



Bangladesh Technical Education Board

National Competency Standards for Finishing Carpentry

Qualification Title: **National Skills Certificate-I Finishing Carpentry (Construction Sector)**

Qualification Code: **CONFC.....**

July 2016



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The **National Competency Standard for Finishing Carpentry (NSC I)** is a referral document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the base document for providing trainings consistent with existing quality assurance systems.

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Approval Sheet

The National Competency Standards for National Skills Certificate-I Finishing Carpentry (Construction Sector) Qualification is a document developed by the Technical sub Committee of Construction Industry Skills Council (CISC).

It was approved by the Bangladesh Technical Education Board (BTEB) upon the endorsement of the Industry Skills Council of Construction sector at a meeting held on 14 June 2016 at the office of the Industry Skills Council.

The Standard was also approved by Standard and Curriculum Development Committee (SCDC) on 24 July 2016.

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|--|-------------|
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Approved by: Chairman, Bangladesh Technical Education Board

Preface

The TVET system has a large role to play in economic growth and social development as workforce provider to the labor market and as provider of skills to those who are looking for employment. In the case of Bangladesh, the TVET sector needs major reforms to ensure that issues of quality and capacity, relevance, and access are properly addressed.

Construction Industry Skills Council (CISC) in collaboration with Skills and Employment Programme branded as Sudokkho and Bangladesh Technical Education Board (BTEB) developed competency standards following National Skills Development Policy 2011 for the occupations which are in demand for the construction sector.

The development of competency standards is regarded as the heart of a competency-based training regime. Each standard defines sets of knowledge, skills and attitudes (KSAs) that a Bangladeshi trainee should be able to demonstrate at a recognized level of competence. It provides a common framework of outcomes between the labor and education sectors, as well as among workers, trainers and trainees.

A series of workshops – development, review and finalization - were conducted to ensure a workable National Competency Standards for the occupation. In the process of development, Sudokkho jointly with CISC and BTEB facilitated the competency standards development workshops involving industry experts recommended by the CISC. Standards development Technical Sub-Committee formed by CSIC took lead to review, modify, and edit standards so that identified competencies and standards match with the skills level of workers working in the industry. Subsequently, developed competency standards was validated and endorsed by Curriculum Development and Training Support Standing Committee which is a wing of CISC for developing curriculums and standards for construction sector.

It is hoped that this document reflects the real needs of the industry thereby providing a concrete basis for the curriculum development and assessment. In such a way, the development of relevant and competent workforce is not farfetched.

Engr. Shafiqul Alam Bhuiyan
Chairperson
Construction Industry Skills Council

Chairman
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Acronyms

| | |
|-----------|---|
| MoE | Ministry of Education |
| DG | Director General |
| DTE | Directorate of Technical Education |
| SDP | Skills Development Project |
| PD | Project Director |
| PIU | Project Implementation Unit |
| GOB | Government of Bangladesh |
| ADB | Asian Development Bank |
| SC | Swiss contact |
| ANTA | Australian National Training Authority |
| APEC | Asia Pacific Economic Cooperation |
| ASEAN | Association of Southeast Asian Nations |
| BMET | Bureau of Manpower Employment and Training |
| NTVQ | National Technical Vocational Qualification |
| NTVQF | National Technical Vocational Qualification Framework |
| BTEB | Bangladesh Technical Education Board |
| CBT | Competency Based Training |
| CS | Competency Standard |
| HSC (Voc) | Higher Secondary Certificate (Vocational) |
| KSA | Knowledge, Skills, Attitude |
| MoLE | Ministry of Labor and Employment |
| NTVQF | National Technical Vocational Qualification Framework |
| NTVQ | National Technical Vocational Qualification |
| OHS | Occupational Health and Safety |
| PSC | Project Steering Committee |
| RMG | Ready Made Garments |
| RPL | Recognition of Prior Learning |
| SSC (Voc) | Secondary School Certificate (Vocational) |

Introduction:

These Competency Standards were developed by the Technical Sub Committee (TSC) that was established by **Construction Industry Skills Council**. The rules of Skill Development Policy are maintained to develop the standards. The competency standards are the foundation on which new competency based curriculum will be developed that responds better to the needs of industry for skilled workers. The members of the TSC are primarily from industry and training institutes. The members were trained and guided by an International Expert and National Experts to develop the standard. Persons who will successfully complete the new TVET programs based on these competency standards will receive a qualification in the new National Technical and Vocational Qualification Framework (NTVQF).

Competency Standards are nationally agreed and industry-determined competencies required for effective work performance. These are presented in a consistent format following sequence such as:

- Unit Title
- Unit Code
- Nominal Hours
- Unit descriptor
- Elements and performance criteria
- Range of Variables
- Evidence Guide

The Competency Standards are the core element for training, assessment and certification of skilled workers. Candidates who are successful in the assessment will receive a qualification in the National Technical and Vocational Qualification Framework (NTVQF).

This document contains Course structures for each qualification. This structure contains the Unit code, unit title and nominal hours for the competencies.

The Competency Standard for Finishing Carpentry was developed by the Technical Sub Committee (TSC) that was established under the Construction Industry Skills Council (CISC). The technical experts are primarily from industry nominated by Industry Skills Council with representatives from the Bangladesh Technical Education Board (BTEB) involved in this occupation. The Standards and Curriculum Development Committee (SCDC) of BTEB reviewed this document.

The development of Competency Standards was assisted by Sudokkho (Former Skills and Employment Programmes in Bangladesh; SEP-B) funded by DFID and SDC. This project is being implemented by the Palladium Group in partnership with Swisscontact and the British Council. The executing agency for the project is Directorate of Technical Education (DTE) of the Government of Bangladesh.

Endorsed by

Approved by:

Construction Industry Skills Council
Date:

Bangladesh Technical Education Board (BTEB)
Date:

National Competency Standards for Finishing Carpentry In the CONSTRUCTION Sector

| Sl. No. | Unit Code and Title | | UoC Level | Nominal Duration (Hours) |
|---|---------------------|--|-----------|--------------------------|
| Generic (5UoCs required) | | | | |
| 1. | GN1001A1 | Use Basic Mathematical Concepts. | 1 | 40 |
| 2. | GN1002A1 | Apply OSH Practices in the Workplace. | 1 | 30 |
| 3. | GN2003A1 | Use English in the Workplace | 2 | 70 |
| 4. | GN2004A1 | Operate in a self-directed team | 2 | 30 |
| 5. | GN2005A1 | Present and Apply Workplace Information. | 2 | 30 |
| Sector Specific (4UoCs required) | | | | |
| 6. | CON100112A | Work in the Construction (Finishing Carpentry) Sector | 1 | 24 |
| 7. | CON100212A | Interpret Drawings and Specifications in Construction (Finishing Carpentry) Sector | 1 | 30 |
| 8. | CON100312A | Perform Measurement and Calculations in Construction (Finishing Carpentry) Sector | 1 | 38 |
| 9. | CON100412A | Use Hand Tools and Power Tools for the Construction (Finishing Carpentry) Sector | 1 | 36 |
| Occupation Specific – Compulsory (12UoCs required) | | | | |
| 10. | CONFC100112A | Make Joints (Basic) | 1 | 50 |
| 11. | CONFC100212A | Make Door Components | 1 | 35 |
| 12. | CONFC100312A | Make Window Components | 1 | 35 |
| 13. | CONFC100412A | Make Cabinet Components | 1 | 42 |
| 14. | CONFC200512A | Make Joints (Advanced) | 2 | |
| 15. | CONFC200612A | Assemble and Install Door/Window | 2 | |
| 16. | CONFC200712A | Assemble and Install Partition Wall | 2 | |
| 17. | CONFC200812A | Assemble and Install Cabinet Components | 2 | |
| 18. | CONFC300912A | Make Railing of Stair | 3 | |
| 19. | CONFC301012A | Install False Ceiling | 3 | |
| 20. | CONFC301112A | Produce Angled and Carved Finishing Work | 3 | |
| 21. | CONFC301212A | Estimate Cost and Job | 3 | |
| Total Nominal Learning Hours | | | | |

Course Structure
for
National Skills Certificate in Finishing Carpentry(NTVQF Level-1)
In the CONSTRUCTION Sector

| Sl. No. | Unit Code and Title | | UoC Level | Nominal Duration (Hours) |
|--|---------------------|--|-----------|--------------------------|
| Generic (2UoCs required) | | | | 70 |
| 1. | GN1001A1 | Use Basic Mathematical Concepts | 1 | 40 |
| 2. | GN1002A1 | Apply OSH Practices in the Workplace | 1 | 30 |
| Sector Specific (4 UoCs required) | | | | 128 |
| 3. | CON100112A | Work in the Construction (Finishing Carpentry) Sector | 1 | 24 |
| 4. | CON100212A | Interpret Drawings and Specifications in Construction (Finishing Carpentry) Sector | 1 | 30 |
| 5. | CON100312A | Perform Measurement and Calculations in Construction (Finishing Carpentry) Sector | 1 | 38 |
| 6. | CON100412A | Use Hand Tools and Power Tools for the Construction (Finishing Carpentry) Sector | 1 | 36 |
| Occupation Specific – Compulsory (4UoCs required) | | | | 162 |
| 7. | CONFC100112A | Make Joints (Basic) | 1 | 50 |
| 8. | CONFC100212A | Make Door Components | 1 | 35 |
| 9. | CONFC100312A | Make Window Components | 1 | 35 |
| 10. | CONFC100412A | Make Cabinet Components | 1 | 42 |
| Total Nominal Learning Hours | | | | 360 |

