

COMPETENCY STANDARD FOR CARPENTRY

Level: 1

(Furniture Sector)

Competency Standard Code: CS-FS-Crp-L1-EN-V1



National Skills Development Authority Prime Minister's Office Government of the People's Republic of Bangladesh

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This Competency Standard for **Carpentry** is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

This document has been validated by NSDA in association with Furniture Sector, industry representatives, academia, related specialist, trainer and related employee.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

Introduction

The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skills ecosystem and delivery mechanism through a combination of well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program. **Carpentry** is selected as one of the priority occupations of **Furniture Sector**. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Council (ISC), employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of trainees enrolled in Skills Training. Trainees who successfully pass the assessment will receive a qualification in the National Skills Qualification Framework (NSQF) under Bangladesh National Qualification Framework and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding Elements.

Overview

A competency standard is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of representative from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in **Furniture Sector**.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasizing what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guides

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key components of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

Competency Standards for National Skill Certificate, Level-1 in Carpentry of Furniture Sector

Level Descriptors of NSQF (BNQF 1-6)

Level & Job classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower- level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.		Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

List of Abbreviations

CS	Competency Standard
ISC	Industry Skills Council
NSDA	National Skills Development Authority
NSQF	National Skills Qualifications Framework
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
SCVC	Standards and Curriculum Validation Committee
STP	Skills Training Provider
SOP	Standard Operating Procedure
UoC	Unit of Competency
ISO	International Organization for Standardization
MSDS	Material Safety Data Sheet
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
SOP	Standard Operating Procedures

Approved by

---th Executive Committee (EC) Meeting of NSDA

Held on -----

Deputy Director (Admin) and Officer of Secretarial Duties for EC meeting National Skills Development Authority

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OU-FUR-Crp-06-L1-V1: Assemble of Simple Furniture Components
Development of Competency Standard

Competency Standards for National Skill Certificate, Level- 1 in Carpentry of Furniture Sector

Course Structure

SL No	Unit code and Title UOC Level			Nominal (hours)	
	Generic Units of Competencies				
1.	GU-01-L2-V1	Perform computations using basic mathematical concepts	2	15	
2.	GU-02-L2-V1	Apply Occupational Safety and Health (OSH) Procedure in the Workplace	2	15	
3.	GU-12-L2-V1	Communicate in the Workplace	2	20	
Sub 7	Fotal			50	
Secto	or Specific Units of Co	mpetencies			
4.	SU-FUR-01-L1-V1	Use Measuring Tools and Equipment	1	20	
5.	SU-FUR-02-L1-V1	Interpret Technical Drawing	1	20	
6.	SU-FUR-03-L1-V1	Prepare Wood for Work	1	20	
Sub Total			60		
Occupation Specific Units of Competencies					
7.	OU-FUR-Crp-01-L1-V1	Use Hand Tools and Portable Power Tools	1	40	
8.	OU-FUR-Crp-02-L1-V1	Select Timber for Furniture	1	30	
9.	OU-FUR-Crp-03-L1-V1	Make Simple Wooden Joint by Hand	1	50	
10.	OU-FUR-Crp-04-L1-V1	Make Simple Furniture Components	1	50	
11.	OU-FUR-Crp-05-L1-V1	Use Hardware	1	40	
12.	OU-FUR-Crp-06-L1-V1	Assemble of Simple Furniture Components	1	40	
Sub Total			250		
Total Duration			360		

Units & Elements at Glance

Generic Units of Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
GU-01-L2-V1	Perform computations using basic mathematical concepts	 Identify calculation requirements in the workplace Select appropriate mathematical methods for the calculation. Use tool/instrument to perform calculations 	15
GU-02-L2-V1	Apply Occupational Safety and Health (OSH) procedure In the Workplace	 Identify OSH policies and procedures Follow OSH procedure Report hazards and risks Respond to emergencies Maintain personal well-being 	15
GU-12-L2-V1	Communicate in the Workplace	 Receive verbal instructions. Interpret verbal and written information/ instructions Convey instructions using verbal and written forms of communication Complete written documentation Participate in work place meetings and discussions 	20
Total hours			500

Sector Specific Units of Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
SU-FUR-01-L1-V1	Use Measuring Tools and Equipment	 Select measuring instruments Carry out measurements and calculation Maintain measuring instruments 	20
SU-FUR-02-L1-V1	Interpret Technical Drawing	 Select technical drawing Interpret technical drawing 	20
SU-FUR-03-L1-V1	Prepare Wood for Work	 Select wood and wood substitutes Prepare work piece Preserve wood 	20
		Total hours	60

Occupation Specific Units of Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
OU-FUR-Crp-01-L1- V1	Use Hand and Portable Power Tools for Furniture Sector	 Prepare for works Prepare hand and power tools Apply hand and power tools Maintain hand and power tools 	40
OU-FUR-Crp-02-L1- V1	Select Timber for Furniture	 Determine timber requirement Evaluate timber 	30
OU-FUR-Crp-03-L1- V1	Make Simple Wooden Joint by Hand	 Plan and prepare for work Make joint Maintain equipment and workplace 	50
OU-FUR-Crp-04-L1- V1	Make Simple Furniture Components	 Prepare for work Make furniture components Maintain equipment and workplace 	50
OU-FUR-Crp-05-L1- V1	Use Hardware	 Prepare for work Set hardware Clean and maintain equipment and work area 	40
OU-FUR-Crp-06-L1- V1	Assemble of Simple Furniture Components	 Prepare for work Assemble simple production furniture Maintain equipment and workplace 	40
	Sub To	tal	250
	Tota	l	360

The Generic Units of Competencies

Unit Code and Title	GU-01-L2-V1: Perform Computations Using Basic		
Chine Code and The	Mathematical Concepts		
Nominal Hours	15 Hours		
Unit Descriptor	This unit of competency requires the knowledge, skills and attitude to perform computations using basic mathematical concepts in the workplace. It specifically includes the tasks of identifying calculation requirements in the workplace, selecting appropriate mathematical method/concept for the calculation and using appropriate instruments tools to perform calculation.		
	Performance Criteria		
Elements of Competency	Bold & Underlined terms are elaborated in the Range of Variables Training Components		
1. Identify calculation	1.1 Job requirements are identified		
requirements in the workplace	 1.2 <u>Measurements</u> are selected in accordance with job requirement 1.3 Calculation requirements are identified from <u>workplace</u> <u>information</u> 		
2. Select appropriate	2.1 Mathematical methods are identified		
mathematical methods for the calculation.	 2.2 <u>Appropriate method</u> is selected to carry out the calculation re quirements 2.3 Tolerance and clearance limits are identified and adjusted 		
	according to the job requirements		
3. Use tool/instrument to perform calculations	 3.1 Work instructions are confirmed and applied to the job in hand 3.2 Materials to be measured are identified as per job specification 3.3 Appropriate <u>tool/ instrument</u> is selected based on materials to be measured 		
Range of Variables			
Variable	Range (may include but not limited to)		
1. Measurements	1.1Length1.2Width1.3Weight1.4Tolerance		
2. workplace information	 2.1 Job Order 2.2 Design 2.3 Working drawing 2.4 Verbal instructions 2.5 Written Instruction 		
3. Appropriate method	 3.1 Addition 3.2 Subtraction 3.3 Division 3.4 Multiplication 3.5 Conversion 3.6 Percentage and ratio calculation 		

