Demonstration (able to impart knowledge and skills)
3. Perform mensuration and calculation	3.1 Select measuring instruments 3.2 Carry out measurements and calculations	Audio Visual Simulation Discussion Practical Lab Demonstration	Direct observation Oral questioning 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 4.2 Perform basic preventive maintenance 4.3 Store tools and equipment	Audio Visual Simulation Discussion Practical Lab Demonstration	Direct observation of application of tasks Oral questioning Written test or examination Third party report Demonstration
5. Interpret technical drawings and plans	5.1 Analyze signs, symbols and data 5.2 Interpret technical drawings and plans 5.3 Apply freehand sketching	Lecture Demonstration Practical exercises	Demonstration and oral questioning Written test

## CORE COMPETENCIES (24 Hours)

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Operate Construction Lift Passenger/ Material Elevator	1.1 Perform before operation activities 1.2 Transport passenger and materials 1.3 Enforce safety standards 1.4 Perform after operation activities	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Self paced instruction</li> <li>• Demonstration</li> <li>• Practical exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Observation/ demonstration</li> <li>• Written/oral questioning</li> </ul>

### 3.2 TRAINING DELIVERY

The delivery of training should adhere to the design of the curriculum. Delivery should be guided by the 10 basic principles of competency-based TVET:

- The training is based on curriculum developed from the competency standards;
- Learning is modular in its structure;
- Training delivery is learner-centered and should accommodate individualized and self-paced learning strategies;
- Training is based on work that must be performed;
- Training materials are directly related to the competency standards and the curriculum modules;
- Assessment is based in the collection of evidence of the performance of work to the industry required standard;
- Training is based both on and off-the-job components;
- Training program allows for recognition of prior learning (RPL) or current competencies;
- Training allows for multiple entry and exit; and
- Training programs are registered with the UTPRAS.

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 may be adopted when designing training programs:

- The dualized mode of training delivery is preferred and recommended. Thus programs would contain both in-school and in-industry training or fieldwork components. Details can be referred to the Dual Training System (DTS) Implementing Rules and Regulations.
- Modular/self-paced learning is a competency-based training modality wherein the trainee is allowed to progress at his own pace. The trainer facilitates the training delivery
- Peer teaching/mentoring is a training modality wherein fast learners are given the opportunity to assist the slow learners.
- Supervised industry training or on-the-job training is an approach in training designed to enhance the knowledge and skills of the trainee through actual experience in the workplace to acquire specific competencies prescribed in the training regulations.
- Distance learning is a formal education process in which majority of the instruction occurs when the students and instructor are not in the same place. Distance learning may employ correspondence study, or audio, video or computer technologies.
- Project-Based Instruction is an authentic instructional model or strategy in which students plan, implement and evaluate projects that have real world applications.

### 3.3 TRAINEE ENTRY REQUIREMENTS

This section specifies the qualifications of trainees and educational experience. Other requirements like health and physical requirements may also be stated. Passing written entrance examinations may also be indicated if necessary.

- At least high school graduate or vocational school graduate
- Can communicate both orally and written
- Physically fit and mentally healthy
- With good moral character
- Can perform basic mathematical computation and mensuration
- Legal age with NSO Birth Certificate

### 3.4 LIST OF TOOLS, EQUIPMENT AND MATERIALS FOR CONSTRUCTION LIFT PASSENGER/ MATERIAL ELEVATOR OPERATION NC II

Based on the size of class of 25 students / trainees.