GENERIC COMPETENCIES

**National Technical and Vocational Qualification Framework for Bangladesh
Unit of Competency**

| | |
|--|--|
| Unit Title | Use Basic Mathematical Concepts |
| Unit Code | GN1001A1 |
| Nominal Hours | 40 hours |
| Unit Descriptor | This requires the knowledge, skill and attitude to apply mathematical methods such as addition, subtraction, multiplication, and division, among others, in the routine tasks of an organization. |
| Elements of Competency | Performance Criteria <i>Bold and Italicized</i> terms are elaborated in the Range of Variable Training Components |
| 1. Identify calculation requirements in the workplace | 1.1 Calculation requirements are identified from <i>workplace information</i> |
| 2. Select appropriate mathematical methods for the calculation | 2.1 Appropriate <i>Mathematical methods</i> are selected to carry out the calculation. 2.2 <i>System and units of measurement</i> to be followed are determined. |
| 3. Use basic mathematical concepts to calculate workplace calculation. | 3.1 Calculations are completed using appropriate methods such as addition, subtraction, multiplication and division. 3.2 Systems and units of measurement for the task are applied to workplace calculation. |
| Range of Variables | |
| Variable | Range (May include but not limited to) |
| 1. Equipment and tools | 1.1 Calculator 1.2 Computer with office software |
| 2. Mathematical methods | 2.1 Addition 2.2 Subtraction 2.3 Division 2.4 Multiplication 2.5 Ratio on any types of real values (such as whole numbers, fractional numbers, percentages, numbers with exponents) |
| 3. System and units of measurement | 3.1 Measurement 3.2 Volume 3.3 Weight 3.4 Mass 3.5 Density 3.6 Percentage 3.7 Length / Breadth / Thickness 3.8 Capacity 3.9 Time 3.10 Temperature 3.11 Budget, Pay/ Wages, Leave entitlements 3.12 Material usage 3.13 Speed 3.14 Costing |
| 4. Workplace information | 4.1 Project documents 4.2 Graphs 4.3 Charts |

| | |
|--|--|
| | <ul style="list-style-type: none"> 4.4 Tables 4.5 Spread sheets 4.6 Item price quotations 4.7 Equipment manuals |
| 5. Budget | <ul style="list-style-type: none"> 5.1 Budget of consumables 5.2 Calculation for software components 5.3 Hardware equipment 5.4 Maintenance budget of a set-up 5.5 Cost estimation |
| Evidence Guide | |
| The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency. | |
| 1. Critical aspects of competency | 1.1 Applied mathematical methods such as addition, subtraction, division and multiplication to workplace calculations. |
| 2. Underpinning knowledge | <ul style="list-style-type: none"> 2.1 Calculation requirements in the workplace 2.2 Select appropriate mathematical methods 2.3 Equipment and tools 2.4 Mathematical language, symbols and terminology 2.5 Application of units 2.6 Workplace information 2.7 Using arithmetic processes to find solutions to simple mathematical problems |
| 3. Underpinning skill | <ul style="list-style-type: none"> 3.1 Ability to identify calculation requirements from workplace information 3.2 Ability to select appropriate mathematical methods 3.3 Ability to use appropriate technology 3.4 Ability to use mathematical language, symbols and terminology 3.5 Understanding of appropriate units of measurement (such as kg, meter) and application may include measurement, volume, weight, density, percentage etc. 3.6 Ability to include workplace information (project documents, graphs, charts, tables, spread sheets, item price quotations, equipment manuals) 3.7 Ability to use arithmetic processes to find solutions to simple mathematical problems 3.8 Ability to apply in the workplace. |
| 4. Required attitude | <ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 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 in workplace 4.8 Communication with peers, sub-ordinates and seniors in workplace |
| 5. Resource implication | <p>The following resources must be provided:</p> <ul style="list-style-type: none"> 5.1 Tools, equipment and physical facilities appropriate to perform activities. 5.2 Materials, consumables to perform activities. |
| 6. Methods of assessment | <ul style="list-style-type: none"> 6.1 Demonstration with oral questioning 6.2 Direct observation |

| | |
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| | 6.3 Written test 6.4 Portfolio 6.5 Log book |
| 7. Context of assessment | 7.1 Competencies may be assessed in the work place or a simulated work place |
| <p>Accreditation Requirements</p> <p>Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), 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 national qualification.</p> <p>Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p> | |

**National Technical and Vocational Qualification Framework for Bangladesh
Unit of Competency**

| | |
|---|---|
| Unit Title | Apply OSH practices in the workplace |
| Unit Code | GN1002A1 |
| Nominal Hours | 30 hours |
| Unit Descriptor | This unit covers the knowledge, skills and attitude required to identify and apply OSH in the workplace. This also covers identifying, controlling and reporting OSH hazards, conducting of work in a safe manner, following emergency response procedure and maintaining and improving health and safety in the workplace. |
| Elements of Competency | Performance Criteria <i>Bold and Italicized</i> terms are elaborated in the Range of Variable Training Components |
| 1. Identify, control and report OSH hazards | 1.1 Immediate work area is routinely checked for OSH hazards prior to commencing and during work. 1.2 <i>Hazards</i> and unacceptable performance are identified and corrective action is taken within the level of responsibility. 1.3 OSH hazards and incidents are reported to appropriate personnel according to workplace procedures. 1.4 Safety Signs and symbols are identified and followed |
| 2. Conduct work safely | 2.1 Apply OSH practices in the workplace. 2.2 Appropriate <i>personal protective equipment (PPE)</i> is selected and worn. |
| 3. Follow emergency response procedures | 3.1 Emergency situations are identified and reported according to workplace reporting requirements. 3.2 Emergency procedures are followed as appropriate to the nature of the emergency and according to workplace procedures. 3.3 <i>Workplace procedures</i> for dealing with accidents, fires and emergencies are followed whenever necessary within scope of responsibilities. |
| 4. Maintain and improve health and safety in the work place | 4.1 Risks are identified and appropriate control measures are implemented in the work area. 4.2 Recommendations arising from risk assessments are implemented within level of responsibility. 4.3 Opportunities for improving OSH performance are identified and raised with relevant personnel. 4.4 Safety records according to <i>company policies</i> are maintained. |
| Range of Variables | |
| Variable | Range (May include but not limited to) |
| 1. Company policies | 1.1 Job-related Standard Operating Procedures (SOPs) and OSH-specific procedures. Examples of OSH procedures include consultation and participation, emergency response, response to specific hazards, incident investigation, risk assessment, reporting arrangements and issue resolution procedures |
| 2. Workplace procedures | 2.1 OSH system and related documentation including policies and procedures 2.2 Standard Operating Procedures (SOPs) |

| | |
|--|---|
| | <p>2.3 information on hazards and the work process, hazard alerts, safety signs and symbols</p> <p>2.4 Labels</p> <p>2.5 Material Safety Data Sheets (MSDSs) and manufacturers' advice.</p> |
| 3. Hazards | <p>3.1 OSH incidents include near misses, injuries, illnesses and property damage, noise, handling hazardous substances, other hazards</p> <p>3.2 Working with and near moving equipment/load shifting equipment</p> <p>3.3 Broken or damaged equipment or materials</p> |
| 4. Personal Protective equipment (PPE) | <p>4.1 Goggles</p> <p>4.2 Ear muffs</p> <p>4.3 Ear plugs</p> <p>4.4 Gloves</p> <p>4.5 Clothing</p> <p>4.6 Apron</p> <p>4.7 Helmet</p> <p>4.8 Boots</p> |
| <p>Evidence Guide</p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.</p> | |
| 1. Critical aspects of competency | <p>1.1 Identified, controlled and reported OSH hazards</p> <p>1.2 Followed work safety.</p> <p>1.3 Followed emergency response procedures.</p> <p>1.4 Maintained and improved health and safety in the workplace.</p> |
| 2. Underpinning knowledge | <p>2.1 Personal protective equipment - Hand gloves, safety shoes, safety goggles, masks, apron,</p> <p>2.2 Identification of tools and equipment</p> <p>2.3 Hazardous events</p> <p>2.4 Tools, equipment, machinery and relevant accessories.</p> <p>2.5 Communication</p> <p>2.6 Job roles, responsibilities and compliance</p> <p>2.7 Workplace laws</p> |
| 3. Underpinning skill | <p>3.1 Ability to use the appropriate PPE.</p> <p>3.2 Ability to identify tools and equipment.</p> <p>3.3 Ability to quick response and to take safety precautions for different hazardous situations.</p> <p>3.4 Ability to operate and use tools, equipment, machinery and accessories properly as per SOP (Company standards).</p> <p>3.5 Ability to communicate with peers and supervisors.</p> <p>3.6 Ability to apply in the workplace.</p> |
| 4. Required attitude | <p>4.1 Commitment to occupational health and safety.</p> <p>4.2 Promptness in carrying out activities.</p> <p>4.3 Sincere and honest to duties.</p> <p>4.4 Environmental concerns.</p> <p>4.5 Eagerness to learn.</p> <p>4.6 Tidiness and timeliness.</p> <p>4.7 Respect for rights of peers and seniors in workplace.</p> <p>4.8 Communication with peers, sub-ordinates and seniors in workplace.</p> |

| | |
|--|---|
| 5. Resource implication | The following resources must be provided: 5.1 Tools, equipment and physical facilities appropriate to perform activities. 5.2 Materials, consumables to perform activities. |
| 6. Methods of assessment | 6.1 Demonstration with oral questioning 6.2 Direct observation 6.3 Written test 6.4 Portfolio 6.5 Log book |
| 7. Context of assessment | 7.1 Competencies may be assessed in the work place or a simulated work place |
| <p>Accreditation Requirements Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), 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 national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p> | |