	4.1 Calculator	
	4.2 Scale	
4. Tool/ Instrument		
	4.4 Marker	
Evidence Guide		
	hentic, valid, sufficient, reliable, consistent and recent and meet the	
requirements of the current	version of the Unit of Competency.	
	Assessment required evidence that the candidate:	
	1.1 identified calculation requirements from workplace	
	information	
	1.2 selected appropriate method to carry out the calculation	
	requirements	
1. Critical Aspects of	1.3 selected measurements	
Competency	1.4 selected appropriate methods	
	1.5 used tool/instrument	
	1.6 added numbers	
	1.7 subtracted numbers	
	 1.8 multiplied numbers. 1.9 divided numbers. 	
	1.9 divided numbers.1.10 completed calculations using appropriate tools/instruments	
	2.1. Numerical concept	
	2.2. Basic mathematical methods such as addition, subtraction, m	
2. Underpinning	ultiplication and division and percentage.	
Knowledge	2.3. Mathematical language, symbols and terminology.	
	2.4. Measuring units	
	3.1 Interpret numerical concept	
	3.2 Interpret mathematical methods such as addition, subtraction,	
3. Underpinning Skills	multiplication and division and percentage.	
	3.3 Interpret mathematical language, symbols and terminology.	
	3.4 Interpret measuring units	
	4.1. Commitment to occupational health and safety	
	4.2. Environmental concerns	
4. Underpinning	4.3. Eagerness to learn	
Attitudes	4.4. Tidiness and timeliness	
	4.5. Respect for rights of peers and seniors in workplace	
	4.6. Communication with peers and seniors in workplace	
	5.1. Work place Procedure	
5. Resource Implications	5.2. Materials relevant to the proposed activity	
	5.3. All tools, equipment, material and documentation required.	
	5.4. Relevant specifications or work instructions	
	6.1. Written Test	
6. Methods of	6.2. Demonstration	
Assessment	6.3. Oral Questioning	
	6.4. Portfolio	
	7.1. Competency assessment must be done in a NSDA accredited	
7. Context of Assessment	assessment center	
	7.2. Assessment should be done by an NSDA certified/ nominated	
	assessor	

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NSQF/BNQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

	GU-02-L2-V1: Apply Occupational Safety and Health (OSH)		
Unit Code and Title	Procedure in the Workplace		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to apply occupational safety and health (OSH) procedure in the workplace. It specifically includes the task of identifying OSH policies and procedures, following OSH procedure, reporting hazards and risks, responding to emergencies and maintaining personal well-being.		
Nominal Hours	15 Hours		
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables		
1. Identify OSH	1.1. OSH policies and safe operating procedures are accessed and		
policies and	stated		
procedures	1.2. <u>Safety signs and symbols</u> are identified and followed		
	1.3. Emergency response, evacuation procedures and other contingency measures are determined according to workplace requirements		
2. Follow OSH	2.1 Personal protective equipment (PPE) is selected and collected		
procedure	as required		
	2.2 Personal protective equipment (PPE) is correctly used in accordance with organization OSH procedures and practices		
	2.3 A clear and tidy workplace is maintained as per workplace standard		
	2.4 PPE is maintained to keep them operational and compliant with OSH regulations		
3. Report hazards and	3.1 Hazards and risks are identified, assessed and controlled		
risks	3.2 Incidents arising from hazards and risks are reported to designated authority		
4. Respond to	4.1 Alarms and warning devices are responded		
emergencies	4.2 Workplace <u>emergency procedures</u> are followed		
	4.3 <u>Contingency measures</u> during workplace accidents, fire and other emergencies are recognized and followed in accordance with organization procedures		
	4.4 First aid procedures are applied during emergency situations		
5. Maintain personal well-being	5.1 OSH policies and procedures are adhered to OSH awareness programs are participated in as per workplace guidelines and procedures.		
	5.2 Corrective actions are implemented to correct unsafe condition in the workplace		
	5.3 <u>"Fit to work" records</u> are updated and maintained according to workplace requirements		
Range of Variables			

Variables	Range (may include but not limited to):		
1. OSH policies	1.1.	Bangladesh standards for OSH	
	1.2.	Fire Safety Rules and Regulations	
	1.3.	Code of Practice	
	1.4.	Industry Guidelines	
2. Safe operating	2.1	Orientation on emergency exits, fire extinguishers, fire escape,	
procedures		etc.	
	2.2	Emergency procedures	
	2.3	First Aid procedures	
	2.4	Tagging procedures	
	2.5	Use of PPE	
	2.6	Safety procedures for hazardous substances	
3. Safety signs and	3.1	Direction signs (exit, emergency exit, etc.)	
symbols	3.2	First aid signs	
	3.3	Danger Tags	
	3.4	Hazard signs	
	3.5	Safety tags	
	3.6	Warning signs	
4. Personal Protective	4.1	Gas Mask	
Equipment (PPE)	4.2	Gloves	
	4.3	Safety boots	
	4.4	Face mask	
	4.5	Overalls	
	4.6	Goggles and safety glasses	
	4.7	Sun block	
	4.8	Chemical/Gas detectors	
5. Hazards	5.1	Chemical hazards	
	5.2	Biological hazards	
	5.3	Physical Hazards	
	5.4	Mechanical and Electrical Hazard	
	5.5	Mental hazard	
	5.6	Ergonomic hazard	
6. Emergency	6.1	Fire fighting	
procedures	6.2	Earthquake	
	6.3	Medical and first aid	
	6.4	Evacuation	
7. Contingency	7.1	1 Evacuation	
measures	7.2	Isolation	
	7.1	Decontamination	
8. "Fit to Work"	8.1	Medical Certificate every year	
records	8.2	Accident reports, if any	
	8.3	Eye vision certificate	

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency

requirements of current version of the Onit of Competency			
	Asse	ssment required evidence that the candidate:	
	1.1	stated OSH policies and safe operating procedures	
	1.2	followed safety signs and symbols	
1. Critical aspects of	1.3	used personal protective equipment (PPE)	
competency	1.4	maintained workplace clear and tidy	
competency	1.5	assessed and Controlled hazards	
	1.6	followed emergency procedures	
	1.7	followed contingency measures	
	1.8	implemented corrective actions	
	2.1	Define OSH	
	2.2	OSH Workplace Policies and Procedures	
	2.3	Work safety procedures	
2 Underninning	2.4	Emergency procedures	
2. Underpinning knowledge	2.5	Hazard control procedure	
Kilowieuge	2.6	Different types of hazards	
	2.7	PPE and there uses	
	2.8	Personal hygiene practices	
	2.9	OSH awareness	
	3.1	Accessing OSH policies	
	3.2	Using of PPE	
3. Underpinning skills	3.3	Handling cleaning tools and equipment	
	3.4	Writing report	
	3.5	Responding to emergency procedures	
	4.1	Commitment to occupational health and safety	
	4.2	Sincere and honest to duties	
	4.3	Promptness in carrying out activities	
1 Required attitude	4.4	Environmental concerns	
4. Required attitude	4.5	Eagerness to learn	
	4.6	Tidiness and timeliness	
	4.7	Respect of peers and seniors in workplace	
	4.8	Communicate with peers and seniors in workplace	
	5.1	Workplace	
5. Resource	5.2	Equipment and outfits appropriate in applying safety measures	
implications	5.3	Tools, equipment, materials and documentation required	
	5.4	OSH Policies and Procedures	
	Com	petency should be assessed by:	
6. Methods of	6.1	Written test	
assessment	6.2	Demonstration	
	6.3	Oral questioning	
	1		