TOOLS		EQUIPMENT		MATERIALS	
QTY.	ITEM	QTY.	ITEM	QTY.	ITEM
25 pcs.	Full body harness	1 unit	Construction lift passenger/ material elevator	4 ltr.	Multi-purpose grease
1 pc.	Grease gun			12 cans	Penetrating oil
1 pc.	Oiler			4 ltr.	Gear oil
1 pc. each	Adjustable wrench (6", 10", 12",24")			4 ltr.	Hydraulic oil
1 set	Box and open-end wrench			1 kg.	Cotton rags
1 set	Allen wrench			1 gallon	Cleaning solvent
1 set	Socket wrench			1 unit	Fire extinguisher
2 pcs	Pipe wrench 12"			25 pcs.	Goggles
1 set	Safety pliers and cutter			25 pcs.	Gloves
1 set	Screw driver			25 pcs.	Dust mask
12 pcs.	Putty knife			25 pcs.	Hard hat
5 pcs.	Ballpeen hammer (8 oz.)				
5 pcs.	Rubber Mallet ( ½ kg.)			<b>TRAINING MATERIALS</b>	
1 pc.	Crow bar			Elevator operation and maintenance manual	
				Inspection checklist	
				Learning materials/ reference books	

### 3.5 TRAINING FACILITIES

The training facility is based on the size of class of 25 students / trainees.

<u>Space Requirement</u>	<u>Size in Meters</u>	<u>Area in Sq. Meters</u>	<u>Total Area in Sq. Meters</u>
Student/Trainee Working Space		<u>30 sq m.</u>	<u>30</u>
Lecture Room		<u>40</u>	<u>40</u>
Learning Resource Center		<u>20</u>	<u>20</u>
Tool Room/Storage		<u>20</u>	<u>20</u>
Wash room/ CR		<u>10</u>	<u>10</u>
<b><u>TOTAL AREA</u></b>			<b><u>120</u></b>

### 3.6 TRAINER'S QUALIFICATION FOR CONSTRUCTION LIFT PASSENGER/ MATERIAL ELEVATOR OPERATION NC II

- Must be a holder of National TVET Trainers Certificate level I (NC + TM)
- At least bachelor's degree or college level
- Must be physically and mentally fit
- Holder of Construction Occupational Safety and Health (COSH) Certificate
- Good moral character

Reference: TESDA Board Resolution No. 2004-03

### 3.7 INSTITUTIONAL ASSESSMENT

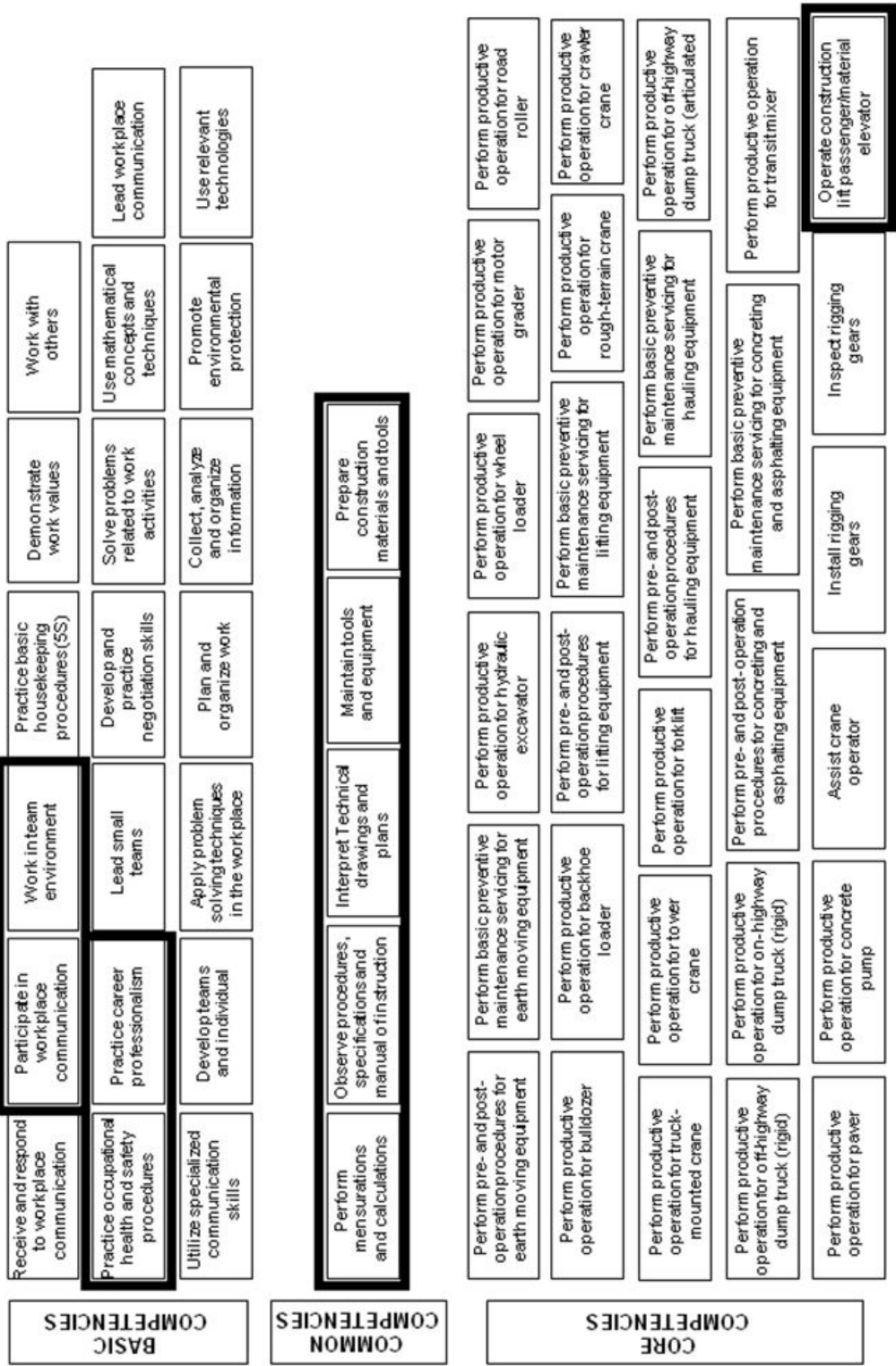
Institutional assessment is undertaken by trainees to determine their achievement of units of competency. A certificate of achievement is issued for each unit of competency.