SECTOR SPECIFIC COMPETENCIES

National Technical and Vocational Qualifications Framework for Bangladesh
Unit of Competency

| | |
|--|---|
| Unit Title | Work in the Construction (Finishing Carpentry) Sector |
| Unit Code | CON100112A |
| Nominal Hours | 24 |
| Unit Descriptor | This unit covers the skills, knowledge and attitude in working in the construction (Finishing Carpentry) sector. It includes the following steps: describe the organizational structure within the construction (Finishing Carpentry) sector; identifying processes and procedures; identify tools, equipment and materials; identify workplace practices; organize own workload; and practice OHS. |
| Elements of Competency | Performance Criteria <i>Bold & italicized</i> words are detailed in the Range of Variables |
| 1. Describe the organizational structure within the sector (Finishing Carpentry) | <p>1.1 Scope, nature and <i>major fields</i> of the construction (Finishing Carpentry) sector are determined.</p> <p>1.2 Profile of the construction (Finishing Carpentry) sector in relation to Bangladesh <i>employment conditions</i> is determined.</p> <p>1.3 Trends and technologies relevant to the sector are explained.</p> <p>1.4 Relevant policies and guidelines are identified and interpreted.</p> <p>1.5 <i>Instructions</i> as to procedures in achieving quality are obtained, understood, and clarified.</p> |
| 2. Identify processes and procedures | <p>2.1 Relevant <i>OHS</i> practices are identified, interpreted and implemented.</p> <p>2.2 Construction (Finishing Carpentry) processes are identified, described and explained based on specifications.</p> <p>2.3 Work activities are correctly identified based on code/ Manuals of Instruction.</p> <p>2.4 Adjustments are interpreted.</p> |
| 3. Identify tools, equipment and materials | <p>3.1 Appropriate <i>manuals</i> are accessed to ensure up-to-date specifications of tools, materials and equipment.</p> <p>3.2 Construction <i>tools, materials and equipment</i> are identified.</p> <p>3.3 Substitutes are identified in case of non-availability of tools, equipment and materials based on job requirements.</p> |
| 4. Identify workplace requirements | <p>4.1 <i>Workplace requirements</i> are identified and clarified.</p> <p>4.2 Roles and responsibilities of all personnel are described.</p> <p>4.3 Workplace's practices are identified.</p> <p>4.4 <i>Problem-solving strategies</i> are used to address bottlenecks, inconsistencies and other concerns.</p> |
| 5. Organize own workload | <p>5.1 Own work activities are planned and progress of work is communicated to relevant staff.</p> <p>5.2 Work activities are completed based on workplace standards.</p> <p>5.3 Difficulties and bottlenecks are identified, and solutions are put forward.</p> |

| | |
|--|--|
| | 5.4 Own work is monitored against workplace standards and areas for improvement identified and acted upon. |
| Range of Variables | |
| Variables | Range (May Include but not limited to): |
| 1. Major Fields | 1.1 Construction Site Support (Dogging, Rigging, etc.) 1.2 Carpentry and Form Works 1.3 Masonry, Brick/Block Laying and Concreting 1.4 Surface Finishing, Tiling and Painting 1.5 Roofing 1.6 Plumbing 1.7 Residential Electrical Wiring and Cabling |
| 2. Employment conditions | 2.1 Code of Practice 2.2 Salary/Wage System 2.3 Labor Practices 2.4 Anti-Discrimination Policy 2.5 Gender Issues 2.6 Collective Bargaining and Other Practices 2.7 Awards 2.8 Procedures for Handling Disputes 2.9 Innovations in the Sector |
| 3. Instructions | 3.1 Specifications and requirements 3.2 Standard operating procedures 3.3 Manuals of Instruction 3.4 Operations Manual 3.5 Environmental Guidelines 3.6 Gender and Develop Guidelines |
| 4. Manuals | 4.1 Manual of Instructions 4.2 Manual of Specifications 4.3 Repair Manual 4.4 Quality Manual 4.5 Maintenance Procedure and Troubleshooting |
| 5. Workplace requirements | 5.1 Goals and objectives 5.2 Strategic and Operational Plans 5.3 Systems and Processes 5.4 Monitoring and Evaluation 5.5 Reports and Documentation |
| 6. Tools, equipment and materials | Refers to all tools, equipment and materials appropriate to any of the constructions (Finishing Carpentry) fields |
| 7. Problem-solving strategies | 7.1 Asking questions 7.2 Feedback and Feed forward system 7.3 Reference to Standard Operating Procedures 7.4 Accessing Information 7.5 Reviews 7.6 Brainstorming |
| 8. OHS | 8.1 Reporting hazards, risks and emergencies 8.2 Arrangement of workplaces 8.3 Standard Operating Procedure 8.4 Workplace environment and safety 8.5 Safe storage of tools and equipment 8.6 Use of PPE |
| Evidence Guide: | |
| The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency. | |

| | |
|---|---|
| 1. Critical aspects of competency | Assessment requires evidence that the candidate: 1.1 Determine job roles and responsibilities in the construction industry 1.2 Identify and observe OSH in the construction industry. 1.3 Determine Individual tasks and agreed on according to workplace environment. |
| 2. Underpinning knowledge | 2.1 Scope and Major Divisions of the Construction (Finishing Carpentry) Sector 2.2 Relevant Policies and Guidelines in the Construction (Finishing Carpentry) Sector 2.3 Manuals used in the Construction (Finishing Carpentry) Sector 2.4 Relevant Terminologies and Acronyms 2.5 Types and Uses of Construction (Finishing Carpentry) Tools and Materials 2.6 Workplace Practices 2.7 Occupational Health and Safety Practices 2.8 Recording and Reporting practices |
| 3. Underpinning Skills | 3.1 Describing organization structure 3.2 Identifying construction (Finishing Carpentry) processes and procedures 3.3 Identifying tools, equipment and materials 3.4 Identifying workplace practices 3.5 Organizing own workload 3.6 Practicing OHS |
| 4. Underpinning Attitude | 4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace |
| 5. Resource Implications | The following resources should be provided 5.1 Adequate workplace 5.2 Availability of quality tools and materials required 5.3 Information on SOP, OHS, and other policies and guidelines 5.4 Relevant specifications and work instructions |
| 6. Method of Assessment | Competency must be assessed by 6.1 Direct observation of processes and procedures 6.2 Oral Interview 6.3 Written Test 6.4 Feedback or certificate from supervisors, colleagues or appropriate persons |
| 7. Context of Assessment | For certification, competency must be assessed in the actual workplace individually by direct observation. |
| Accreditation Requirements Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), 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 national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB. | |

National Technical and Vocational Qualifications Framework for Bangladesh
Unit of Competency

| | |
|--|--|
| Unit Title | Interpret Drawings and Specifications in Construction (Finishing Carpentry)Sector |
| Unit Code | CON100212A |
| Nominal Hours | 30 hours |
| Unit Descriptor | This unit covers the knowledge, skill and attitude required in interpreting drawings and specifications in construction (Finishing Carpentry) documents. It includes the following steps: identify information, identify drawings and specifications, interpret drawings and specifications, and apply occupational health and safety procedures. |
| Elements of Competency | Performance Criteria <i>Bold & italicized</i> words are detailed in the Range of Variables |
| 1. Identify information from manuals | 1.1 Appropriate <i>manuals</i> are identified and accessed. 1.2 Version and date of manual are checked to ensure up-to-date specifications of tools, equipment, materials and procedures. |
| 2. Identify drawings and specifications | 2.1 Relevant <i>drawings</i> and <i>specifications</i> are identified/selected. 2.2 <i>Terms and abbreviations</i> are identified. 2.3 <i>Signs and symbols</i> are interpreted. |
| 3. Interpret drawings and specifications | 3.1 Drawings and specifications are interpreted. 3.2 Schedules, dimensions and specifications contained in the drawings are interpreted according to job requirement 3.3 Clearance/Tolerances are checked for compliance with work place standard. |
| 4. Store manuals | 4.1 Manuals and documents are collected and packed. 4.2 Manuals and documents are stored as per instruction to prevent damage, ready access and updating of information when required. |
| Range of Variables | |
| Variables | Range (Include but are not limited to): |
| 1. Manuals | 1.1 Manufacturer's Specification Manual 1.2 Repair Manual 1.3 Maintenance Procedure Manual 1.4 Periodic Maintenance Manual 1.5 Quality Manual 1.6 Manual of Instruction |
| 2. Drawings | 2.1 Technical Drawings 2.2 Sketch |
| 3. Specifications | 3.1 Product specifications 3.2 Performance specifications 3.3 Method specifications |
| 4. Instructions | 4.1 Orders 4.2 Special Orders |
| 5. Terms and abbreviations | Refers to all terms and abbreviations associated with the construction (Finishing Carpentry) sector |