	7.1	Competency assessment must be done in NSDA accredited
7. Context of		assessment centre
assessment	7.2	Assessment should be done by a NSDA certified/nominated
		assessor

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	GU-12-L2-V1: Communicate in the Workplace	
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to communicate in the workplace. It specifically includes the task of receiving verbal instructions, interpreting verbal and written information/ instruction, conveying instructions using verbal and written forms of communication, completing written documentation and participating in workplace meetings and discussions.	
Nominal Hours	20 Hours	
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables	
1. Receive verbal instructions.	 Instructions are accessed and interpreted Questions are asked to clarify understanding or gain more information. Information/instruction is recorded. 	
2. Interpret verbal and written information/ instructions	 2.1 Written instructions are interpreted. 2.2 Work signage's are properly responded. 2.3 Routine written instructions are followed in sequence. 2.4 Feedback is given to workplace supervisor. 	
3. Convey instructions using verbal and written forms of communication	 3.1 Relevant <u>communication</u> methods are used to transmit instructions. 3.2 Appropriate non-verbal communication is used. 3.3 Channels of communication are identified and followed 3.4 Communication <u>tools and equipment</u> are operated and faults are identified and reported. 3.5 Information is conveyed using appropriate <u>forms</u>. 	
4. Complete written documentation	 4.1 All required <u>documentation</u> is completed 4.2 Workplace data are recorded 4.3 Written information/instruction is passed to personnel. 	
5. Participate in work place meetings and discussions	 5.1 Meetings are attended regularly and on time. 5.2 Meeting inputs are consistent with the meeting purpose and established protocols. 5.3 Opinions are expressed without interruption. 5.4 Meeting outputs are processed and implemented. 	
Range of Variables		
Variables	Range (may include but not limited to):	
1. Written instructions	 Supervisor's/manager's instructions Memoranda Rules and regulations 	

	1.4 Signage
	1.5 Approved work plan
	1.6 External communications
	2.1. On-site direction signs
2. Signage	2.1. Common site warnings
	2.2. Common site warnings 2.3. Location signs
	2.4. Traffic signs3.1 Verbal instructions
3. Communication	3.1 Verbal instructions 3.2 Written instructions
5. Communication	
	3.3 Online communication
	4.1 workplace (actual or simulated)
	4.2 Telephone
	4.3 Mobile phone
4. Tools and	4.4 Fax machines
machinery	4.5 Two-way radio
	4.6 Computers
	4.7 Forms
	4.8 Memo
	5.1 Memorandum
5. Forms	5.2 Requisitioning form
5. 1 01115	5.3 Personnel form
	5.4 Safety report form
	6.1 Reports (Monthly, Quarterly, Half-Yearly, Annual)
6. Documentation	6.2 Plans (Strategic Plan, Operational Plan, Monthly Schedule)
0. Documentation	6.3 Monitoring and Evaluation Report
	6.4 Minutes of Meetings
Evidence Guide	
The evidence must	be authentic, valid, sufficient, reliable, consistent, recent and meet all
requirements of curr	ent version of the Unit of Competency
	Assessment required evidence that the candidate:
1. Critical aspects	1.1 demonstrated knowledge of workplace procedures in receiving,
of competency	interpreting and conveying verbal & written communication.
of competency	1.2 satisfied the requirements mentioned in the Performance Criteria
	and Range of Variables.
	2.1 Workplace Communication Policies, Standards and Procedures
	2.2 Verbal and non-verbal communication
2. Underpinning	2.3 Modes of communication
knowledge	2.4 Communication equipment: types, uses and faults
	2.5 Channels of communication
	3.1 Receiving verbal instructions.
3. Underpinning	3.2 Interpreting verbal and written information/ instruction
skills	3.3 Conveying instructions using verbal and written forms
	5.5 Conveying instructions using verous and written forms

	3.4 of communication
	3.5 Completing written documentation
	3.6 Participating in workplace meetings and discussions
	4.1 Commitment to occupational health and safety
	4.2 Sincere and honest to duties
	4.3 Promptness in carrying out activities
4. Required	4.4 Environmental concerns
attitude	4.5 Eagerness to learn
	4.6 Tidiness and timeliness
	4.7 Respect of peers and seniors in workplace
	4.8 Communicate with peers and seniors in workplace
	5.1 workplace (actual or simulated)
	5.2 Pens
5. Resource	5.3 Telephone
implications	5.4 Computer
	5.5 Writing materials
	5.6 Online communication
	Competency should be assessed by:
6. Methods of	6.1 Written test
assessment	6.2 Demonstration
	6.3 Oral questioning
	7.1 Competency assessment must be done in NSDA accredited
7. Context of	assessment centre
assessment	7.2 Assessment should be done by a NSDA certified/nominated
	assessor
Accreditation Reg	Juirements

ditation Requirements Α

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

The Sector Specific Competencies

Unit Code and Title	SU-FUR-01-L1-V1: Use Measuring Instruments		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to use measuring instruments. It specifically includes the tasks of selecting measuring instruments, carrying out measurements and calculation and maintaining measuring instruments.		
Nominal Hours	20 Hours		
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables		
1. Select measuring instruments	 1.1 Object or component to be measured is identified. 1.2 Correct specifications are obtained from relevant source 1.3 Required <u>measuring instruments</u> is selected in accordance with job requirements. 1.4 Measuring instruments are calibrated as per standard if necessary; 		
2. Carry out measurements and calculation	 2.1 Accurate measurements are obtained in accordance with job requirement. 2.2 <u>Basic calculation</u> needed to complete work tasks are performed. 2.3 Calculations involving fractions, percentages and mixed numbers are used to complete workplace tasks. 2.4 Numerical calculation is checked and corrected for accuracy in accordance with job requirement. 2.5 Instruments are read according to the limit of accuracy; 		
3. Maintain measuring instruments	3.1 Measuring instruments are checked for damage prior to storage.3.2 Measuring instruments are cleaned before and after using.		
Range of Variables	Range of Variables		
Variable	Range (may include but not limited to):		
1. Measuring instruments	 1.1 Measuring tape 1.2 Callipers (inside-outside) 1.3 Vernier Callipers 1.4 Thickness gauge 1.5 Torque gauge 1.6 Try square 1.7 Bevel Square 1.8 Rafter Square 1.9 Protractor 1.10 Spirit Level 		

