Skills for Employment Investment Program (SEIP)

COMPETENCY STANDARD

FOR

WEAVING TECHNOLOGY

(TEXTILE SECTOR)

Finance Division, Ministry of Finance
Government of the People's Republic of Bangladesh

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Introduction

The Skills for Employment Investment Program (SEIP) Project of the Finance Division of the Ministry of Finance has embarked on a project which aims to qualitatively and quantitatively expand the skilling capacity of identified public and private training providers by establishing and operationalising a responsive skill ecosystem and delivery mechanism through a combination of well-defined set of funding triggers and targeted capacity support.

Among the many components of the project, one is to promote a Market Responsive Inclusive Skills Training Delivery programme. Key priority economic growth sectors identified by the government have been targeted by the project to improve current job skills along with up-skilling of the 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 programmes. Priority sectors were identified to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), employer associations and employers.

This document 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.

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 national and international subject-matter experts, SEIP, BTEB, ISC, and industry experts to identify the competencies required of an occupation in a particular sector.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. Competency standards acknowledge that people can achieve technical and vocational competency in many ways by emphasising 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 guide

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

Identification and validation of units of competency and elements for this occupation were made by experts within this sector. A series of meetings were held to accurately capture industry and employer needs and expectations, and develop the competency framework that would help to enhance the employability of the

youth trained. This process started on 23 January 2017 and concluded with a validation workshop with working group on 10 April 2017, and was reviewed and revised on 14 April 2018.

Experts Involved

Industry and subject-matter experts who provided their valuable inputs to develop this competency standard [January – March 2017]:

Name	Organisation	Designation
Engr. Mozaffar Hossain	SIM Group	Managing Director
Mr. Masud Rana	Asia Composite Mills Limited	Managing Director
Prof. Dr. Shah Alimuzzaman Belal	Bangladesh University of Textiles (BuTex)	Dean - Faculty of Textile Engineering
Mr. Abu Rayhan Albeeroonee	BTMA-SEIP	Chief Coordinator
Engr. AKM Mozammel Hoque	Asia Composite Mills Limited	Director Operation
Engr. Khen Maung	Director Operation	NZ Textile Limited
Dr. Md. Shah Alam Majumder	BTEB	Specialist (Course Accreditation) - NTVQF Cell
Rashmi Mehra	British Council - SD03	International Consultant for Development of CBLM
Md. Abdus Sadeque	British Council - SD03	National Subject Matter Consultant - Textile

Development Workshop

Working group formation and competency standard development workshop participants (held on 9 April 2017):

Name	Organisation	Designation
Md. Masud Rana	Asia Composite Mills Limited	Managing Director
Ms. Shilpi Akter	Bangladesh University of Textiles (BUTEX)	Assistant Professor & Head of Department of Textile Engineering
Toufique Ahmed	NITER-BTMA	Assistant Professor
Kamrun Nahar Shetu	BTMA-SEIP	Acting Coordinator
Prottoy Roy	SIM Group	Senior Executive - Quality and Textile Testing
Md. Saidur Rahman	SIM Group	Assistant Production Manager
Engr. Md. Shahjahan Feroze	Dhaka Ahsania Mission	Textile Expert & Manager VTI

Name	Organisation	Designation
Dr. Md. Shah Alam Majumder	BTEB	Specialist (Course Accreditation) - NTBQF Cell
Rashmi Mehra	British Council - SD03	International Consultant for Development of CBLM
Md. Abdus Sadeque	British Council - SD03	National Subject Matter Consultant - Textile

Validation Workshop

Competency standard validation workshop participants (held on 10 April 2017):

Name	Organisation	Designation
Mr. Masud Rana	Asia Composite Mills Ltd	Managing Director
Ms. Shilpi Akter	Bangladesh University of Textiles (BUTEX)	Assistant Professor & Head of Department of Textile Engineering.
Toufique Ahmed	NITER-BTMA	Assistant professor
Prottoy Roy	SIM Group	Senior Executive - Quality and Textile Testing
Dr. Md. Shah Alam Majumder	BTEB	Specialist (Course Accreditation) - NTBQF Cell
Rashmi Mehra	British Council - SD03	International Consultant for Development of CBLM
Md. Abdus Sadeque	British Council - SD03	National Subject Matter Consultant - Textile

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 Chart

Units of Competency	Elements		
A. Generic (basic) Competencies (48 hours)			
Use basic mathematical concepts SEIP-TEX-WVG-01-G	Identify calculation requirements in the workplace	Select appropriate mathematical methods/concepts for the calculation	Use tools and instruments to perform calculations
Apply occupational health and safety (OHS) practices in the workplace SEIP-TEX-WVG-02-G	Identify OHS policies and procedures	Apply personal health and safety practices	Report hazards and risks
	Respond to emergencies		
Carry out workplace interaction SEIP-TEX-WVG-03-G	Interpret workplace communication and etiquette	Read and understand workplace documents	Participate in workplace meetings and discussions
	Apply professional ethics at work		
Operate in a team environment SEIP-TEX-WVG-04-G	Identify team goals and work processes	Identify own role and responsibilities within team	Communicate and co-operate with team members
	Perform problem solving within the team		
Apply basic IT skills SEIP-TEX-WVG-05-G	Identify and use most commonly used IT tools	Understand use of computer	Work with word processing application
	Work with spreadsheets	Access email and search the internet	
B. Sector-specific (common) Competencies (48 hours)			
Explore the history of Textile Sector SEIP-TEX-WVG-01-S	Examine the background of textile sector	Identify main industries within textile sector	Identify prime local and export markets

Use hand and power tools SEIP-TEX-WVG-02-S	Identify and inspect hand and power tools	Use hand tools properly and safely	Operate power tools properly and safely
	Clean and maintain hand and power tools		
Read and interpret sketches and drawings SEIP-TEX-WVG-03-G	Interpret information and specifications	Read and interpret sketches and drawings	

C. Occupation-specific (core) Competencies (264 hours)

Identify basics of weaving technology SEIP-TEX-WVG-01-O	Define weaving technology	Identify tools and equipment	Classify raw materials
Carry out preparation for weaving operation SEIP-TEX-WVG-02-O	Perform winding task	Perform wrapping task	Performing sizing task
Perform shredding operation SEIP-TEX-WVG-03-O	Identify dobby shedding	Prepare for shedding	Perform tappet shedding
	Perform jacquard shedding		
Perform picking operation SEIP-TEX-WVG-04-O	Identify picking process	Prepare for picking	Perform conventional picking
	Perform air jet picking	Perform rapier, projectile and water jet picking	
Perform beating operation SEIP-TEX-WVG-05-O	Analyse different beating mechanisms	Prepare for beating operation	Perform cam and crank beat up
	Perform beating system with conventional loom	Perform beating system with modern loom	
Identify weaving accessories and fabric faults SEIP-TEX-WVG-06-O	Identify weaving accessories	Identify fabric faults	Test the quality of the fabric