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| 6. Signs and symbols | Include all signs and symbols associated with the construction (Finishing Carpentry) sector |
| Evidence Guide: | |
| The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency. | |
| 1. Critical aspects of competency | Assessment requires evidence that the candidate: <ul style="list-style-type: none"> 1.1 Select and interpret drawings and specifications in construction (Finishing Carpentry) sector 1.2 Use and follow instruction according to job requirement |
| 2. Underpinning knowledge | <ul style="list-style-type: none"> 2.1 Types of Construction (Finishing Carpentry) Manuals 2.2 Identification of Signs and Symbols 2.3 Identification of Units of Measurement 2.4 Identification of Units of Conversion 2.5 Drawings and Specifications 2.6 Terms and Abbreviations Used |
| 3. Underpinning skills | <ul style="list-style-type: none"> 3.1 Identifying appropriate manuals 3.2 Identifying drawings and specifications 3.3 Interpreting drawings and specifications 3.4 Storing manuals |
| 4. Underpinning Attitude | <ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace |
| 5. Resource implications | The following resources must be provided <ul style="list-style-type: none"> 5.1 Tools, equipment and physical facilities appropriate to perform activities. 5.2 Materials, consumables needed to perform activities. 5.3 Availability of all manuals. 5.4 Accessibility of storage area |
| 6. Methods of assessment | Competency must be assessed by <ul style="list-style-type: none"> 6.1 Direct observation 6.2 Demonstration 6.3 Written Test 6.4 Oral questioning 6.5 Portfolio |
| 7. Context of assessment | For certification, competency must be assessed in the actual workplace individually by direct observation. |
| Accreditation Requirements | |
| <p>Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), 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 national qualification.</p> <p>Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p> | |

National Technical and Vocational Qualifications Framework for Bangladesh
Unit of Competency

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| Unit Title | Perform Measurement and Calculations in (Finishing Carpentry) Sector |
| Unit Code | CON100312A |
| Nominal Hours | 48 hours |
| Unit Descriptor | This unit covers the knowledge skills and attitude required in performing measurements and calculations relating to activities in the construction (Finishing Carpentry) sector. It includes the following steps: select measuring devices, obtain measurements, perform calculations, and clean-up. |
| Elements of Competency | Performance Criteria <i>Bold & italicized</i> words are detailed in the Range of Variables |
| 1. Select measuring devices | 1.1 Work instructions are confirmed and applied. 1.2 Materials to be measured are identified and classified. 1.3 Appropriate measuring devices are selected based on materials to be measured or job requirements. 1.4 Specifications are obtained from relevant documents . 1.5 Tolerance and clearance limits are identified and adjusted according to job requirements. 1.6 PPE (Personal protective equipment) and other safety devices are selected and used as per safety regulations. |
| 2. Obtain measurements | 2.1 Accurate measurements are obtained using measuring devices and in accordance with job requirements. 2.2 Systems of measurements are identified and converted. 2.3 Results are confirmed and recorded. |
| 3. Perform simple calculations | 3.1 Simple calculations involving four basic operations are carried out. 3.2 Other operations are used to complete tasks. 3.3 Appropriate formulas for calculating quantities of materials are selected. 3.4 Calculations are performed and verified as per specification. 3.5 Material quantities are calculated according to job requirement. 3.6 Results are interpreted and communicated to authority. |
| 4. Clean and store measuring device | 4.1 Cleaning tools and equipment are selected and collected. 4.2 Cleaning tools and equipment are prepared for cleaning. 4.3 Cleaning is completed. 4.4 Used tools and equipment and stored as per company standard. |
| Range of Variables | |
| Variables | Range (Include but are not limited to): |
| 1. Materials | Refers to all construction materials included but not limited to the following: 1.1 Construction Site Support (Dogging, Rigging, etc.) |

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| | <ul style="list-style-type: none"> 1.2 Carpentry and Form Works 1.3 Masonry, Brick/Block Laying and Concreting 1.4 Surface Finishing, Tiling and Painting 1.5 Roofing 1.6 Plumbing 1.7 Residential Electrical Wiring and Cabling |
| 2. Measuring devices | <ul style="list-style-type: none"> 2.1 Set squares 2.2 Try Square 2.3 Micrometers 2.4 S. W. G. 2.5 Steel rule 2.6 Slide calipers 2.7 Steel tape measure 2.8 Triangle 2.9 Steel rule 2.10 Carpenter's square 2.11 Calculator 2.12 Verniers 2.13 Feeler gauges 2.14 Thermometers 2.15 Protractors |
| 3. PPE | <ul style="list-style-type: none"> 3.1 Dust mask 3.2 Goggles 3.3 Gloves 3.4 Safety shoes 3.5 Aprons 3.6 Overalls 3.7 Helmet |
| 4. Documents | <ul style="list-style-type: none"> 4.1 Technical Manuals 4.2 Specifications 4.3 Sketches 4.4 Drawings |
| 5. Measurements | <ul style="list-style-type: none"> 5.1 Length 5.2 Width 5.3 Depth 5.4 Height 5.5 Weight 5.6 Number 5.7 Mass 5.8 Diameter 5.9 Tolerance 5.10 Roundness 5.11 Angles 5.12 Flatness angle 5.13 Clearances 5.14 Plumpness |
| 6. Four Generic Operations | <ul style="list-style-type: none"> 6.1 Addition 6.2 Subtraction 6.3 Multiplication 6.4 Division |
| 7. Other operations | <ul style="list-style-type: none"> 7.1 Fractions 7.2 Percentages 7.3 Mixed numbers 7.4 Conversions |

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| | <ul style="list-style-type: none"> 7.5 Scales 7.6 Trigonometric functions 7.7 Algebraic computations |
| 8. Calculations | <ul style="list-style-type: none"> 8.1 Area 8.2 Volume 8.3 Circumference 8.4 Clearance 8.5 Diameter 8.6 Scales 8.7 Ratio |
| Evidence Guide: | |
| The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency. | |
| 1. Critical aspects of competency | <p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Select measuring device and performing measurement of measurement and calculation, 1.2 Perform simple calculation 1.3 Record of measurement and calculation 1.4 Demonstrated knowledge in performing measurement and calculation according to job requirements. 1.5 Satisfied the requirements mentioned in the Performance Criteria and Range of Variables |
| 2. Underpinning knowledge | <ul style="list-style-type: none"> 2.1 Types of Measuring Devices 2.2 Measurement and Calculation 2.3 Recording 2.4 Collection and storing materials. 2.5 Fraction and Decimals 2.6 Linear Measurement 2.7 Unit Of Conversion and Conversion Factors 2.8 Dimension 2.9 Ratio And Proportion 2.10 Trigonometric Function 2.11 Algebraic Equation 2.12 Allowances And Tolerances 2.13 Presentation Of Data and Information 2.14 Tolerances 2.15 Care in the Use of Measuring Devices |
| 3. Underpinning Skills | <ul style="list-style-type: none"> 3.1 Selecting measuring devices 3.2 Obtaining measurements 3.3 Performing calculations 3.4 Cleaning up |
| 4. Underpinning Attitude | <ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace |
| 5. Resource Implications | <p>The following resources must be provided</p> <ul style="list-style-type: none"> 5.1 Suitable ventilated work area/shop with facilities and accessories 5.2 Easy access and scope of measurement 5.3 Availability of quality measuring and calculating devices 5.4 Information on construction materials appropriate to the relevant construction field |

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| 6. Method of Assessment | Competency must be assessed by 6.1 Direct observation. 6.2 Demonstration 6.3 Written Test 6.4 Oral Questioning 6.5 Portfolio |
| 7. Context of Assessment | For certification, competency must be assessed in the actual workplace or in a simulated workplace individually after completion of the module. |
| <p>Accreditation Requirements</p> <p>Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), 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 national qualification.</p> <p>Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p> | |

National Technical and Vocational Qualifications Framework for Bangladesh
Unit of Competency