	1.11 Steel rule
	1.12 Moisture Meter
	1.13 Thermometer
	1.14 T square
	2.1 Volume
	2.2 Area
	2.3 Displacement
	2.4 Circumference
	2.5 Diameter
2. Basic calculation	2.6 Radius
	2.7 Length
	2.8 Thickness
	2.9 Outside diameter
	2.10 Taper
Evidence Guide	2.10 1400
	uthentic, valid, sufficient, reliable, consistent, recent and meet all
	version of the Unit of Competency.
	Assessment required evidences that the candidate:
1. Critical aspects of	-
-	1.1 selected measuring instruments
competency	1.2 carried-out measurements and calculations
	1.3 maintained measuring instruments.
	2.1 Types of measuring tools and equipment.
2. Underpinning	2.2 Measuring instruments and its use.
knowledge	2.3 Formula for volume, area, perimeter and other geometric
	figures.
	3.1 Caring and handling measuring instruments.
	3.2 Calibrating and using measuring instruments.
	3.3 Performing calculation by addition, subtraction,
3. Underpinning skills	multiplication and division.
	3.4 Visualizing objects and shapes.
	3.5 Interpreting formula for volume, area, perimeter and other
	geometric figures.
	4.1 Commitment to occupational safety and health.
	4.2 Promptness in carrying out activities.
	4.3 Sincere and honest to duties.
4. Required attitudes	4.4 Eagerness to learn.
	4.5 Tidiness and timeliness.
	4.6 Environmental concerns.
	4.7 Respect for rights of peers and seniors at workplace.
	4.8 Communication with peers and seniors at workplace.

5. Resource implication	The following resources must be provided:
	5.1 workplace (actual or simulated)
	5.2 tools, equipment and physical facilities appropriate to
mpneation	perform activities
	5.3 materials and consumables needed to perform activities.
	Methods of assessment may include but not limited to:
6. Methods of	6.1 written test
	6.2 demonstration
assessment	6.3 oral questioning
	6.4 portfolio.
	7.1 Competency assessment must be done in NSDA accredited
7. Context of	assessment centre
assessment	7.2 Assessment should be done by a NSDA certified/nominated
	assessor

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Unit Code and Title	SU-FUR-02-L1-V1: Interpret Technical Drawing
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to interpret technical drawing. It specifically includes the tasks of selecting technical drawing and interpreting technical drawing.
Nominal Hours	20 Hours
Elements of Competency	Performance CriteriaBold & Underlinedterms are elaborated in the Range ofVariables
1. Select technical drawing	 1.1 <u>Drawing</u> is selected and checked to ensure that it conforms to the job requirements. 1.2 Drawing is validated by the responsible person.
2. Interpret technical drawing	 2.1 Drawing components and assemblies are identified. 2.2 Dimensions are identified in accordance with job requirement. 2.3 Components, assembles or objects are recognized as required. 2.4 <u>Symbols</u> in drawing are identified and interpreted.
Range of Variables	
Variable	Range (may include but not limited to):
1. Drawing	 1.1 Freehand sketch 1.2 Technical drawing: 1.2.1 Isometric view (Top view, side view, back panel, bottom and bit) 1.2.2 Oblique view 1.2.3 Orthographic view
2. Symbol	 2.1 Mirror / clear glass 2.2 Lock / handle / knob 2.3 Magnet 2.4 Spot light 2.5 Channel 2.6 Hinge (round / straight / half round) 2.7 Cable passing 2.8 Wood

The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.

1. Critical aspects of competency	Assessment required evidences that the candidate:1.1 identified dimension according to job requirement1.2 recorded clearances and tolerances according to the fit
	requirement 1.3 interpret drawing symbols.
2. Underpinning knowledge	2.1 Types of drawing.2.2 Types of symbols.2.3 Unit of measurements.
3. Underpinning skills	3.1 Interpreting data and instruction given in the drawing.3.2 Interpreting measurements and scale of drawing.
4. Required attitudes	 4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Environmental concerns. 4.5 Eagerness to learn. 4.6 Tidiness and timeliness. 4.7 Respect for rights of peers and seniors at workplace. 4.8 Communication with peers and seniors at workplace.
5. Resource implication	 The following resources must be provided: 5.1 workplace (actual or simulated) 5.2 tools, equipment and physical facilities appropriate to perform activities 5.3 materials and consumables needed to perform activities.
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 written test 6.2 demonstration 6.3 oral questioning 6.4 portfolio.
7. Context of assessment	 7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor

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Unit Code and Title	SU-FUR-03-L1-V1: Prepare Wood for Work
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to prepare wood for work. It specifically includes the tasks of selecting wood and wood substitutes, preparing work piece and preserving wood.
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables
1. Select wood and wood substitutes	 1.1 Occupational Safety and Health (OSH) procedures are maintained throughout the works. 1.2 <u>Wood</u> and <u>wood substitutes</u> are selected according to the requirement of works. 1.3 Quality of wood/wood substitutes are checked as per work specification.
2. Prepare work piece	 2.1 Dimension of work piece is checked according to works specification. 2.2 Damaged and unnecessary portion of wood/wood substitutes is trimmed as per workplace procedures using <u>hand tools</u> and <u>power tools.</u> 2.3 Prepared wood/wood substitutes are stored as per workplace procedures.
3. Store wood/ and wood substitutes	3.1 Wood/wood substitutes are prepared for storing;3.2 Wood/wood substitutes is stored according to workplace procedure.
Range of Variables	
Variable	Range (may include but not limited to):
1. Wood	 1.1 Teak 1.2 Garjon 1.3 Mahogany 1.4 Mango 1.5 Gamari 1.6 Korai 1.7 Oak 1.8 Beech 1.9 Teak Chambul 1.10 Chapalish 1.11 Pine wood

1	2.1 Particle board	
	2.1 Particle board 2.2 MDF board	
	2.3 HDF board	
	2.4 Veneer board	
	2.5 Ply wood	
2. Wood substitutes	2.6 Plain board	
	2.7 Wood tex	
	2.8 Formica	
	2.9 Laminating board	
	2.10 Glass Sheet	
	2.11 PVC Board	
	3.1 Measuring tape	
	3.2 Ruler	
	3.3 Try square	
	3.4 Rafter Square	
3. Hand tools	3.5 Hand saw	
	3.6 Pencil	
	3.7 Moisture me <i>ter</i>	
	3.8 Vice	
	3.9 C-Clamp	
4. Power tools	4.1 Hand circular saw	
Evidence Guide		
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all		
The evidence must be	authentic, valid, sufficient, reliable, consistent, recent and meet all	
	authentic, valid, sufficient, reliable, consistent, recent and meet all t version of the Unit of Competency.	
requirements of curren	t version of the Unit of Competency. Assessment required evidences that the candidate:	
requirements of curren	t version of the Unit of Competency. Assessment required evidences that the candidate: 1.1 maintained safety throughout the work	
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requirements of curren	t version of the Unit of Competency.Assessment required evidences that the candidate:1.1 maintained safety throughout the work1.2 identified wood and wood substitute1.3 prepared and preserved wood and wood substitute2.1 Types of wood and wood substitutes.2.2 Use of wood and wood substitutes	
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	4.1 Commitment to occupational safety and health.
	4.2 Promptness in carrying out activities.
	4.3 Sincere and honest to duties.
4 Describer destitue des	4.4 Environmental concerns.
4. Required attitudes	4.5 Eagerness to learn.
	4.6 Tidiness and timeliness.
	4.7 Respect for rights of peers and seniors at workplace.
	4.8 Communication with peers and seniors at workplace.
	The following resources must be provided:
5. Resource	5.1 workplace (actual or simulated)
	5.2 tools, equipment and physical facilities appropriate to perform
implication	activities
	5.3 materials and consumables needed to perform activities.
	Methods of assessment may include but not limited to:
6. Methods of	6.1 written test
	6.2 demonstration
assessment	6.3 oral questioning
	6.4 portfolio.
	7.1 Competency assessment must be done in NSDA accredited
7. Context of	assessment centre
assessment	7.2 Assessment should be done by a NSDA certified/nominated
	assessor
A correditation Decu	iromonta