## SECTION 4 NATIONAL ASSESSMENT AND CERTIFICATION ARRANGEMENTS

- 4.1. To attain the National Qualification of **Construction Lift Passenger/ Material Elevator Operation NC II**, the candidate must demonstrate competence through project-type assessment covering all the units listed in Section 1. Successful candidates shall be awarded a National Certificate signed by the TESDA Director General.
- 4.2. Assessment shall focus on the core unit of competency, operate construction lift passenger/ material elevator. The basic and common units shall be integrated or assessed concurrently with the core units.
- 4.3. The following are qualified to apply for assessment and certification:
  - 4.3.1 Graduates of formal, non-formal and informal including enterprise-based training programs.
  - 4.3.2 Experienced Workers (wage employed or self-employed)
- 4.4. The guidelines on assessment and certification are discussed in detail in the Procedures Manual on Assessment and Certification and the Guidelines on the Implementation of the Philippine TVET Qualification and Certification System (PTQCS).



**COMPETENCY MAP**  
CONSTRUCTION LIFT PASSENGER/MATERIAL  
ELEVATOR OPERATION NC II



## DEFINITION OF TERMS

1. Competency Is the application of knowledge, skills and attitudes to perform work activities to the standard expected in the workplace.
2. Certification Refers to the process of verifying and validating competencies of a person through assessment.
3. 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.
4. 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.
5. Girder Refers to a large beam made of metal or concrete
6. 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.
7. 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.
8. Range of Variable It describes the circumstances or context in which the work is to be performed.
9. Slabs Refers to a part of a reinforced concrete floor, roof or platform which spans beams, columns, walls or piers
10. Unit of Competency Refers to a discrete aspect of work, which would normally be performed by only one person.
11. Visual inspection Refers to the inspection performed using sight.
12. Operation check Refers to the checking performed prior to elevator operation.
13. Abnormalities Refers to the irregularities experienced during the operation of the elevator.
14. Lubricants A substance, such as grease or oil, that reduces friction when applied as a surface coating to moving parts.
15. Elevator A platform or an enclosure raised and lowered in a vertical shaft to transport people or freight.
16. Stowed The state of being stored or parked.
17. Load lift capacity Refers to the allowable weight limit to be transported by the lift.

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