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| Unit Title | Use Hand Tools and Power Tools for the Construction (Finishing Carpentry) Sector |
| Unit Code | CON100412A |
| Nominal Hours | 36 hours |
| Unit Descriptor | This unit covers the skills, knowledge and attitude in using appropriate hand tools and power tools for the construction (Finishing Carpentry) sector. It includes the following steps: identify tools, use hand tools, use power tools, practice OHS, and cleaning up. |
| Elements of Competency | Performance Criteria <i>Bold & italicized</i> words are detailed in the Range of Variables |
| 1. Identify tools | 1.1 Appropriate tools are selected based on job requirements. 1.2 Applications of tools are defined properly. 1.3 Hand tools and power tools are prepared according to workplace procedures. 1.4 Sources of power supply for power tools are recognized. |
| 2. Use hand tools | 2.1 Appropriate tool is used according to workplace procedures. 2.2 Proper hand-eye coordination is applied in the use of hand tools. 2.3 Safety requirements are complied with before, during and after use. 2.4 Unsafe or faulty tools are identified and marked for repair according to workplace procedures. |
| 3. Use power tools | 3.1 Route for power supply established in accordance with work safety requirements. 3.2 Specific sequence of operations is applied in using power tools to produce results based on job specifications. 3.3 Power tools are safely and effectively used. |
| 4. Perform basic preventive maintenance | 4.1 Tools and equipment are cleaned according to workplace instructions. 4.2 Appropriate lubricants are identified according to types of equipment. 4.3 Tools and equipment are lubricated according to instructions. 4.4 Measuring instruments are checked and calibrated according to manufacturer's instructions. 4.5 Defective instruments, equipment and accessories are inspected and corrected/replaced to meet manufacturer's specifications. 4.6 Tools are inspected, repaired and replaced after use. 4.7 Work place is cleaned and cleared of debris and unwanted materials as per OHS regulations. |
| 5. Practice OHS | 5.1 Waste materials are disposed according to OHS and workplace requirements. 5.2 Hazardous materials are identified for separate handling. |

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| | <p>5.3 PPE are used as appropriate.</p> <p>5.4 Devices to suppress dust are used to minimize health risk of workers</p> <p>5.5 Safety requirements are being adhered to before, during and after use.</p> <p>5.6 Accidents and emergency cases are reported to proper authority.</p> <p>5.7 Workplace is cleaned and cleared of debris and unwanted materials.</p> |
| 6. Store tools and equipment | <p>6.1 Inventory of tools equipment are conducted, and recorded as per stock register by using forms.</p> <p>6.2 Tools and equipment are cleaned and stored as per manufactures recommendation safely in appropriate location.</p> |
| Range of Variables | |
| Variables | Range (Include but are not limited to): |
| 1. Tools | <p>1.1 Hand Tools</p> <p>1.2 Power Tools</p> |
| 2. Applications | <p>2.1 Adjusting</p> <p>2.2 Aligning</p> <p>2.3 Assembling</p> <p>2.4 Boring</p> <p>2.5 Clamping</p> <p>2.6 Cleaning</p> <p>2.7 Cutting</p> <p>2.8 Dismantling</p> <p>2.9 Finishing</p> <p>2.10 Hand sharpening</p> <p>2.11 Lubricating</p> <p>2.12 Scraping</p> <p>2.13 Simple Tool Repairs</p> <p>2.14 Threading</p> <p>2.15 Tightening</p> <p>2.16 Testing</p> |
| 3. Hand tools | <p>3.1 Adjustable spanners</p> <p>3.2 Auger bits</p> <p>3.3 Bars (crow and pitch)</p> <p>3.4 Bench vise</p> <p>3.5 Bolt cutters</p> <p>3.6 Brace</p> <p>3.7 C-clamp</p> <p>3.8 Chisels</p> <p>3.9 Crosscut saw</p> <p>3.10 Die and stock</p> <p>3.11 Drill bits</p> <p>3.12 Files of all cross-sectional shapes and types</p> <p>3.13 Gouges</p> <p>3.14 Grin let</p> <p>3.15 Hacksaw</p> <p>3.16 Hammers</p> <p>3.17 Hand drill</p> <p>3.18 Hand saws</p> <p>3.19 Measuring Tapes</p> <p>3.20 Nips</p> <p>3.21 Paint Brushes/Rollers</p> <p>3.22 Picks/Mattocks</p> <p>3.23 Pliers</p> <p>3.24 Plumb bob</p> |

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| | <ul style="list-style-type: none"> 3.25 Punches 3.26 Rip saw 3.27 Scarpers 3.28 Screwdrivers 3.29 Sealant Gun 3.30 Shovel/Spades 3.31 Sledge Hammers 3.32 Sockets 3.33 Spanners and Wrenches 3.34 Spatula/Putty Knives 3.35 Steel tape measure 3.36 String Lines 3.37 Taps 3.38 Triangle 3.39 Trowels and Floats 3.40 Try square 3.41 Vice grip 3.42 Wire Cutters 3.43 Wood Planes |
| 4. Power Tools | <ul style="list-style-type: none"> 4.1 Drills 4.2 Nail guns 4.3 Staplers 4.4 Screw Drivers 4.5 Angle Grinders 4.6 Pneumatic wrenches 4.7 Circular saw 4.8 Grinders 4.9 Jigsaws 4.10 Nibblers 4.11 Cutting saw 4.12 Threading machine 4.13 Sanders 4.14 Planers 4.15 Routers 4.16 Pedestal drills 4.17 Pedestal grinders |
| 5. Instructions | <ul style="list-style-type: none"> 5.1 Manufacturer's Specifications and Instructions for specific tools/equipment 5.2 Workplace orders and instructions 5.3 Work schedule documentation 5.4 Procedures |
| 6. PPE | <ul style="list-style-type: none"> 6.1 Dust mask 6.2 Safety glasses/Goggles 6.3 Gloves 6.4 Safety shoes/boots 6.5 Aprons 6.6 Face masks 6.7 Overalls 6.8 Helmet |
| 7. Forms | <ul style="list-style-type: none"> 7.1 Maintenance schedule forms 7.2 Requisition slip 7.3 Inventory Form 7.4 Inspection Forms 7.5 Procedures |
| <p>Evidence Guide: The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.</p> | |

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| 1. Critical aspects of competency | Assessment requires evidence that the candidate: 1.1 Use hand tools as per workplace requirement. 1.2 Maintain safety precaution for use hand & power tools. 1.3 Maintain operation procedure of power tools 1.4 Use power tools as per work place requirement. |
| 2. Underpinning knowledge | 2.1 Types of Tools a. Hand Tools b. Power Tools 2.2 Technical Application of Tools 2.3 Procedures in the Use of Hand Tools and Power Tools 2.4 Policies and procedures for Occupational health and Safety a. Use of PPE b. Handling of Tools and Equipment c. Reporting and Documentation 2.5 Preventive Maintenance a. Methods and Techniques b. Quality Procedures 2.6 Storage Procedures |
| 3. Underpinning Skills | 3.1 Identifying Appropriate Tools 3.2 Using Hand Tools Correctly 3.3 Using Power Tools Correctly 3.4 Performing Preventive Maintenance 3.5 Practicing OHS 3.6 Storing tools and equipment 3.7 Cleaning Up |
| 4. Underpinning Attitude | 4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace |
| 5. Resource Implications | The following resources must be provided 5.1 Tools, equipment and materials, consumable and physical facilities appropriate to the construction process 5.2 Information and documentation 5.3 Product specifications 5.4 Manual, Codes, Standards and reference materials |
| 6. Method of Assessment | Competency must be assessed by 6.1 Direct observation 6.2 Demonstration 6.3 Written Test 6.4 Oral Questioning 6.5 Portfolio |
| 7. Context of Assessment | For certification, competency must be assessed in the actual workplace or in a simulated workplace individually after completion of the module. |

Accreditation Requirements

Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), 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 national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.

OCCUPATION SPECIFIC COMPETENCIES

National Technical and Vocational Qualification Framework for Bangladesh
Finishing Carpentry: Level 1
Unit of Competency

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| Unit Title | Make Joints (Basic) |
| Unit Code | CONFC100112A |
| Nominal Hours | 50 |
| Unit Descriptor | This unit covers the knowledge, skill and attitude required to make different joints used in finishing carpentry work. It includes preparing for work, preparing wood for joints, assembling joints and cleaning the work area. |
| Elements Of Competency | Performance Criteria <i>Bold & Italicized</i> terms are elaborated in the range of variables |
| 1. Prepare for work | <p>1.1 <i>Personal Protective Equipment (PPE)</i> is selected and worn.</p> <p>1.2 Drawings are identified and interpreted as per job requirements.</p> <p>1.3 <i>Hand, power tools</i> and <i>equipment</i> are selected, and collected as per job requirements.</p> <p>1.4 <i>Tools</i> are sharpened as required.</p> <p>1.5 <i>Materials</i> are selected and collected according to job requirements.</p> <p>1.6 <i>Quality of materials</i> is checked as per job specification.</p> <p>1.7 <i>Joint</i> types of product are identified from workplace documentation.</p> <p>1.8 <i>Adhesives</i> and <i>fasteners</i> are selected to match the joint type.</p> |
| 2. Prepare wood for joints | <p>2.1 Hand and power tools are used in accordance with safety requirements and manufacturers' specifications.</p> <p>2.2 Wood is cut according to the drawing and specification.</p> <p>2.3 Wood pieces are planned as per requirement.</p> <p>2.4 Cutting and joining lines are marked out to suit joint type.</p> <p>2.5 Joints shapes are made as per joining lines marked.</p> |
| 3. Assemble joints | <p>3.1 Hand and power tools are used in accordance with safety requirements and manufacturers' specifications.</p> <p>3.2 Measurements and calculations are checked as per specification/drawing for accuracy to ensure quality outcomes.</p> <p>3.3 Wood pieces are pre-assembled in accordance with workplace requirements.</p> <p>3.4 Wood pieces are joined with fasteners and adhesives in accordance with workplace requirements.</p> <p>3.5 <i>Quality of finished joints</i> are checked according to the specification.</p> |