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The Occupational Specific Competencies

Unit Code and Title	OU-FUR-Crp-01-L1-V1: Use Hand Tools and Portable Power Tools
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to use hand tools and portable power tools. It specifically includes the tasks of preparing for works, preparing, applying and maintaining hand tools and power tools.
Nominal Hours	40 Hours
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables
1. Prepare for works	 1.1 Occupational Safety and Health (OSH) requirements, are observed 1.2 Tasks are identified. 1.3 All safety procedures in using tools are observed 1.4 <u>Hand tools and portable power tools</u> are identified and selected in accordance with the task requirements.
2. Prepare hand tools and power tools	2.1 Hand tools and power tools are checked for proper operation and safety2.2 Unsafe or faulty tools are identified and marked for repair
3. Apply hand tools and power tools	3.1 Tools are used according to tasks;3.2 Malfunctions, unplanned or unusual events are reported to the supervisor.
4. Maintain hand tools and power tools	 4.1 Hand tools and power tools are checked for damage prior to storage. 4.2 Hand tools and power tools are cleaned before and after using. 4.3 Power tools are maintained using relevant lubrications as per manufacturer's instructions. 4.4 Hand tools and power tools are stored in the designated area.
Range of Variables	
Variable	Range (may include but not limited to:)
1. Hand tools	 1.1 Hand Planner 1.2 Chisel 1.3 Claw Hammer 1.4 Ball Pin Hammer 1.5 Mallet 1.6 Measuring tape 1.7 Ruler (Wood and Steel) 1.8 Try square 1.9 T Square

	110 D 10
	1.10 Bevel Square
	1.11 Rafter Square
	1.12 Marking Gauge
	1.13 Craw Bar
	1.14 Hand saw
	1.15 Screwdriver (Flat and Star)
	1.16 Wood files
	1.17 Spock Shave
	1.18 Pencil
	1.19 Sharpening stone
	1.20 Triangular file
	1.21 Moisture meter
	1.22 Vice
	1.23 C-Clamp
	1.24 Bar Clamp
	1.25 Pincers
	1.26 Nail Punch
	1.27 Hole Saw
	1.28 Spanner
	1.29 Gripper
	1.30 Pliers
	1.31 Laser Distance Meter
	1.32 Glass Holder
	1.33 Allen Key
	1.34 Anti-cutter
	2.1 Hand circular saw
	2.2 Hand jig saw
	2.3 Electric planner
	2.4 Nail Gun
	2.5 Hand Drill
2. Portable power	2.6 Screw Gun
tools	2.7 Sander Machine
	2.8 Stapler Machine
	2.9 Blower
	2.10 Hand Router
	2.11 Hand Trimmer
	2.12 Hand Grinder
	1

1. Critical aspects of competency	 Assessment required evidences that the candidate: 1.1 demonstrated safe working practices 1.2 used hand tools and portable power tools 1.3 maintained and stored hand tools and power tools.
2. Underpinning knowledge	2.1 Safety requirements in handling tools.2.2 Function, operation, common faults of tools2.3 Maintenance of tools.2.4 Storage of tools.
3. Underpinning skills	3.1 Safe handling of tools3.2 Using and maintaining hand tools and portable power tools.
4. Required attitudes	 4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Eagerness to learn. 4.5 Tidiness and timeliness. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors at workplace. 4.8 Communication with peers and seniors at workplace.
5. Resource implication	 The following resources must be provided: 5.1 workplace (actual or simulated) 5.2 tools, equipment and physical facilities appropriate to perform activities 5.3 materials, consumables to perform activities.
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 written test 6.2 demonstration 6.3 oral questioning 6.4 portfolio.
7. Contexts of assessment	 7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
Accreditation Requi	irements

Unit Code and Title	OU-FUR-Crp-02-L1-V1: Select Timber for Furniture
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to select timber for furniture. It specifically includes the tasks of determining timber requirement and evaluating timber.
Nominal Hours	30 Hours
Elements of Competency	Performance CriteriaBold & Underlinedterms are elaborated in the Range ofVariables
1. Identify timber requirement	 1.1 Occupational Safety and Health (OSH) requirements, are observed throughout the work. 1.2 Structural requirements for timbers are identified from workplace documentation. 1.3 <u>Timber</u> is assessed for suitability in accordance with selection criteria. 1.4 Job is documented as per workplace instructions. 1.5 <u>Selection criteria</u> are identified;
2. Evaluate timber	 2.1 <u>Furniture structure</u> are identified 2.2 Moisture content of selected timber is determined to ensure compliance with production requirements. 2.3 Density and working properties of timber are determined to ensure compliance with production requirements. 2.4 Timber characteristics are recorded for inclusion in production plans.
Range of Variables	
Variable	Range (may include but not limited to:)
1. Timber	1.1 Hard wood 1.2 Soft wood
2. Selection criteria	 2.1 Durability. 2.2 Strength. 2.3 Permeability. 2.4 Hardness. 2.5 Toughness. 2.6 Elasticity. 2.7 Workability. 2.8 Weight.
3. Furniture structure	 3.1 Chair 3.2 Table 3.3 Sofa 3.4 Dining table 3.5 Bed 3.6 Almirah

	3.7 Cabinet		
	3.8 Divan		
Evidence Guide			
The evidence must be	authentic, valid, sufficient, reliable, consistent, recent and meet all		
	requirements of current version of the Unit of Competency.		
	Assessment required evidences that the candidate:		
1. Critical aspects of competency	 1.1 selected timber as per requirement 1.2 followed work instructions, operating procedures and inspection practices for selecting timber 1.3 identified defective timber 1.4 evaluated timber 		
2. Underpinning knowledge	2.1 Characteristics, properties and selection criteria for timber.2.2 Workflow in relation to selection process.		
3. Underpinning skills	3.1 Selecting technique timber3.2 Following work instructions, operating procedures3.3 Identifying technique of defective timber3.4 Evaluating procedure of timber		
4. Required attitudes	 4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Eagerness to learn. 4.5 Tidiness and timeliness. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors at workplace. 4.8 Communication with peers and seniors at workplace. 		
5. Resource implication	 The following resources must be provided: 5.1 workplace (actual or simulated) 5.2 tools, equipment and physical facilities appropriate to perform activities 5.3 materials, consumables to perform activities. 		
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 written test 6.2 demonstration 6.3 oral questioning 6.4 portfolio.		
7. Contexts of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre7.2 Assessment should be done by a NSDA certified/nominated assessor		