Units and Elements Table

A. Generic (basic) Competencies

Code	Unit of Competency	Elements of Competency	Duration (hours)
SEIP-TEX-WVG-01-G	Use basic mathematical concepts	**1.** Identify calculation requirements in the workplace. **2.** Select appropriate mathematical methods/concepts for the calculation. **3.** Use tools and instruments to perform calculation.	4
SEIP-TEX-WVG-02-G	Apply occupational health and safety (OHS) practice in the workplace	**1.** Identify OHS policies and procedures. **2.** Apply personal health and safety practices. **3.** Report hazards and risks. **4.** Respond to emergencies.	8
SEIP-TEX-WVG-03-G	Carry out workplace interaction	**1.** Interpret workplace communication and etiquette. **2.** Read and understand workplace documents. **3.** Participate in workplace meetings and discussions. **4.** Practice professional ethics at work	8
SEIP-TEX-WVG-04-G	Operate in a team environment	**1.** Identify team goals and work processes. **2.** Identify own role and responsibilities within team. **3.** Communicate and co-operate with team members. **4.** Practice problem solving within the team.	8
SEIP-TEX-WVG-05-G	Apply basic IT skills	**1.** Identify and use most commonly used IT tools. **2.** Understand use of computer. **3.** Work with word processing application. **4.** Work with spreadsheets. **5.** Access email and search the internet.	20
Total Hours			**48**

B. Sector-specific (common) Competencies

Code	Unit of Competency	Elements of Competency	Duration (hours)
SEIP-TEX-WVG-01-S	Explore the history of Textile Sector	1. Examine the background of textile sector. 2. Identify main industries within textile sector. 3. Identify prime local and export markets.	16
SEIP-TEX-WVG-02-S	Use hand and power tools	1. Identify and inspect hand and power tools. 2. Use hand tools properly and safely. 3. Operate power tools properly and safely. 4. Clean and maintain hand and power tools.	16
SEIP-TEX-WVG-03-S	Read and interpret sketches and drawings	1. Interpret information and specifications. 2. Read and interpret sketches and drawings.	16
Total Hours			**48**

C. Occupation-specific (core) Competencies

Code	Unit of Competency	Elements of Competency	Duration (hours)
SEIP-TEX-WVG-01-O	Identify the basics of weaving technology	1. Define weaving technology. 2. Identify tools and equipment.	40
SEIP-TEX-WVG-02-O	Carry out preparation for weaving operation	1. Perform winding task. 2. Perform warping task. 3. Perform sizing task.	48
SEIP-TEX-WVG-03-O	Perform shredding operation	1. Identify dobbing shedding. 2. Prepare for shedding. 3. Perform tappet shedding. 4. Perform jacquard shedding.	48
SEIP-TEX-WVG-04-O	Perform picking operation	1. Identify picking process. 2. Prepare for picking. 3. Perform conventional picking. 4. Perform air jet picking. 5. Perform rapier, projectile and water jet picking.	48
SEIP-TEX-WVG-05-O	Perform beating operation	1. Analyse different beating mechanisms.	48

Code	Unit of Competency	Elements of Competency	Duration (hours)
		2. Prepare for beating operation. **3.** Perform cam and crank beat up. **4.** Perform beating system with conventional loom. **5.** Perform beating system with modern loom.	
SEIP-TEX-WVG-06-O	Identify weaving accessories and fabric faults	**1.** Identify weaving accessories. **2.** Identify fabric faults. **3.** Test the quality of the fabric.	32
Total Hours			**264**

Competency Standard

A: Generic (basic) Competencies

Unit of Competency:	Nominal Duration:	Unit Code:
Use basic mathematical concepts	4 hours	SEIP-TEX-WVG-01-G

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to perform computations using basic mathematical concepts in the workplace. It specifically includes identifying general calculation requirements, selecting appropriate mathematical methods/concepts, and forming and solving mathematical problems in the workplace using appropriate tools and instruments.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Identify calculation requirements in the workplace	**1.1.** **Calculation requirements** are identified from **workplace information.** **1.2.** Mathematical problems are constructed from workplace information.
2. Select appropriate mathematical methods/concepts for the calculation	**2.1.** **Appropriate method** is selected to carry out calculation requirements. **2.2.** Constructed mathematical problems are solved with appropriate method.
3. Use tools and instruments to perform calculations	**3.1.** **Tools and instruments** required for computation are identified. **3.2.** Calculation is performed using appropriate tools and instruments accurately.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Calculation requirements	**1.1.** Unit **1.2.** Area **1.3.** Height/ length/ breadth/ thickness **1.4.** Diameter **1.5.** Weight **1.6.** Capacity **1.7.** Time **1.8.** Temperature **1.9.** Material/data usage **1.10.** Speed **1.11.** Costing **1.12.** Density

Variable	Range *(may include but not limited to)*
2. Workplace information	**2.1.** Floor environment **2.2.** Design sheet **2.3.** Specification sheet **2.4.** Working chart/drawing **2.5.** Standard operating procedure (SOP) **2.6.** Job order
3. Appropriate method	**3.1.** Addition **3.2.** Subtraction **3.3.** Division **3.4.** Multiplication **3.5.** Conversion **3.6.** Percentage and ratio calculation **3.7.** Simple equation
4. Tools and instruments	**4.1.** Calculator **4.2.** Cell phone **4.3.** Computer **4.4.** Measuring tape **4.5.** Ruler

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Numerical concepts **1.2.** Basic mathematical methods such as addition, subtraction, multiplication, division and percentage **1.3.** Mathematical language, symbols and terminology **1.4.** Measuring units
2. Underpinning skills	**2.1.** Construct simple problems from workplace information **2.2.** Solve problems using appropriate method, tools and instruments **2.3.** Use appropriate tools and instruments
3. Underpinning attitudes	**3.1** Prompt in carrying out activities **3.2** Tidy and punctual **3.3** Respectful of peers, subordinates and seniors in the workplace **3.4** Safely use tools and equipment **3.5** Sincere and honest concerning duties