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| 4. Clean Workplace | <p>4.1 Work area and tools are cleaned as per requirement of workplace procedure.</p> <p>4.2 Tools and equipment are stored in safe place as per manufacturers' instruction.</p> <p>4.3 Unused materials are stored in the designated place.</p> <p>4.4 Waste materials are disposed as per workplace procedures.</p> |
| Range of Variables | |
| Variable | Range (may include but not limited to) : |
| 1. Personal protective equipment (PPE) | <p>1.1 Safety shoes</p> <p>1.2 Apron</p> <p>1.3 Helmet</p> <p>1.4 Goggles</p> <p>1.5 Dust mask</p> <p>1.6 Ear Plug</p> |
| 2. Hand Tools | <p>2.1 Jointer planer</p> <p>2.2 Smooth planer</p> <p>2.3 Jack planer</p> <p>2.4 Try square</p> <p>2.5 Flat chisel</p> <p>2.6 Mortise chisel</p> <p>2.7 Claw hammer</p> <p>2.8 Screwdriver (Flat)</p> <p>2.9 Screwdriver (Star)</p> <p>2.10 Pinchers</p> <p>2.11 Marking gauge</p> <p>2.12 Hand saw (rip saw, cross cut saw)</p> <p>2.13 Oil stone</p> <p>2.14 Bar clamp</p> <p>2.15 Measuring steel tape</p> <p>2.16 Flat file</p> <p>2.17 Tri – angular file</p> <p>2.18 Round file</p> <p>2.19 Half round file</p> |
| 3. Power tools | <p>3.1 Nailgun machine</p> <p>3.2 Electric planer</p> <p>3.3 Hand drill machine</p> |
| 4. Tools (Sharpen) | <p>4.1 Flat chisel</p> <p>4.2 Mortise chisel</p> <p>4.3 Hand saw</p> |
| 5. Equipment | 5.1 Working table/bench |
| 6. Materials | <p>6.1 Wood (Mango, Mahogany, sheel kariai, Gamari, Teak)</p> <p>6.2 Pencil</p> <p>6.3 Nail</p> <p>6.4 Screw</p> <p>6.5 Adhesive</p> <p>6.6 Bamboo/Wooden Wedge</p> |
| 7. Joints | <p>7.1 Tenon-Mortise</p> <p>7.2 Butt joint</p> <p>7.3 Half lap joint</p> |

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| | 7.4 Miter joint 7.5 Nail joint 7.6 Dovetail 7.7 Rabbet |
| 8. Adhesive | 8.1 Animal glue (local terms) 8.2 Casein glue 8.3 Formaldehyde glue 8.4 Contact glue |
| 9. Fasteners | 9.1 Nail 9.2 Wood screw |
| 10. Quality of materials | 10.1 Seasoned wood pieces. 10.2 Wood pieces are free from buds and cracks. 10.3 One directional wood grain |
| 11. Quality of finished joints | 11.1 Joints must be as per drawing with ± 0.50 mm tolerance 11.2 Joints surface must be maintained with ± 2 mm tolerance. 11.3 Joint surface must be smoothen and tighten. |
| Evidence Guide | |
| The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency. | |
| 1. Critical aspects of competency | Assessment requires evidence that the candidate must be able to: 1.1 Followed OSH practices as per requirement. 1.2 Maintained safety precaution for using hand and power tool. 1.3 Measured dimension of joints as per drawing. 1.4 Prepared joint is right angled as per drawing. |
| 2. Underpinning knowledge | 2.1 Types of wood and their properties. 2.2 Quality criteria of wood. 2.3 Types of joints used in finishing carpentry work. 2.4 Application of joints based on product. 2.5 Selection of tools as per joint. 2.6 Measurement of wood plank. |
| 3. Underpinning skills | 3.1 Measuring wood as per requirement. 3.2 Cutting of wood as per drawing. 3.3 Measuring length, width and depth of joint. 3.4 Planning procedure of wood. 3.5 Chiseling wood as per mark line. 3.6 Making joints as per drawing. |
| 4. Required attitude | 4.1 Commitment to occupational safety and health 4.2 Communication with peers, sub-ordinates and seniors in workplace. 4.3 Promptness in carrying out activities. 4.4 Tidiness and timeliness. 4.5 Respect of peers, sub-ordinates and seniors in workplace. 4.6 Environmental concern. 4.7 Sincere and honest to duties. 4.8 Eagerness to learn. |
| 5. Resource implication | The following resources must be provided: |

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| | <ul style="list-style-type: none"> 5.1 Workplace 5.2 Work place Procedure 5.3 Tools and equipment appropriate to maintain workplace. 5.4 Materials relevant to the proposed activity. 5.5 Equipment and outfits appropriate in applying safety measures. 5.6 Relevant drawings, manuals, codes, standards and reference material |
| 6. Methods of assessment | <p>Competency must be assessed through:</p> <ul style="list-style-type: none"> 6.1 Performance Test / Demonstration 6.2 Oral Questioning 6.3 Written Test |
| 7. Context of assessment | Participants must be assessed individually in the actual work place or in a simulated work place. |
| <p>Accreditation Requirements Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the national quality assessment body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit toward the award of any national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p> | |

National Technical and Vocational Qualification Framework for Bangladesh
Finishing Carpentry: Level 1
Unit of Competency

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| Unit Title | Make Door Components |
| Unit Code | CONFC100212A |
| Nominal Hours | 35 |
| Unit Descriptor | This unit covers the knowledge, skill and attitude required to make components of door. It includes preparing for work, making components of door, and cleaning the work area. |
| Elements Of Competency | Performance Criteria <i>Bold & Italicized</i> terms are elaborated in the range of variables |
| 1. Prepare for work | 1.1 <i>Personal Protective Equipment (PPE)</i> is selected and worn. 1.2 Drawings are identified and interpreted as per job requirements. 1.3 <i>Hand, power tools</i> and <i>equipment</i> are selected and collected as per job requirements. 1.4 <i>Materials</i> for <i>door components</i> are selected and collected according to job requirements. 1.5 Quality of materials is checked as per specification workplace requirements. |
| 2. Prepare components of door. | 2.1 Hand and power tools are used in accordance with safety requirements and manufacturers' specifications. 2.2 Wood is cut according to the drawing and specification. 2.3 Wood pieces are smoothed as per job requirement. 2.4 Cutting and joining lines are marked out to suit joint type. 2.5 <i>Joints</i> shapes are made as per joining lines marked. |
| 3. Clean Workplace | 3.1 Work area and tools are cleaned as per requirement of workplace procedure. 3.2 Tools and equipment are stored in safe place as per manufacturer's instruction. 3.3 Unused materials are stored in the designated place. 3.4 Waste materials are disposed as per work place requirements. |
| Range of Variables | |
| Variable | Range (May include but not limited to) : |
| 1. Personal protective equipment (PPE) | 1.1 Safety shoes 1.2 Apron 1.3 Helmet 1.4 Goggles 1.5 Dust mask 1.6 Ear Plug |
| 2. Hand Tools | 2.1 Jinter planer 2.2 Smooth planer 2.3 Jack planner 2.4 Try square 2.5 Flat chisel 2.6 Mortise chisel 2.7 Claw hammer |

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| | <ul style="list-style-type: none"> 2.8 Screwdriver (Flat) 2.9 Screwdriver (Star) 2.10 Pinchers 2.11 Marking gauge 2.12 Hand saw (rip saw, cross cut saw) 2.13 Oil stone 2.14 Bar clamp 2.15 Measuring steel tape 2.16 Flat file 2.17 Tri – angular file 2.18 Round file 2.19 Half round file |
| 3. Power tools | <ul style="list-style-type: none"> 3.1 Nailgun machine 3.2 Electric planer 3.3 Hand drill machine |
| 4. Equipment | <ul style="list-style-type: none"> 4.1 Working table/bench |
| 5. Materials | <ul style="list-style-type: none"> 5.1 Wood (Mango, Mahogany, sheel kariai, Gamari, Teak) 5.2 Pencil 5.3 Nail 5.4 Screw 5.5 Adhesive 5.6 Bamboo/Wooden Wedge |
| 6. Materials for Door Components | <ul style="list-style-type: none"> 6.1 Door frame (Chowkat) 6.2 Door Leaf (Palla) |
| 7. Joints | <ul style="list-style-type: none"> 7.1 Dovetail 7.2 Rabbet |
| <p>Evidence Guide</p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.</p> | |
| 1. Critical aspects of competency | <p>Assessment requires evidence that the candidate must be able to:</p> <ul style="list-style-type: none"> 1.1 Followed OSH practices as per requirement. 1.2 Maintained safety precaution for using hand and power tools. 1.3 Identified and interpreted drawings as per requirement 1.4 Prepared joints are right angled. 1.5 Prepared joints are tight 1.6 Check measurement and calculation. |
| 2. Underpinning knowledge | <ul style="list-style-type: none"> 2.1 List tools and materials for making door components. 2.2 Name of joints used in making door component. 2.3 Standard size of door components. 2.4 Steps of making door frame. 2.5 Steps of making door leaf. |
| 3. Underpinning skills | <ul style="list-style-type: none"> 3.1 Handling hand and power tools. 3.2 Cutting wood as per drawing. 3.3 Smoothing procedure of wood. 3.4 Chiseling wood as per mark line. 3.5 Making joints as per drawing. |
| 4. Required attitude | <ul style="list-style-type: none"> 4.1 Commitment to occupational safety and health 4.2 Communication with peers, sub-ordinates and |