Unit Code and Title	OU-FUR-Crp-03-L1-V1: Make Simple Wooden Joint by
	Hand
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to make simple wooden joint by hand. It specifically includes the tasks of planning and preparing for work, making joint and maintaining equipment.
Nominal Hours	50 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Plan and prepare for work	 1.1 Occupational Safety and Health (OSH) requirements, are observed throughout the work. 1.2 <u>Tools</u> and materials are identified and checked for safe and effective operation as required. 1.3 Product purpose, furniture style and joint type are identified according to job specification. 1.4 <u>Adhesives and fasteners</u> are selected to match the joint as required.
2. Make joint	 2.1 Cutting and joining lines are marked as per drawing 2.2 Measurements and calculations are checked as per specification. 2.3 <u>Wood</u> is joined as per requirement. 2.4 Fasteners and adhesives are used to make <u>joints</u> firm where required. 2.5 Finished joint is checked against <u>quality requirements</u>
3. Maintain equipment and workplace	 3.1 Unused materials are stored or recycled as required. 3.2 Tools and equipment are cleaned and stored as per workplace requirements. 3.3 Work area is cleaned and wastage disposed as per workplace requirements. 3.4 Workplace documentation and / or reports are completed.
Range of Variables	
Variable	Range (may include but not limited to:)
1. Wood	 Teak Garjon Mahogany Mango Gamari Korai Oak Teak Chambul

	1.9 Chapalish
	1.10 Pine wood
	1.11 Beech
	 2.1 Dowel Joint 2.2 Mortise and tenon 2.3 Dovetail 2.4 Lap joint
2. Joints	 2.5 Finger joint 2.6 Housing joint 2.7 Miter and bridle joints 2.8 Scurf joint 2.9 Tongue and groove 2.10 Half-Lap dovetail 2.11 T joint
3. Quality requirements	 3.1 Alignment 3.2 Tightness 3.3 Neatness 3.4 Firmness and acceptable tolerances
4. Tools	 4.1 Pencil 4.2 Chisels 4.3 Mallets 4.4 Mortise gauges 4.5 Vernier calipers 4.6 Vices 4.7 Dovetail saws 4.8 Tenon saws 4.9 Planner 4.10 Files 4.11 Marking gauges 4.12 Tri-Square 4.13 Beveled square 4.14 Hammer
5. Adhesive	5.1 Synthetic rubber adhesive5.2 Urea formaldehyde glue5.3 Para formaldehyde5.4 Super glue
6. Fastener	 6.1 Nail 6.2 Screw 6.3 Dowel 6.4 Joint bolt

	Assessment required evidences that the candidate:
1. Critical aspects of competency	1.1 selected tools and materials
	1.2 ensured measurement and calculation
	1.3 marked joining line and cutting
	1.4 performed joint
	1.5 checked the quality of finished joint
	2.1 Types and uses of wooden joints
2 Undominning	2.2 Procedure of wooden joints
2. Underpinning	2.3 Select adhesives and fasteners
knowledge	2.4 Procedure of use adhesive and fasteners
	2.5 Quality checking procedure of wooden joints
	3.1 Identifying tools and materials.
2 Undersinging	3.2 Marking joining line and cutting.
3. Underpinning	3.3 Making wooden joints.
skills	3.4 Using adhesive and fastener.
	3.5 Checking procedure of quality
	4.1 Commitment to occupational safety and health.
	4.2 Promptness in carrying out activities.
	4.3 Sincere and honest to duties.
	4.4 Eagerness to learn.
4. Required attitudes	4.5 Tidiness and timeliness.
	4.6 Environmental concerns.
	4.7 Respect for rights of peers and seniors at workplace.
	4.8 Communication with peers and seniors at workplace.
	The following resources must be provided:
5. Resource	5.1 workplace (actual or simulated)
implication	5.2 tools, equipment and physical facilities appropriate to perform
I ·····	activities
	5.3 materials, consumables to perform activities
	Methods of assessment may include but not limited to:
	6.1 written test
6. Methods of	6.2 demonstration
assessment	6.3 oral questioning
	6.4 portfolio.
	S. Portono.

	7.1 Competency assessment must be done in NSDA accredited
7. Contexts of	assessment centre
assessment	7.2 Assessment should be done by a NSDA certified/nominated
	assessor

Unit Code and Title	OU-FUR-Crp-04-L1-V1: Make Simple Furniture
Unit Coue and Thie	Components
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to make simple furniture components. It specifically includes the tasks of preparing for work, making furniture components and maintaining equipment.
Nominal Hours	50 Hours
	Performance Criteria
Elements of Competency	<u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Prepare for work	 1.1 Occupational Safety and Health (OSH) requirements, are observed throughout the work. 1.2 Work requirements are identified from drawings, specifications and instructions. 1.3 Quality assurance requirements are recognised and adhered 1.4 Tools, portable power tools and materials are selected with job requirements. 1.5 Tools, equipment and materials are prepared for work.
2. Make furniture components	 2.1 <u>Furniture components</u> are selected 2.2 Furniture components are marked as per drawing 2.3 Furniture components are prepared 1.1 Furniture components are completed and checked as per drawing
 Maintain equipment and workplace 	 1.2 Unused materials are stored or recycled as per work place procedure. 1.3 Tools and equipment are cleaned and stored in the designated places. 1.4 Work area is cleaned and wastage are disposed of as per workplace procedure. 1.5 Workplace documentation and / or reports are completed as required.
Range of Variables	
Variable	Range (may include but not limited to:)
1. Tools	 1.1. Hand Planner 1.2. Chisel 1.3. Claw Hammer 1.4. Ball Pin Hammer 1.5. Mallet 1.6. Measuring tape 1.7. Ruler 1.8. Try square 1.9. Bevel Square 1.10. Rafter Square 1.11. Marking Gauge

	1.12. Craw Bar
	1.13. Hand saw
	1.14. Screwdriver
	1.15. Wood files
	1.16. Spock Shave
	1.17. Pencil
	1.18. Sharpening stone
	1.19. Triangular file
	1.20. Vice
	1.21. C-Clamp
	1.22. Bar Clamp
	1.23. Pincers
	1.24. Nail Punch
	1.25. Pliers
	1.26. Allen Key
	1.27. Anti-cutter
	2.1. Jointer planner
2. Portable power	2.2. Thickness planner
tools	2.3. Circular saw
	2.4. Bench drill
	3.1 Teak
	3.2 Garjon
	3.3 Mahogany
	3.4 Mango
	3.5 Gamari
	3.6 Korai
	3.7 Oak
	3.8 Teak Chambul
	3.9 Chapalish
	3.10 Pine wood
	3.11 Beech
3. Materials	3.12 Particle board
	3.13 MDF board
	3.14 HDF board
	3.15 Veneer board
	3.16 Ply wood
	3.17 Plain board
	3.18 Wood tex
	3.19 Formica
	3.20 Laminating board
	3.21 Glass Sheet
	3.22 PVC Board
	1.1 Top
	1.2 Side
	1.3 Bottom
4. Furniture	
components	1.4 Shelve
1	1.5 Partition
	1.6 Drawer
	1.7 Shutter
L	