Curricula Content Guide	
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Calculator **4.3.** Cell phone **4.4.** Computer **4.5.** Measuring tape **4.6.** Ruler **4.7.** Projector **4.8.** Stationary **4.9.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identified calculation requirements from workplace information **1.2.** selected appropriate method to carry out the calculation requirements **1.3.** completed calculations using appropriate tools and instruments
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency:	Nominal Duration:	Unit Code:
Apply occupational health and safety (OHS) practice in the workplace	8 hours	SEIP-TEX-WVG-02-G

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to apply occupational health and safety (OHS) practice in the workplace. It specifically includes identifying OHS policies and procedures, applying personal health and safety practices, reporting hazards and risks and responding to emergencies.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Identify OHS policies and procedures	**1.1.** **OHS policies** and safe operating procedures are interpreted. **1.2.** Safety signs and symbols are identified and followed. **1.3.** Response, evacuation procedures and other contingency measures are interpreted correctly.
2. Apply personal health and safety practices	**2.1.** OHS policies and procedures are applied in the workplace including **personal protective equipment (PPE)**. **2.2.** Common health issues are recognised. **2.3.** Common safety issues are identified.
3. Report hazards and risks	**3.1.** Hazards and risks are identified. **3.2.** Hazards and risks assessment and controls are interpreted.
4. Respond to emergencies	**4.1.** Respond to alarms and warning devices. **4.2.** **Emergency response plans and procedures** are responded to. **4.3.** **First aid procedures** during emergency situations are identified.

Range of Variables

Variable	Range *(may include but not limited to)*
1. OHS policies	**1.1.** Organisational OHS polices **1.2.** International OHS requirements **1.3.** Fire safety rules and regulations
2. Emergency response plans and procedures	**2.1.** Firefighting procedures **2.2.** Earthquake response procedures **2.3.** Emergency response plans and procedures **2.4.** Medical and first aid

Variable	Range *(may include but not limited to)*
3. First aid procedure	**3.1.** Washing of open wound **3.2.** Washing chemically infected area **3.3.** Applying bandage **3.4.** Taking appropriate medicine
4. Personal protective equipment	**4.1.** Safety glasses **4.2.** Ear muffs **4.3.** Ear plugs **4.4.** Gloves **4.5.** Apron **4.6.** Helmet **4.7.** Mask **4.8.** Safety shoes

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Workplace OHS policies and procedures **1.2.** Work safety procedures **1.3.** Emergency response procedures: **1.3.1.** Firefighting **1.3.2.** Earthquake response **1.3.3.** Accident response **1.4.** Types of hazards (biological, chemical and physical) and their effects **1.5.** OHS awareness **1.6.** Personal protective equipment (PPE)
2. Underpinning skills	**2.1.** Identify OHS policies and procedures **2.2.** Apply personal health and safety practices **2.3.** Report hazards and risks **2.4.** Respond to emergencies
3. Underpinning attitudes	**3.1.** Committed to occupational health and safety practices **3.2.** Communicates well with peers, subordinates and seniors in workplace **3.3.** Prompt in carrying out activities **3.4.** Tidy and punctual **3.5.** Sincere and honest concerning duties **3.6.** Responsible during emergencies

Curricula Content Guide	
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Personal protective equipment (PPE) **4.3.** Firefighting equipment **4.4.** Emergency response manual **4.5.** First aid kits **4.6.** Projector **4.7.** Stationary **4.8.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identified OHS policies and procedures **1.2.** applied personal health and safety practices (including PPE) **1.3.** reported hazards and risks **1.4.** responded to emergencies
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency:	Nominal Duration:	Unit Code:
Carry out workplace interaction	8 hours	SEIP-TEX-WVG-03-G

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to carry out workplace interaction. It specifically includes workplace communication, etiquette, understanding workplace documents, workplace meetings and discussions, and professional ethics at work.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Interpret workplace communication and etiquette	**1.1.** Workplace codes of conduct are interpreted as per organisational guidelines. **1.2.** Appropriate lines of communication are maintained with supervisors and colleagues. **1.3.** Workplace interactions are conducted in a **courteous manner** to gather and convey information. **1.4.** **Workplace procedures and matters** are comprehended.
2. Read and understand workplace documents	**2.1.** Workplace documents are interpreted correctly. **2.2.** Visual information/symbols/signage are understood correctly and followed. **2.3.** Specific and relevant information are accessed from **appropriate sources**. **2.4.** Appropriate medium is used to transfer information and ideas.
3. Participate in workplace meetings and discussions	**3.1.** Team meetings are attended on time. **3.2.** Meeting procedures and etiquette are followed. **3.3.** Active participation is ensured, opinions are expressed and heard. **3.4.** Inputs are provided and interpreted in line with the meeting purpose.
4. Practice professional ethics at work	**4.1.** Responsibilities as a team member are performed. **4.2.** Tasks are performed in accordance with workplace procedures. **4.3.** Confidentiality is maintained. **4.4.** Inappropriate and conflicting situations are avoided.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Courteous manner	**1.1.** Effective questioning **1.2.** Active listening **1.3.** Speaking skills **1.4.** Writing skill **1.5.** Email etiquette

Variable	Range *(may include but not limited to)*
2. Workplace procedures and matters	**2.1.** Notes **2.2.** Arranging a meeting **2.3.** Agenda **2.4.** Simple reports such as progress and incident reports **2.5.** Job sheets **2.6.** Operational manuals **2.7.** Brochures and promotional material **2.8.** Visual and graphic materials **2.9.** Standards **2.10.** OHS information **2.11.** Signs
3. Appropriate sources	**3.1.** Human Resources (HR) Department **3.2.** Managers **3.3.** Supervisors **3.4.** Management Information System (MIS)

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Workplace communication and etiquette **1.2.** Workplace documents, signs and symbols **1.3.** Meeting procedure and etiquette **1.4.** Professional ethics
2. Underpinning skills	**2.1.** Demonstrate workplace communication and etiquette **2.2.** Interpret workplace instructions and symbols **2.3.** Demonstrate active participation in workplace meeting **2.4.** Apply professional ethics at work
3. Underpinning attitudes	**3.1.** Prompt in carrying out activities **3.2.** Tidy and punctual **3.3.** Respectful of peers, subordinates and seniors in the workplace **3.4.** Concerned about the work environment **3.5.** Sincere and honest concerning duties
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Workplace procedures **4.3.** Workplace documents, signs and symbols **4.4.** Codes of conduct **4.5.** Projector **4.6.** Stationary **4.7.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** interpreted workplace communication and etiquette **1.2.** identified and interpreted workplace instructions and symbols **1.3.** actively participated in workplace meetings
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency:	Nominal Duration:	Unit Code:
Operate in a team environment	8 hours	SEIP-TEX-WVG-04-G