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| | <p>seniors in workplace.</p> <p>4.3 Promptness in carrying out activities.</p> <p>4.4 Tidiness and timeliness.</p> <p>4.5 Respect of peers, sub-ordinates and seniors in workplace.</p> <p>4.6 Environmental concern.</p> <p>4.7 Sincere and honest to duties.</p> <p>4.8 Eagerness to learn.</p> |
| 5. Resource implication | <p>The following resources must be provided:</p> <p>5.1 Work place Procedure.</p> <p>5.2 Tools and equipment appropriate to maintain workplace.</p> <p>5.3 Materials relevant to the proposed activity.</p> <p>5.4 Equipment and outfits appropriate in applying safety measures.</p> <p>5.5 Relevant drawings, manuals, codes, standards and reference material</p> |
| 6. Methods of assessment | <p>Competency must be assessed through:</p> <p>6.1 Performance Test / Demonstration.</p> <p>6.2 Oral Questioning.</p> <p>6.3 Written Test.</p> |
| 7. Context of assessment | <p>Participants must be assessed individually in the actual work place or in a simulated work place.</p> |
| <p>Accreditation Requirements</p> <p>Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the national quality assessment body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit toward the award of any national qualification.</p> <p>Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p> | |

National Technical and Vocational Qualification Framework for Bangladesh
Finishing Carpentry: Level 1
Unit of Competency

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|--|--|
| Unit Title | Make Window Components |
| Unit Code | CONFC100312A |
| Nominal Hours | 35 |
| Unit Descriptor | This unit covers the knowledge, skill and attitude required to make components of window. It includes preparing for work, making components of window and cleaning the work area. |
| Elements Of Competency | Performance Criteria <i>Bold & Italicized</i> terms are elaborated in the range of variables |
| 1. Prepare for work | 1.1 Personal Protective Equipment (PPE) is selected and worn. 1.2 <i>Hand, power tools</i> and <i>equipment</i> are selected and collected as per job requirements. 1.3 <i>Materials</i> for <i>components</i> of window are selected following the job specification. 1.4 Drawings are identified and interpreted as per job requirements. 1.5 Tools are checked for safe and effective operations. |
| 2. Make components of window | 2.1 Hand and power tools are used in accordance with safety requirements and manufacturers' specifications. 2.2 Wood is cut according to the drawing and specification. 2.3 Wood pieces are plane as per job requirement. 2.4 Cutting and joining lines are marked out to suit joint type. 2.5 <i>Joints</i> shapes are made as per joining lines marked. |
| 3. Clean Workplace | 3.1 Work area and tools are cleaned as per workplace procedure. 3.2 Tools and equipment are stored in safe place as per Manufacturer's specification. 3.3 Unused materials are stored in the designated place. 3.4 Waste materials are disposed as per work place Procedure. |
| Range of Variables | |
| Variable | Range (may include but not limited to) : |
| 1. Personal protective equipment (PPE) | 1.1 Safety shoes 1.2 Apron 1.3 Helmet 1.4 Goggles 1.5 Dust mask 1.6 Ear Plug |
| 2. HandTools | 2.1 Jinter planer 2.2 Smooth planer 2.3 Jack planner 2.4 Try square 2.5 Flat chisel |

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| | <ul style="list-style-type: none"> 2.6 Mortise chisel 2.7 Claw hammer 2.8 Screwdriver (Flat) 2.9 Screwdriver (Star) 2.10 Pinchers 2.11 Marking gauge 2.12 Hand saw (rip saw, cross cut saw) 2.13 Oil stone 2.14 Bar clamp 2.15 Measuring steel tape 2.16 Flat file 2.17 Tri – angular file 2.18 Round file 2.19 Half round file |
| 3. Power tools | <ul style="list-style-type: none"> 3.1 Nailgun machine 3.2 Electric planer 3.3 Hand drill machine |
| 4. Equipment | <ul style="list-style-type: none"> 4.1 Working table/bench |
| 5. Materials | <ul style="list-style-type: none"> 5.1 Wood (Mango, Mahogany, sheel kariai, Gamari, Teak) 5.2 Pencil 5.3 Nail 5.4 Screw 5.5 Adhesive 5.6 Bamboo/Wooden Wedge |
| 6. Components | <ul style="list-style-type: none"> 6.1 Window frame 6.2 Window leaf |
| 7. Joints | <ul style="list-style-type: none"> 7.1 Dovetail 7.2 Rabbet |
| Evidence Guide | |
| The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency. | |
| 1. Critical aspects of competency | <p>Assessment requires evidence that the candidate must be able to:</p> <ul style="list-style-type: none"> 1.1 Followed OSH practices as per requirement. 1.2 Maintained safety precaution for using hand and power tools. 1.3 Identified and interpreted drawings as per requirement. 1.4 Prepared joints are right angled. 1.5 Prepared joints are tight. 1.6 Check measurement and calculation |
| 2. Underpinning knowledge | <ul style="list-style-type: none"> 2.1 List tools and materials for making window components 2.2 Name of joints used in making window component. 2.3 Standard size of window components. 2.4 Steps of making window frame. 2.5 Steps of making window leaf. |
| 3. Underpinning skills | <ul style="list-style-type: none"> 3.1 Handling hand and power tools. 3.2 Cutting wood as per drawing. 3.3 Planning procedure of wood. 3.4 Chiseling wood as per mark line. 3.5 Making joints as per drawing. |

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| 4. Required attitude | <ul style="list-style-type: none"> 4.1 Commitment to occupational safety and health 4.2 Communication with peers, sub-ordinates and seniors in workplace. 4.3 Promptness in carrying out activities. 4.4 Tidiness and timeliness. 4.5 Respect of peers, sub-ordinates and seniors in workplace. 4.6 Environmental concern. 4.7 Sincere and honest to duties. 4.8 Eagerness to learn. |
| 5. Resource implication | <p>The following resources must be provided:</p> <ul style="list-style-type: none"> 5.1 Workplace. 5.2 Work place Procedure. 5.3 Tools and equipment appropriate to maintain workplace. 5.4 Materials relevant to the proposed activity. 5.5 Equipment and outfits appropriate in applying safety measures. 5.6 Relevant drawings, manuals, codes, standards and reference material |
| 6. Methods of assessment | <p>Competency must be assessed through:</p> <ul style="list-style-type: none"> 6.1 Performance Test / Demonstration 6.2 Oral Questioning 6.3 Written Test |
| 7. Context of assessment | <p>Participants must be assessed individually in the actual work place or in a simulated work place.</p> |
| <p>Accreditation Requirements Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the national quality assessment body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit toward the award of any national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p> | |

National Technical and Vocational Qualification Framework for Bangladesh
Finishing Carpentry: Level 1
Unit of Competency

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|--|--|
| Unit Title | Make Cabinet Components |
| Unit Code | CONFC100412A |
| Nominal Hours | 42 |
| Unit Descriptor | This unit covers the knowledge, skill and attitude required to make components of cabinet. It includes preparing for work, making components of cabinet, assembling components of cabinet and cleaning the work area. |
| Elements Of Competency | Performance Criteria <i>Bold & Italicized</i> terms are elaborated in the range of variables |
| 1. Prepare for work | 1.1 <i>Personal Protective Equipment (PPE)</i> is selected and worn. 1.2 <i>Hand, power tools</i> and <i>equipment</i> are selected and collected as per job requirements. 1.3 <i>Materials</i> for <i>components</i> of <i>cabinets</i> are selected following the work instructions. 1.4 Drawings are identified and interpreted as per job requirements. 1.5 Tools are checked for safe and effective operations. |
| 2. Make components of cabinet | 2.1 Hand and power tools are used in accordance with safety requirements and manufacturers' specifications. 2.2 Wood is cut according to the drawing and specification. 2.3 Wood pieces are smoothed as per requirement. 2.4 Cutting and joining lines are marked out to suit joint type. 2.5 Joints shapes are made as per joining lines marked. |
| 3. Clean Workplace | 3.1 Work area and tools are cleaned as per requirement of workplace procedure. 3.2 Tools and equipment are stored in safe place as per manufacturer's specification. 3.3 Unused materials are stored in the designated place. 3.4 Waste materials are disposed as per work place procedure. |
| Range of Variables | |
| Variable | Range (may include but not limited to) : |
| 1. Personal protective equipment (PPE) | 1.1 Safety shoes 1.2 Apron 1.3 Helmet 1.4 Goggles 1.5 Dust mask 1.6 Ear Plug |