	1.8 Rail	
	1.9 Leg	
Evidence Guide		
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.		
1. Critical aspects of competency	 Assessment required evidences that the candidate: 1.1 selected tools, equipment and materials 1.2 marked and cut furniture components 1.3 made simple furniture components as per standards 1.4 finished furniture components. 1.5 cleaned and maintained tools and equipment 	
2. Underpinning knowledge	 2.1 Drawings, specifications and instructions. 2.2 Characteristics and selection criteria of materials used for the construction of simple furniture components. 2.3 Procedure for making furniture components; 2.4 Quality assurance requirements for finish products; 2.5 Maintenance procedure; 	
3. Underpinning skills	3.1 Selecting tools, equipment and materials.3.2 Marking and cutting of the components.3.3 Finishing furniture components.	
4. Required attitudes	 4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Eagerness to learn. 4.5 Tidiness and timeliness. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors at workplace. 4.8 Communication with peers and seniors at workplace. 	
5. Resource implication	 The following resources must be provided: 5.1 workplace (actual or simulated) 5.2 tools, equipment and physical facilities appropriate to perform activities 5.3 materials, consumables to perform activities. 	
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 written test 6.2 demonstration 6.3 oral questioning 6.4 portfolio.	

	7.1 Competency assessment must be done in NSDA accredited	
7. Contexts of	assessment centre	
assessment	7.2 Assessment should be done by a NSDA certified/nominated	
	assessor	

Unit Code and Title	OU-FUR-Crp-05-L1-V1: Use Hardware		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to use hardware. It specifically includes the tasks of preparing for work, setting hardware and cleaning and maintaining equipment.		
Nominal Hours	40 Hours		
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables		
1. Prepare for work	 1.1 Occupational Safety and Health (OSH) requirements, are observed 1.2 Work instructions are to determine job requirements, including design, colour, finish process and required hardware quality. 1.3 Hardware and accessories are identified and selected for the work. 1.4 Hand tools and portable power tools are identified and checked for safe and effective operation. 		
2. Set hardware	 2.1 Hardware items where to be placed are marked as per work design. 2.2 Hardware items are fixed in accordance with the job requirement. 2.3 Tools and machinery are used in accordance with workplace procedures. 2.4 Joining / securing process is undertaken according to workplace procedures. 2.5 Adhesives are applied according to workplace procedures and / or manufacturers' instructions. 2.6 Work is checked against required quality standards. 		
3. Clean and maintain equipment and work area	 3.1 Work area is cleaned, hand and / or power tools, equipment are cleaned, maintained and stored in accordance with workplace procedures. 3.2 Surfaces are cleaned and prepared to enable accurate colour matching. 3.3 Tools and machinery are cleaned and left in a safe mode. 3.4 Faulty and / or defective equipment is tagged and reported in accordance with workplace practices. 3.5 Unused hardware is collected and stored for reuse or disposal following workplace procedures. 3.6 Waste and scrap materials are dealt with following workplace procedures. 		
Range of Variables			

Variable	Range (may include but not limited to:)
	1.1 Handles
	1.2 Drawer Channel
	1.3 Wheel
	1.4 Magnet catches
	1.5 Roller catches
	1.6 Lock
	1.7 Screw
1 Handmann and	1.8 Nail
1. Hardware and	1.9 Push tower bolt
accessories	1.10 Magnet push
	1.11 Cable passing
	1.12 Spot light
	1.13 Housing set
	1.14 Joint bolt
	1.15 Cutter disk
	1.16 Mirror clip
	1.17 Hinges
	2.1 Chisel
	2.2 Claw Hammer
	2.3 Ball Pin Hammer
	2.4 Mallet
	2.5 Measuring tape
	2.6 Ruler
	2.7 Try square
	2.8 Bevel Square
	2.9 Rafter Square
	2.10 Marking Gauge
2. Hand tools	2.11 Screwdriver
	2.12 Wood files
	2.13 Pencil
	2.14 Hole Saw
	2.15 Spanner
	2.16 Ratchet Spanner Set
	2.17 Gripper
	2.18 Pliers
	2.19 Allen Key
	2.20 Hinge Cutter
2 Dout-1-1-	3.1 Drill Machine
3. Portable power	3.2 Screw Gun
tools	3.3 Trimmer

1. Critical aspects of competency	Assessment required evidences that the candidate:
	1.1 applied safe handling requirements for equipment, hardware
	and materials,
	1.2 followed work instructions and operating procedures;
competency	1.3 selected and applied each item in the range of hardware
	1.4 maintained required product quality
	1.5 maintained tools and equipment.
	2.1 Types, characteristics, uses and limitations of hardware.
	2.2 The interpretation of plan representation of furniture design.
2. Underpinning	2.3 The preparation of drawing / sets-outs
knowledge	2.4 Identification of hand and / or power tools, materials,
	equipment, processes and procedures.
	2.5 Workflow in relation to furniture production.
	3.1 Using tools and equipment.
3. Underpinning	3.2 Identifying hardware.
skills	3.3 Fixing and securing process of hardware.
	3.4 Maintain and store tools and equipment.
	3.5 Application of adhesives.
	4.1 Commitment to occupational safety and health.
	4.2 Promptness in carrying out activities.
	4.3 Sincere and honest to duties.
4. Required attitudes	4.4 Eagerness to learn.
	4.5 Tidiness and timeliness.
	4.6 Environmental concerns.
	4.7 Respect for rights of peers and seniors at workplace.
	4.8 Communication with peers and seniors at workplace.
	The following resources must be provided:
5. Resource	5.1 workplace (actual or simulated)
implication	5.2 tools, equipment and physical facilities appropriate to perform
mpnounon	activities
	5.3 materials, consumables to perform activities.
	Methods of assessment may include but not limited to:
6. Methods of	6.1 written test
	6.2 demonstration
assessment	6.3 oral questioning
	6.4 portfolio.
	1

	7.1	Competency assessment must be done in NSDA accredited
7. Contexts of		assessment centre
assessment	7.2	Assessment should be done by a NSDA certified/nominated
		assessor

Unit Code and Title	OU-FUR-Crp-06-L1-V1: Assemble of Simple Furniture		
	Components		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to assemble of simple furniture components. It specifically includes the tasks of preparing for work, assembling simple furniture structure and maintaining equipment.		
Nominal Hours	35 Hours		
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables		
1. Prepare for work	 1.1 Occupational Safety and Health (OSH) requirements, are observed throughout the work. 1.2 Assemble design specifications are read and interpreted; 1.3 Quality assurance requirements are recognised and adhered 1.4 Tools, equipment and materials are selected as per job requirements. 1.5 Hardware and accessories are identified. 		
2. Assemble simple furniture structure	 2.1 Tools, equipment and materials are collected to assemble <u>simple furniture structure.</u> 2.2 Components are checked against specification prior to assembly and out of specification items are rejected. 2.3 Components are assembled and checked against specification for accuracy, fit, twist and distortion. 2.4 Components are fitted as per drawing. 2.5 Hardware and accessories are applied to specification. 2.6 Product quality is checked against plans at identified checkpoints. 		
3. Maintain tools and workplace	 3.1 Unused materials are stored or recycled as required. 3.2 Tools and equipment are cleaned and stored as per workplace standard 3.3 Faulty and defective equipment is tagged and reported in accordance with workplace practices. 3.4 Workplace documentation and /or reports are completed. 		
Range of Variables			
Variable	Range (may include but not limited to:)		