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to operate in a team environment. It specifically includes identifying team goals and work processes, roles and responsibilities, team communication and problem solving within the team.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Identify team goals and work processes	**1.1.** Roles and objectives of the team are identified and interpreted. **1.1.** Roles and responsibilities of team members are identified and interpreted.
2. Identify own role and responsibilities within team	**2.1.** Personal role and responsibilities are identified within the team environment. **2.2.** Reporting relationships are interpreted within team and external to team.
3. Communicate and co-operate with team members	**3.1.** Other teammates' tasks are identified and support provided when requested. **3.2.** The team is encouraged through **sharing information** or expertise, working together to solve problems, and putting team success first. **3.3.** Views and opinions of other team members are interpreted and respected.
4. Practice problem solving within the team	**4.1.** Problems faced at the individual and team level are identified and showed insight into the root-causes of the problems. **4.2.** A range of solutions and courses of action are identified together with benefits, costs, and risks associated with each. **4.3.** The good ideas of others to help develop solutions are recognised and advice sought from those who have solved similar problems. **4.4.** It is looked beyond the obvious and not stopped at the first answers.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Sharing information	**1.1.** Agenda **1.2.** Minutes **1.3.** Job sheets **1.4.** Progress and incident reports **1.5.** Operational manuals **1.6.** Visual and graphic materials **1.7.** Emails and SMS **1.8.** Phone directory **1.9.** Policy, procedure and standards **1.10.** OHS information

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Team goals and work processes **1.2.** Roles and responsibilities **1.3.** Finding problems and solving them
2. Underpinning skills	**2.1.** Identify own role and responsibility within team **2.2.** Communicate and co-operate with team members **2.3.** Solve problems within team environment
3. Underpinning attitudes	**3.1.** Active on teamwork **3.2.** Prompt in carrying out activities **3.3.** Tidy and punctual **3.4.** Respectful of peers, subordinates and seniors in the workplace **3.5.** Sincere and honest concerning duties
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Projector **4.3.** Stationary **4.4.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identified own role and responsibility within team **1.2.** communicated and co-operated with team members **1.3.** solved problems within team environment

Assessment Evidence Guide	
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency:	Nominal Duration:	Unit Code:
Apply basic IT skills	20 hours	SEIP-TEX-WVG-05-G

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to apply basic IT skills in the workplace. It specifically includes identifying IT tools, using a computer, working with word processing and spreadsheet applications, emailing and searching on the internet.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Identify and use most commonly used IT tools	**1.1.** History of information technology (IT) is identified and summarised. **1.2.** Commonly used **IT tools** are identified and described.
2. Understand use of computer	**2.1.** Basic parts of a computer are identified. **2.2.** Turning on and off technique of a computer is performed. **2.3.** Working environment, functions and features of operating system is interpreted. **2.4.** Simple trouble-shooting techniques are applied.
3. Work with word processing application	**3.1.** Word processing application appropriate to perform activity is operated. **3.2.** Basic typing technique to document is applied. **3.3.** Word processing techniques to document are employed. **3.4.** Personal CV writing using suitable word processing techniques is practiced. **3.5.** Saving and retrieving technique of a document is used.
4. Work with spreadsheets	**4.1.** Spreadsheet working environment, functions and features are identified and interpreted. **4.2.** Data entry on spreadsheet appropriate to perform activity is performed. **4.3.** **Data manipulation techniques** to spreadsheet document are applied. **4.4.** Spreadsheet document is created and saved.
5. Access email and search the internet	**5.1.** Use of email account in online environment is explained. **5.2.** Writing and sending of workplace emails is completed. **5.3.** Different **browsers** to work online are identified and selected. **5.4.** Browse different web portals and apply proper search techniques.

Range of Variables

Variable	Range *(may include but not limited to)*
1. IT tools	**1.1.** Cell phone **1.2.** Tablets **1.3.** Computers, laptops, notebooks **1.4.** Internet **1.5.** Software **1.6.** Satellite
2. Data manipulation techniques	**2.1.** Sum **2.2.** Average **2.3.** Count **2.4.** Max **2.5.** Min **2.6.** If **2.7.** Sort **2.8.** Fill **2.9.** Header **2.10.** Footer **2.11.** Print
3. Browsers	**3.1.** Internet Explorer **3.2.** Firefox **3.3.** Google Chrome **3.4.** Opera **3.5.** Safari **3.6.** Omni Web **3.7.** Microsoft Edge

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** IT and IT tools **1.2.** Computer trouble-shooting **1.3.** Techniques to access internet
2. Underpinning skills	**1.1.** Perform simple trouble-shooting with computer **1.2.** Carry out typing on word processing software **1.3.** Enter data using spreadsheet **1.4.** Open email account and use it for different purposes

Curricula Content Guide	
3. Underpinning attitudes	**2.1.** Active on teamwork **2.2.** Prompt in carrying out activities **2.3.** Tidy and punctual **2.4.** Respectful of peers, subordinates and seniors in the workplace **2.5.** Sincere and honest concerning duties
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** IT tools **4.3.** Computer/laptop/notebook **4.4.** Software **4.5.** Internet **4.6.** Projector **4.7.** Stationary **4.8.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identified commonly used IT tools **1.2.** performed simple trouble-shooting with computer **1.3.** carried out typing on word processing software, saved and retrieved documents **1.4.** completed data entry with spreadsheet **1.5.** used email account for different online purposes
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

B: Sector-specific (common) Competencies

Unit of Competency: Explore the history of Textile Sector	**Nominal Duration:** 16 hours	**Unit Code:** SEIP-TEX-WVG-01-S

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to understand the Textile Sector in Bangladesh. It specifically includes examining the history of textile sector in Bangladesh, identifying the main industries within the textile sector, and identifying prime local and export markets.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Examine the background of textile sector	**1.1.** The historical background of textile sector is examined and described. **1.2.** **Steps of weaving process** are clearly identified. **1.3.** Backward and forward linkages are identified.
2. Identify main industries within textile sector	**2.1.** **Main industries** of the textile sector are identified. **2.2.** Importance of textile sector and main industries is explored and analysed.
3. Identify prime local and export markets	**3.1.** Prime **local markets** and **export markets** are identified. **3.2.** Local and export markets are listed.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Steps of weaving process	**1.1.** Spinning **1.2.** Weaving **1.3.** Dying **1.4.** Printing **1.5.** Finishing
2. Local markets	**2.1.** Processing mills **2.2.** Processing factories **2.3.** Wholesale markets **2.4.** Wholesale retailers
3. Export markets	**3.1.** Europe **3.2.** United States **3.3.** Brazil