| | |
|----------------|---|
| 2. Hand Tools | <ul style="list-style-type: none"> 2.1 Jointer planer 2.2 Smooth planer 2.3 Jack planner 2.4 Try square 2.5 Flat chisel 2.6 Mortise chisel 2.7 Claw hammer 2.8 Screwdriver (Flat) 2.9 Screwdriver (Star) 2.10 Pinchers 2.11 Marking gauge 2.12 Hand saw (rip saw, cross cut saw) 2.13 Oil stone 2.14 Bar clamp 2.15 Measuring steel tape 2.16 Flat file 2.17 Tri – angular file 2.18 Round file 2.19 Half round file |
| 3. Power tools | <ul style="list-style-type: none"> 3.1 Nail gun machine 3.2 Electric planer 3.3 Hand drill machine |
| 4. Equipment | <ul style="list-style-type: none"> 4.1 Working table/bench |
| 5. Materials | <ul style="list-style-type: none"> 5.1 Wood (Mango, Mahogany, sheel kariai, Gamari, Teak) 5.2 Pencil 5.3 Nail 5.4 Screw 5.5 Adhesive 5.6 Bamboo/Wooden Wedge 5.7 Magnet 5.8 Magnet Push bolt 5.9 Edge belt 5.10 Chain hinge 5.11 Door handle 5.12 Drawer slider/runner 5.13 Drawer knob |
| 6. Components | <ul style="list-style-type: none"> 6.1 Sides 6.2 Top part 6.3 Bottom part 6.4 Shelf 6.5 Leaf(Palla) 6.6 Drawer 6.7 Partition 6.8 Hanger |
| 7. Cabinet | <ul style="list-style-type: none"> 7.1 Wall showcase 7.2 Wall Almirah 7.3 Kitchen Cabinet |
| 8. Joints | <ul style="list-style-type: none"> 8.1 Dovetail joint 8.2 Miter joint |

| Evidence Guide | |
|---|--|
| The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency. | |
| 1. Critical aspects of competency | <p>Assessment requires evidence that the candidate must be able to:</p> <ul style="list-style-type: none"> 1.1 Followed OSH practices as per requirement. 1.2 Maintained safety precaution for using hand and power tools. 1.3 Identified and interpreted drawings as per requirement 1.4 Prepared joints are right angled. 1.5 Prepared joints are tight. 1.6 Check measurement and calculations |
| 2. Underpinning knowledge | <ul style="list-style-type: none"> 2.1 List tools and materials for making cabinet components. 2.2 Name of joints used in making cabinet component. 2.3 Standard size of cabinet components. 2.4 Steps of making side of cabinet. 2.5 Steps of making top part/bottom of cabinet. 2.6 Steps of making drawer of cabinet. |
| 3. Underpinning skills | <ul style="list-style-type: none"> 3.1 Handling hand and power tools. 3.2 Cutting wood as per drawing. 3.3 Planning procedure of wood. 3.4 Chiseling wood as per mark line. 3.5 Making joints as per drawing. |
| 4. Required attitude | <ul style="list-style-type: none"> 4.1 Commitment to occupational safety and health 4.2 Communication with peers, sub-ordinates and seniors in workplace. 4.3 Promptness in carrying out activities. 4.4 Tidiness and timeliness. 4.5 Respect of peers, sub-ordinates and seniors in workplace. 4.6 Environmental concern. 4.7 Sincere and honest to duties. 4.8 Eagerness to learn. |
| 5. Resource implication | <p>The following resources must be provided:</p> <ul style="list-style-type: none"> 5.1 Workplace. 5.2 Work place Procedure. 5.3 Tools and equipment appropriate to maintain workplace. 5.4 Materials relevant to the proposed activity. 5.5 Equipment and outfits appropriate in applying safety measures. 5.6 Relevant drawings, manuals, codes, standards and reference material |
| 6. Methods of assessment | <p>Competency must be assessed through:</p> <ul style="list-style-type: none"> 6.1 Performance Test / Demonstration. 6.2 Oral Questioning. 6.3 Written Test. |
| 7. Context of assessment | Participants must be assessed individually in the actual work place or in a simulated work place. |
| Accreditation Requirements | |
| Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the national quality assessment body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit toward the award of National Certificate for Finishing Carpentry Final Version | |

any national qualification.

Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.

Annexes
Annex 1. Competency Map for Finishing Carpentry in Construction Sector

| | | | | | | |
|---|----------------------------|-----------------------------|-------------------------------|--------------------------------|---|--|
| Occupation Specific Competencies | Make Joints (Basic) | Make Door Components | Make Window Components | Make Cabinet Components | | |
| | 1 | 1 | 1 | 1 | | |
| | | | | | | |
| | 2 | 2 | 2 | 2 | 2 | |
| | | | | | | |
| | 3 | 3 | 3 | 3 | 3 | |
| | | | | | | |
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|-------------------------------------|---|--|---|--|--|--|
| Sector Specific Competencies | Work in the Construction (Finishing Carpentry) Sector | Interpret Drawings and Specifications in Construction (Finishing Carpentry) Sector | Perform Measurement and Calculations in Construction (Finishing Carpentry) Sector | Use Hand Tools and Power Tools for the Construction (Finishing Carpentry) Sector | | |
| | 1 | 1 | 1 | 1 | | |
| | | | | | | |
| | 2 | 2 | | | | |
| Generic Competencies | Use Basic Mathematical Concepts | Apply OSH Practices in the Workplace | | | | |
| | 1 | 1 | | | | |
| | | | | | | |
| | 3 | 3 | 3 | | | |

Annex 2. Bangladesh National Qualifications Framework

| TVQF Level | Education Type | | | Current Qualification Structure | Job Classification |
|------------|----------------|-----------|---------|---------------------------------|--|
| | Pre-Voc | VE | TE | | |
| TVQF 6 | | | Diploma | 4-year Diploma | Supervisor/Middle Manager/Sub-Assistant Engineer |
| TVQF 5 | | **NSC-V | | NSS Master | Highly-Skilled Worker/Supervisor |
| TVQF 4 | | **NSC-IV | | NSS 1/HSC (Voc) Year 11/12 | Skilled Worker |
| TVQF 3 | | **NSC-III | | NSS 2/SSC (Voc) Year 10 | Semi-Skilled Worker |
| TVQF 2 | | **NSC-II | | NSS 3/SSC (Voc) Year 9 | Basic Skilled Worker |
| TVQF 1 | | **NSC-I | | NSS Basic/Basic Trade Course | Basic Worker |
| Pre-Voc 2 | *NPVC-II | | | None | Pre-Vocational Trainee |
| Pre-Voc 1 | *NPVC-I | | | None | Pre-Vocational Trainee |

*NPVC – National Pre-Vocational Certificate

**NSC – National Skill Certificate

Annex 3. Qualification Level Descriptors

| BTVQ F Level | Knowledge | Skill | Responsibility | Job Class |
|-----------------------------|--|---|--|--|
| 6 | Comprehensive actual and theoretical knowledge within a specific study area with an awareness of the limits of that knowledge. | Specialised and restricted range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems | Manage a team or teams in workplace activities where there is unpredictable change Identify and design learning programs to develop performance of team members | Supervisor/Middle-Level Manager/Sub Assistant Engineer |
| 5 | Very broad knowledge of the underlying, concepts, principles, and processes in a specific study area | Very broad range of cognitive and practical skills required to generate solutions to specific problems in one or more study areas. | Take overall responsibility for completion of tasks in work or study Apply past experiences in solving similar problems | Highly Skilled Worker/ Supervisor (NSC 4) |
| 4 | Broad knowledge of the underlying, concepts, principles, and processes in a specific study area | 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 | Take responsibility, within reason, for completion of tasks in work or study Apply past experiences in solving similar problems | Skilled Worker |
| 3 | Moderately broad knowledge in a specific study area. | 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 | Work or study under supervision with some autonomy | Semi Skilled worker |
| 2 | Basic underpinning knowledge in a specific study area. | Basic skills required to carry out simple tasks | Work or study under indirect supervision in a structured context | Medium Skilled Worker |
| 1 | Elementary understanding of the underpinning knowledge in a specific study area. | Limited range of skills required to carry out simple tasks | Work or study under direct supervision in a structured context | Basic Skilled Worker |

| BTVQ F Level | Knowledge | Skill | Responsibility | Job Class |
|-----------------------------|-------------------------------------|--|--|-------------------------------|
| Pre-Voc 2 | Limited general knowledge | Very limited range of skills and use of tools required to carry out simple tasks | Work or study under direct supervision in a well-defined, structured context. | Pre-Vocation Trainee (NPVC 2) |
| Pre-Voc 1 | Extremely limited general knowledge | Minimal range of skills required to carry out simple tasks | Simple work or study exercises, under direct supervision in a clear, well defined structured context | Pre-Vocation Trainee (NPVC 1) |

Annex 4. Key for Coding

| Code | Description |
|---------------------|--------------------------------|
| Occupational Sector | |
| RMG | Ready-Made Garments |
| LEG | Light Engineering |
| CON | Construction |
| INF | Informal Sector |
| Occupation | |
| MAS | Mason |
| PLM | Plumbing |
| PNT | Painter |
| SFF | Scaffold and Form Fitter |
| FC | Finishing Carpentry |
| Competencies | |
| GN | Generic Competencies |
| SS | Sector Specific Competency |
| OS | Occupation Specific competency |

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