	1.1 Table
1. Simple furniture	1.2 Stool
structure	1.3 Bed
	1.4 Chair

1				
	Assessment required evidences that the candidate:			
1. Critical aspects of	1.1 prepared the materials for the assembly of simple furniture structure			
competency	1.2 assembled simple furniture structure			
	1.3 cleaned and maintained tools and equipment			
	2.1 Techniques of assembly, fixing and finishing of simple			
2. Underpinning	furniture structure			
knowledge	2.2 Workflow in relation to the furniture items being made.			
	3.1 Selecting tools, equipment and materials.			
2 Undominning	3.2 Assembling of the furniture components.			
3. Underpinning skills	3.3 Finishing furniture components.			
581115	3.4 Appling hardware and accessories.			
	3.5 Checking product quality.			
	4.1 Commitment to occupational safety and health.			
	4.2 Promptness in carrying out activities.			
	4.3 Sincere and honest to duties.			
4. Required attitudes	4.4 Eagerness to learn.			
n nequirea acticades	4.5 Tidiness and timeliness.			
	4.6 Environmental concerns.			
	4.7 Respect for rights of peers and seniors at workplace.			
	4.8 Communication with peers and seniors at workplace.			
	The following resources must be provided:			
5. Resource	5.1 workplace (actual or simulated)			
implication	5.2 tools, equipment and physical facilities appropriate to perform activities			
	5.3 materials, consumables to perform activities.			
	Methods of assessment may include but not limited to:			
	6.1 written test			
6. Methods of	6.2 demonstration			
assessment	6.3 oral questioning			
	6.4 portfolio.			

	7.1	Competency assessment must be done in NSDA accredited
7. Contexts of		assessment centre
assessment	7.2	Assessment should be done by a NSDA certified/nominated
		assessor

Development of Competency Standard

The Competency Standards for National Skills Certificate in Carpentry, Level-1, 2 and 3 is developed by NSDA on 20-24 November 2022.

List of Members

Sl No	Name and Address	Position in the committee
1.	Md Joshim Uddin Gazi, Carpenter, US Embassy, Dhaka	Member
2.	Nasir Uddin Ahamed, Supdt. Instructor, DAERS, Carpentry Shop, BUET, Dhaka	Member
3.	Md. Obaidul Haque, Ex GM (Production), OTOBI Ltd. Dhaka	Member
4.	Md. Mohiuddin, Trainer Carpentry, UCEP TVET Insttute, Dhaka	Member
5.	Md. Zillur Rahman Khan, Instructor (Civil), Dhaka Polytechnic Institute	Member
6.	Md Abdur Razzaque, Specialist-1, NSDA, Dhaka	Member

Validation of Competency Standard

The Competency Standards for National Skills Certificate in Carpentry, Level- 1, 2 and 3 is validated by NSDA 28-29 December 2022.

List of Members of SCVC

Sl No	Name and Address	Position in the committee	Signature
1.	A Karim Majumder, Managing Director, Nadia Furniture Ltd. Singair, Manikganj, Mobile: 01819-241830, Email: <u>karim@nadiafurniture.com</u>	Chairperson	
2.	Md Joshim Uddin Gazi, Carpenter, US Embassy, Dhaka, Mobile: 017126-59663, Email: joshimuddingazi@gmail.com	Member	
3.	Md. Obaidul Haque, Ex GM (Production), OTOBI Ltd. Dhaka, Mobile: 018181-20736, Email: obaidulhaque1967@gmail.com	Member	
4.	Md. Zillur Rahman Khan, Instructor (Civil), Dhaka Polytechnic Institute, Mobile: 01711- 158084, Email: zillurznf99@gmail.com	Member	
5.	Md Anowarul Haque, Head of Institute, Akhtar Furniture Academy, Singair, Manikganj, Mobile: 01799-949901, Email: afa.anowarul@gmail.com	Member	
6.	Kazi Md Monirul Islam, DGM (Production), Nadia Furniture, Singair, Manikganj, Mobile: 01871-006809, Email: kazimonir.nfl@gmail.com	Member	
7.	Md Abdur Razzaque, Specialist-1, NSDA, Dhaka, Mobile: 01742-734313, Email: razzaque159@gmail.com	Member	

Workshop Minutes

Government of the People's Republic of Bangladesh Prime Minister's Office National Skills Development Authority

Level: 10-11, Biniyog Bhaban, E-6 / B, Agargaon, Sher-E-Bangla Nagar Dhaka-1207, Bangladesh. Email: <u>ec@nsda.gov.bd</u> Website: <u>www.nsda.gov.bd</u>

Minutes of the Competency Standard Validation Workshop on "Carpentry, Level-1" Occupation.

Chairman	:, Chairman, FSISC,
Date	: 28-29 December 2022
Time	: 9:30 am - 4:00 pm
Place	: ISC Conference Room, NSDA, Biniyog Bhaban, Agargaon, Dhaka-1207

The Chairman inaugurated the workshop by welcoming the expert participants attended in the workshop. He urges the participants to share their expert opinion to make the standard effective, job market responsive and updated one. During the day-long workshop, the competency standard of "Carpentry, Level-1" occupation was reviewed, modified and finalized in detail.

The following changes and modification were made to validate and finalize the competency standard.

Serial No.	Content of validation	Whether it was appropriate		What actions have been taken if not appropriate?
		Yes	No.	appropriac.
1.	Name and level of occupation	Yes		
2.	Nominal Hour	Yes		360 hours
3.	Unit of Competency		No.	• Out 7 UoC, name of 2 UoC have changed and nominal also changed
4.	Element		No.	 Total 09 elements are edited 03 element is added or deleted
5.	Performance Criteria		No.	• Total 22 performance criteria edited and finetuned as per elements
6.	Variables		No.	• 32 new variables are added
7.	Critical Aspect of Competence		No.	• Necessary changes have been made in the critical aspect of competency according to above changes.
8.	Underpinning knowledge		No.	• Necessary changes have been made in the underpinning knowledge according to above changes.
9.	Underpinning Skills		No.	• Necessary addition, changes and fine tuning have been made.
10.	Attitude	Yes		
11.	Resources	Yes		
12.	Assessment methods	Yes		

13.	Others	• The nominal hours of the units of competencies have been rescheduled for content consideration.
		• Overall, the occupation has been included in Level-3 according to NSQF (BNQF 1-6).

Through the above activities, the Competency Standard has been finalized and validated as "Carpentry, Level-1.

Aranho

Chairman Committee on Standard and Curriculum Validation, Chairman – FSISC