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** History of textile sector **1.2.** Steps of weaving process **1.3.** Prime local and export markets
2. Underpinning skills	**2.1.** Describe history of textile sector **2.2.** Identify steps of weaving process **2.3.** Identify prime local and export markets
3. Underpinning attitudes	**3.1.** Eager to learn **3.2.** Considerate of personal grooming **3.3.** Patient and attentive **3.4.** Active on team work **3.5.** Tidy and punctual **3.6.** Sincere and honest concerning duties
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Map/global **4.3.** Stationary **4.4.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** explained history of Textile industry in Bangladesh, current described the history of textile sector **1.2.** identified basic steps of textile processing **1.3.** identified prime local and export markets
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency:	Nominal Duration:	Unit Code:
Use hand and power tools	16 hours	SEIP-TEX-WVG-02-S

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to use hand and power tools in the workplace. It specifically includes identifying and inspecting hand and power tools for usability, using and operating tools properly and safely, and cleaning and maintaining hand and power tools after use.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Identify and inspect hand and power tools	**1.1.** Appropriate hand and power tools are identified. **1.2.** Application of hand and power tools is recognised. **1.3.** Usability of hand and power tools is checked and verified.
2. Use hand tools properly and safely	**2.1.** Appropriate **hand tools** are selected. **2.2.** Safety precautions are ensured before using hand tools. **2.3.** Unsafe or faulty hand tools are identified and marked for repair. **2.4.** **Measuring tools** are checked and calibrated before use. **2.5.** Use hand tools properly and safely to perform work activity.
3. Operate power tools properly and safely	**3.1.** Appropriate **power tools** are selected. **3.2.** Power supply outlet and electrical cord are inspected and confirmed safe for use in accordance with established workplace safety requirements. **3.3.** **Safety precautions** are ensured before using power tools in accordance with manufacturer's operating specification. **3.4.** Proper sequence of operation applied for using power tools. **3.5.** Unsafe or faulty power tools are identified and marked for repair. **3.6.** Operate power tools properly and safely to perform work activity.
4. Clean and maintain hand and power tools	**4.1.** Dust and foreign matter is removed from hand and power tools in accordance to workplace standards. **4.2.** Condition of hand and power tools is checked after use and reported. **4.3.** Appropriate lubricant is applied after use and prior to storage. **4.4.** Measuring tools are checked and calibrated after use. **4.5.** Defective hand and power tools are inspected and repaired or replaced. **4.6.** Hand and power tools are stored and secured in accordance with workplace requirements.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Hand tools	**1.1.** Hammer **1.2.** Files **1.3.** Punches **1.4.** Wrenches **1.5.** Pliers **1.6.** Screwdrivers **1.7.** Hacksaw **1.8.** Spanners **1.9.** Wire cutters **1.10.** Hand tap **1.11.** Measuring tapes
2. Power tools	**2.1.** Drills **2.2.** Cutting **2.3.** Glue gun **2.4.** Threading machine
3. Measuring tools	**3.1.** Measuring tape **3.2.** Hose level **3.3.** Water level **3.4.** Calliper **3.5.** Steel rule **3.6.** Protractor **3.7.** Tri-square
4. Safety precautions	**4.1.** Use of appropriate PPE **4.2.** Proper hand, feet and eye coordination **4.3.** Safe condition of electrical outlets, cords and lamps **4.4.** Working environment **4.5.** Safe operating condition of hand and power tools **4.6.** Awareness to OHS requirements

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Information on types of hand and power tools, their functions and use **1.2.** Procedures for safely using hand and power tools

Curricula Content Guide	
2. Underpinning skills	**2.1.** Identify hand, power and measuring tools **2.2.** Follow safety precautions when using hand, power and measuring tools **2.3.** Operate power tools correctly and safely in accordance to manufacturer's operating specification **2.4.** Clean and maintain hand and power tools after use **2.5.** Apply appropriate lubricant on hand and power tools after using and prior to storing
3. Underpinning attitudes	**3.1.** Commitment to occupational health and safety **3.2.** Promptness in carrying out activities **3.3.** Sincere and honest to duties **3.4.** Environmental concerns **3.5.** Tidiness and timeliness **3.6.** Concerned for proper use of tools
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Personal protective equipment (PPE) **4.3.** Hand and power tools **4.4.** Measuring tools **4.5.** Projector **4.6.** Stationary **4.7.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identified and selected appropriate hand and power for work to be performed **1.2.** identified and used measuring tools appropriate to work activity **1.3.** followed safety precautions when using hand and power tools **1.4.** operated power tools safely and pursuant to manufacturer's operating specification **1.5.** performed cleaning and maintenance of hand and power tools after use and prior to storing
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio

Assessment Evidence Guide	
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency: Read and interpret sketches and drawings	Nominal Duration: 16 hours	Unit Code: SEIP-TEX-WVG-03-S

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to read and interpret sketches and drawings. It specifically includes interpreting information and specifications, and reading and interpreting sketches and drawings.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Interpret information and specifications	**1.1.** Appropriate **manuals** and **specifications** for work activity are identified and collected. **1.2.** Information and **specifications** and their importance is recognised.
2. Read and interpret sketches and drawings	**2.1.** Relevant **sketches and drawings** are identified for job requirement. **2.2.** **Signs and symbols** are identified and interpreted. **2.3.** Schedules, dimensions, drawings and specifications are correctly read and interpreted.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Manuals	**1.1.** Manufacturer's specification **1.2.** Repair **1.3.** Compliance **1.4.** Maintenance procedure **1.5.** Periodic maintenance **1.6.** Quality assurance **1.7.** Signs and symbols instruction **1.8.** Standard operating procedure
2. Specifications	**2.1.** Product **2.2.** Performance **2.3.** Method
3. Sketches and drawings	**3.1.** Technical **3.2.** Measurement **3.3.** Design
4. Signs and symbols	**4.1.** Include all signs and symbols associated with the Textile Sector

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Types of manuals used in textile sector **1.2.** Common signs and symbols **1.3.** Units of measurement **1.4.** Units of conversion **1.5.** Sketch and drawings
2. Underpinning skills	**2.1.** Identify information and specifications from manuals as required **2.2.** Read and interpret information and specifications as per job requirement **2.3.** Read and interpret sketches and drawings **2.4.** Identify signs and symbols
3. Underpinning attitudes	**3.1.** Eager to learn **3.2.** Patient and attentive **3.3.** Active on team work **3.4.** Tidy and punctual **3.5.** Concerned about proper use of computer and peripherals **3.6.** Sincere and honest concerning duties
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Computer/laptop/notebook **4.3.** Software **4.4.** Projector **4.5.** Stationary **4.6.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identified and interpreted information and specifications **1.2.** read and interpreted sketches and drawings **1.3.** identified and interpreted signs and symbols
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio

Assessment Evidence Guide	
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

C: Occupation-specific (core) Competencies

Unit of Competency: Identify the basics of weaving technology	**Nominal Duration:** 40 hours	**Unit Code:** SEIP-TEX-WVG-01-O

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to identify and understand the basics of weaving technology. It specifically includes defining weaving technology, identifying tools and equipment, and classifying raw materials.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Define weaving technology	**1.1.** Weaving technology is accurately defined and illustrated. **1.2.** Different types of **weaves** and **materials** are identified, compared and contrasted. **1.3.** Role and responsibilities of weaving loom operate are identified and explained. **1.4.** Weaving floor layout is described.
2. Identify tools and equipment	**2.1.** Appropriate **tools and equipment** are identified as per job requirement. **2.2.** **Looms** and other machinery are identified and labelled according to classification.
3. Classify raw materials	**3.1.** Raw material required to performing weaving is identified and selected. **3.2.** Different types of **yarns** are identified, classified and distinguished by key characteristics. **3.3.** Different types of **sizing materials** for warp yarns are identified.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Weaves	**1.1.** Plain **1.2.** Twill **1.3.** Satin
2. Materials	**2.1.** Yarn **2.2.** Fabric

Variable	Range *(may include but not limited to)*
3. Tools and equipment	**3.1.** Pocket tape **3.2.** Adjustable wrench **3.3.** Files (flat, round, half-round) **3.4.** Hacksaw **3.5.** Hammer **3.6.** Pliers **3.7.** Screwdriver **3.8.** Trolley
4. Looms	**4.1.** Hand **4.2.** Semi-automatic **4.3.** Power **4.4.** Air jet **4.5.** Rapier **4.6.** Projectile **4.7.** Water jet
5. Yarn	**5.1.** Cotton **5.2.** Polyester **5.3.** Cotton/polyester **5.4.** Nylon **5.5.** Acrylic **5.6.** Polypropylene **5.7.** Wool **5.8.** Silk
6. Sizing materials	**6.1.** Starch **6.2.** Fine **6.3.** Guar **6.4.** Gum alginate

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Role of weaving technology in the textile sector **1.2.** Tools, equipment and machinery used in weaving **1.3.** Standard floor layout for weaving operations **1.4.** Types of raw materials used in weaving
2. Underpinning skills	**2.1.** Identify and distinguish different types of weaves and yarns **2.2.** Identify different types of looms **2.3.** Identify raw materials and weaving accessories

Curricula Content Guide	
3. Underpinning attitudes	**3.1.** Eager to learn **3.2.** Patient and attentive **3.3.** Active on team work **3.4.** Tidy and punctual **3.5.** Sincere and honest concerning duties **3.6.** Concerned for the proper use of tools
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Tools and equipment **4.3.** Looms **4.4.** Raw materials **4.5.** Weaves **4.6.** Yarns **4.7.** Projector **4.8.** Stationary **4.9.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** Identified different types of raw materials, weaves and yarns **1.2.** Distinguished and classified raw materials **1.3.** Identified and described operation of different looms
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency: Carry out preparation for weaving operation	Nominal Duration: 48 hours	Unit Code: SEIP-TEX-WVG-02-O

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to prepare for weaving operation. It specifically includes performing winding, warping and sizing tasks.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Perform winding task	**1.1.** **Materials**, **tools** and equipment is identified and selected according to job requirement. **1.2.** Yarn from ring bobbins are correctly wound to form packages.
2. Perform warping task	**2.1.** **Lubricant** is checked and levels maintained as per manufacturer's guidelines **2.2.** Required number of yarn from a creel of single-end package is transferred to a **beam**.
3. Perform sizing task	**3.1.** Size material is prepared and applied on to the warp sheet. **3.2.** Hairiness and flexibility of yarn is checked and maintained. **3.3.** Yarn tension is checked and adjusted as required.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Materials	**1.1.** Cone **1.2.** Ring bobbins
2. Tools	**2.1.** Pocket tape **2.2.** Wire stripper **2.3.** Adjustable wrench **2.4.** Hammer (ballpeen, claw) **2.5.** Pliers (combination, cutting, diagonal, long nose) **2.6.** Screwdriver (star, negative, positive)
3. Lubricants	**3.1.** Oil **3.2.** Grease
4. Beam	**4.1.** Warp **4.2.** Cloth

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Materials and tools required for weaving operation **1.2.** Winding, warping and sizing process as per standard operating procedure **1.3.** Applying size material on the warp sheet
2. Underpinning skills	**2.1.** Identify material as per job specification **2.2.** Carry out winding **2.3.** Prepare warp sheet **2.1.** Prepare and apply size material on warp sheet
3. Underpinning attitudes	**3.1** Eager to learn **3.2** Patient and attentive **3.3** Active on team work **3.4** Tidy and punctual **3.5** Sincere and honest concerning duties **3.6** Commitment to occupational health and safety **3.7** Promptness in carrying out activities **3.8** Environmental concerns **3.9** Concerned for the proper use of tools and equipment
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Tools and equipment **4.3.** Looms **4.4.** Materials **4.5.** Warp sheet **4.6.** Beam **4.7.** Projector **4.8.** Stationary **4.9.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** checked and adjusted equipment settings to meet production requirement **1.2.** checked quality of product as per standard operating procedure **1.3.** carried out winding, warping and sizing of material as per job specification

Assessment Evidence Guide	
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency: Perform shedding operation	Nominal Duration: 48 hours	Unit Code: SEIP-TEX-WVG-03-O

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to perform shedding operation. It specifically includes identifying dobby shedding, preparing for shedding operation, and performing tappet and jacquard shedding.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Identify dobby shedding	**1.1.** **Shedding mechanism** is identified and explained. **1.2.** **Main parts** of shedding mechanism are correctly identified. **1.3.** Types of dobby shedding are identified and described. **1.4.** Designs produced by dobby devices are examined.
2. Prepare for shedding	**2.1.** Work instructions are received and confirmed with supervisor. **2.2.** Appropriate **personal protective equipment (PPE)** is identified and selected. **2.3.** Hand **tools and equipment** is selected as per job requirement.
3. Perform tappet shedding	**3.1.** Selected hand tools and equipment are used properly and safely. **3.2.** **Tappet shedding** is performed as per standard operating procedure. **3.3.** Shedding device is monitored and maintained during operation. **3.4.** Report is prepared and submitted upon completion of shedding operation as per standard operating procedure.
4. Perform jacquard shedding	**4.1.** Selected hand tools and equipment are used properly and safely. **4.2.** **Jacquard shedding** is performed as per standard operating procedure. **4.3.** Shedding device is monitored and maintained during operation. **4.4.** Report is prepared and submitted upon completion of shedding operation as per standard operating procedure.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Shedding mechanism	**1.1.** Mechanical **1.2.** Electronic

Variable	Range *(may include but not limited to)*
2. Main parts	**2.1.** Tappet: **2.1.1.** Motor **2.1.2.** Motor pulley **2.1.3.** Crank shaft **2.1.4.** Gears **2.1.5.** Tappet **2.1.6.** Connecting rod **2.1.7.** Heald shaft **2.1.8.** Top arm **2.1.9.** Roller **2.1.10.** Draw knifes **2.2.** Jacquard: **2.2.1.** Motor **2.2.2.** Needles **2.2.3.** Knife **2.2.4.** Cords **2.2.5.** Comber board **2.2.6.** Hooks **2.2.7.** Grid bar **2.2.8.** Dead weight **2.2.9.** Spring board **2.2.10.** Needle board **2.2.11.** Pattern chain **2.2.12.** Pattern cylinder
3. Personal protective equipment (PPE)	**3.1.** Helmet **3.2.** Mask **3.3.** Safety glasses **3.4.** Gloves **3.5.** Safety shoes **3.6.** Hair net **3.7.** Harness
4. Tools and equipment	**4.1.** Sample cutter **4.2.** Yarn guide **4.3.** Yarn feeder **4.4.** Yarn tension meter **4.5.** Tape tensioner **4.6.** Industrial weight scales **4.7.** Fabric roller **4.8.** Machine brush

Variable	Range *(may include but not limited to)*
5. Tappet shedding	**5.1.** Positive **5.2.** Negative
6. Jacquard shedding	**6.1.** Single **6.2.** Double **6.3.** Mechanical **6.4.** Electronic

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Shedding process, mechanism and main parts **1.2.** Appropriate tools and equipment used for shedding operation **1.3.** Tappet and jacquard shedding process
2. Underpinning skills	**2.1.** Describe shedding process, mechanism and main parts **2.2.** Identify and select appropriate tools and equipment **2.3.** Carry out tappet shedding **2.4.** Carry out jacquard shedding
3. Underpinning attitudes	**3.1** Eager to learn **3.2** Patient and attentive **3.3** Active on team work **3.4** Tidy and punctual **3.5** Sincere and honest concerning duties **3.6** Commitment to occupational health and safety **3.7** Promptness in carrying out activities **3.8** Environmental concerns **3.9** Concerned for the proper use of tools and equipment
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Personal protective equipment (PPE) **4.3.** Tools and equipment **4.4.** Looms **4.5.** Tappet/Jacquard device **4.6.** Material **4.7.** Yarn **4.8.** Projector **4.9.** Stationary **4.10.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identified and described shedding process, mechanism and main parts **1.2.** identified and selected appropriate tools and equipment **1.3.** carried out tappet shedding operation **1.4.** carried out jacquard shedding operation **1.5.** monitored and maintained shedding devices **1.6.** prepared and submitted completion report accurately
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency: Perform picking operation	Nominal Duration: 48 hours	Unit Code: SEIP-TEX-WVG-04-O

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to perform picking operation. It specifically includes identifying and understanding the picking process, preparing for picking, and performing picking using a variety of machines.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Identify picking process	**1.1.** Picking process is accurately defined. **1.2.** Different techniques for picking are identified and described.
2. Prepare for picking	**1.1.** Work instructions are received and confirmed with supervisor. **1.2.** Appropriate **personal protective equipment (PPE)** is identified and selected. **1.3.** Hand tools and equipment is selected as per job requirement.
3. Perform conventional picking	**3.1.** Selected hand tools and equipment are used properly and safely. **3.2.** **Conventional picking** is carried out as per standard operating procedure. **3.3.** Conventional picking machine/device is monitored and maintained during operation.
4. Perform air jet picking	**4.1.** Selected hand tools and equipment are used properly and safely. **4.2.** Air jet picking with **yarn** is carried out as per standard operating procedure to ensure quality. **4.3.** Air jet picking machine/device is monitored and maintained during operation.
5. Perform rapier, projectile and water jet picking	**5.1.** Selected hand tools and equipment are used properly and safely. **5.2.** Rapier, projectile and water jet picking is carried out as per standard operating procedure. **5.3.** Rapier, projectile and water jet picking machine/device is monitored and maintained during operation.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Personal protective equipment (PPE)	**1.1.** Helmet **1.2.** Mask **1.3.** Safety glasses **1.4.** Gloves **1.5.** Safety shoes **1.6.** Hair net **1.7.** Harness
2. Conventional picking	**2.1.** Shuttle **2.2.** Shuttle less
3. Yarn	**3.1.** Warp **3.2.** Wept

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Picking process and different techniques **1.2.** Difference between shuttle and shuttle less picking **1.3.** Appropriate tools and equipment used for picking **1.4.** Technique for using variety of picking machines/devices
2. Underpinning skills	**2.1.** Describe picking process and techniques **2.2.** Identify and select appropriate tools and equipment **2.3.** Carry out picking operation using different techniques
3. Underpinning attitudes	**3.1** Eager to learn **3.2** Patient and attentive **3.3** Active on team work **3.4** Tidy and punctual **3.5** Sincere and honest concerning duties **3.6** Commitment to occupational health and safety **3.7** Promptness in carrying out activities **3.8** Environmental concerns **3.9** Concerned for the proper use of tools and equipment

Curricula Content Guide	
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Personal protective equipment (PPE) **4.3.** Tools and equipment **4.4.** Looms **4.5.** Tappet/Jacquard device **4.6.** Material **4.7.** Yarn **4.8.** Projector **4.9.** Stationary **4.10.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identified and described picking process and techniques **1.2.** identified and selected appropriate tools and equipment **1.3.** carried out picking operation using different techniques **1.4.** monitored and maintained picking machines/devices
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency: Perform beating operation	Nominal Duration: 48 hours	Unit Code: SEIP-TEX-WVG-05-O

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to perform beating operation. It specifically includes analysing different beating mechanisms and motions, preparing for different types of beating operations, and ensuring quality production.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Analyse different beating mechanisms	**1.1.** Different beating **motions** are identified, compared and distinguished **1.2.** Primary, secondary and tertiary **mechanisms** are identified and accurately defined. **1.3.** Use of different motions in different types of **looms** are examined.
2. Prepare for beating operation	**2.1.** Work instructions are received and confirmed with supervisor. **2.2.** Appropriate **personal protective equipment (PPE)** is identified and selected. **2.3.** Hand tools and equipment is selected as per job requirement.
3. Perform cam and crank beat up	**3.1.** Selected hand tools and equipment are used properly and safely. **3.2.** Cam and crank beat up is carried out as per standard operating procedure **3.3.** Mechanism is monitored and maintained during operation to ensure quality production.
4. Perform beating system with conventional loom	**4.1.** Selected hand tools and equipment are used properly and safely. **4.2.** Beating system using conventional loom is carried out as per standard operating procedure **4.3.** Mechanism is monitored and maintained during operation to ensure quality production.
5. Perform beating system with modern loom	**5.1.** Selected hand tools and equipment are used properly and safely. **5.2.** Beating system using modern loom is carried out as per standard operating procedure **5.3.** Mechanism is monitored and maintained during operation to ensure quality production.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Motions	**1.1.** Primary **1.2.** Secondary **1.3.** Tertiary
2. Mechanisms	**2.1.** Shedding **2.2.** Picking **2.3.** Beat-up **2.4.** Take-up **2.5.** Let-off **2.6.** Weft stop **2.7.** Warp stop **2.8.** Warp protector **2.9.** Weft replenishment **2.10.** Cutter **2.11.** Temples **2.12.** Brake **2.13.** Selvedge
3. Loom	**3.1.** Air jet **3.2.** Rapier **3.3.** Water jet
4. Personal protective equipment (PPE)	**4.1.** Helmet **4.2.** Mask **4.3.** Safety glasses **4.4.** Gloves **4.5.** Safety shoes **4.6.** Harness **4.7.** Hair net

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Three main types of motions **1.2.** Different beating mechanisms **1.3.** Types of loom **1.4.** Cam and crank beating process **1.5.** Conventional and modern loom beating process

Curricula Content Guide	
2. Underpinning skills	**2.1.** Identify and describe different motions and mechanisms **2.2.** Identify and select appropriate tools and equipment **2.3.** Select appropriate motion and mechanism **2.4.** Prepare for beating operation **2.5.** Perform beating system with conventional and modern loom
3. Underpinning attitudes	**3.1** Eager to learn **3.2** Patient and attentive **3.3** Active on team work **3.4** Tidy and punctual **3.5** Sincere and honest concerning duties **3.6** Commitment to occupational health and safety **3.7** Promptness in carrying out activities **3.8** Environmental concerns **3.9** Concerned for the proper use of tools and equipment
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Personal protective equipment (PPE) **4.3.** Tools and equipment **4.4.** Looms **4.5.** Mechanisms **4.6.** Material **4.7.** Yarn **4.8.** Projector **4.9.** Stationary **4.10.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identify and describe the different motions and mechanisms **1.2.** identify and select appropriate tools and equipment **1.3.** select appropriate mechanism **1.4.** prepare loom for beating operation **1.5.** carry out cam and crank beat up **1.6.** perform beating with conventional and modern loom **1.7.** monitor and maintain mechanism

Assessment Evidence Guide	
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.

Unit of Competency: Identify weaving accessories and fabric faults	Nominal Duration: 32 hours	Unit Code: SEIP-TEX-WVG-05-O

Unit Descriptor:

This unit covers the skills, knowledge and attitudes required to identify weaving accessories and fabric faults. It specifically includes identifying weaving accessories to be implemented, identifying fabric faults, and testing the quality of the fabric.

Elements and Performance Criteria

Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables.

Elements of Competency	Performance Criteria
1. Identify weaving accessories	**1.1.** **Weaving accessories** are identified and selected as per job requirement. **1.2.** Selected weaving accessories are implemented.
2. Identify fabric faults	**2.1.** **Fabric faults** are identified and categorised according to severity levels and possible causes are determined. **2.2.** Identified faults are reported to appropriate authority.
3. Test the quality of the fabric	**3.1.** Fabric quality is identified and established. **3.2.** Fibre and yarn properties are tested. **3.3.** Test results are reported to appropriate authority.

Range of Variables

Variable	Range *(may include but not limited to)*
1. Weaving accessories	**1.1.** Shuttle **1.2.** Shuttle box **1.3.** Picker **1.4.** Beam (cloth, warp) **1.5.** Front rest **1.6.** Lease rod **1.7.** Slay **1.8.** Reed **1.9.** Treadle **1.10.** Temple **1.11.** Prim **1.12.** Back rest **1.13.** Dropper

Variable	Range *(may include but not limited to)*
2. Fabric faults	**2.1.** Broken ends **2.2.** Broken picks **2.3.** Floats **2.4.** Weft curling **2.5.** Slugs **2.6.** Stitching **2.7.** Irregular pick density **2.8.** Hairy cloth **2.9.** Holes **2.10.** Oil spot **2.11.** Miss-picking **2.12.** Stop mark **2.13.** Starting mark

Curricula Content Guide	
1. Underpinning knowledge	**1.1.** Types of accessories required for weaving **1.2.** Different faults generated during weaving process
2. Underpinning skills	**2.1.** Identify and select weaving accessories **2.2.** Identify fibre faults
3. Underpinning attitudes	**3.1.** Eager to learn **3.2.** Patient and attentive **3.3.** Active on team work **3.4.** Tidy and punctual **3.5.** Sincere and honest concerning duties **3.6.** Commitment to occupational health and safety **3.7.** Promptness in carrying out activities **3.8.** Environmental concerns **3.9.** Concerned for the proper use of tools and equipment
4. Resource implications	The following resources must be provided: **4.1.** Workplace (simulated or actual) **4.2.** Product specification **4.3.** Job sheet **4.4.** Accessories **4.5.** Projector **4.6.** Stationary **4.7.** Learning manual

Assessment Evidence Guide	
1. Critical aspects of competency	Assessment must evidence that the candidate: **1.1.** identified and selected appropriate weaving accessories **1.2.** identified and categorised fibre faults properly **1.3.** tested quality of fibre correctly as per standard operating procedure
2. Methods of assessment	Methods of assessment may include but is not limited to: **2.1.** written test **2.2.** oral test **2.3.** observation **2.4.** demonstration **2.5.** portfolio
3. Context of assessment	**3.1.** Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. **3.2.** Assessment must be done by a suitably qualified/certified assessor.