



Competency Standards

For

Knit Sewing Machine Operation

(RMG & Textile Industry Skills Council)

Level: 2

Competency Standard Code: RTCS0006L2V1

National Skills Development Authority
Prime Minister's Office, Bangladesh

Table of Contents

Introduction	3
Overview	4
NTVQF with Job Classifications	5
NTVQF Level Descriptors	6
List of Abbreviations	7
Approval of Competency Standard	8
Unit of competencies at a glance	9
Units and elements at a glance	10
Generic Competencies.....	13
GU002L2V1: Apply Occupational Safety and Health (Osh) Practices in the Workplace	14
GU003L2V1: Perform Computations Using Basic Mathematical Concepts.....	17
GU003L2V1: Carry Out Workplace Interaction	20
GU004L2V1: Work in a Self-Directed Team.....	23
Sector Specific Competencies	26
SURT002L3V1: Perform Measurement and Calculations	27
SURT002L2V1: Apply Quality Procedures.....	30
Occupation Specific Competencies.....	33
OUSMO0001L2V1: Interpret Knit Fabrics and Garments.....	34
OUSMO0002L2V1: Prepare for Sewing Operation	36
OUSMO0003L2V1: Carry Out Machine Performance	40
OUSMO0004L2V1: Operate Industrial Sewing Machine.....	42
OUSMO0005L2V1: Make T-Shirts and Polo-Shirts.....	46

Introduction

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

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

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

This competency standard is developed to improve skills, knowledge & attitudes in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills, knowledge & attitudes are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document. This competency standard was developed by Skills for Employment Investment Program (SEIP). Later for certain requirement change from industry it reviewed by RMG & Textile Industry Skills Councils (RTISC) & validated by NSDA.

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

Overview

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

The purpose of a competency standards is to:

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

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

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

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

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

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

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

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.

NTVQF with Job Classifications

NTVQF LEVELS	EDUCATION SECTORS			Job Classification
	Pre-Vocation Education	Vocational Education	Technical Education	
NTVQF 6			Diploma in engineering or equivalent	Middle Level Manager /Sub Assistant Engr. etc.
NTVQF 5		National Skill Certificate 5 (NSC 5)		Highly Skilled Worker / Supervisor
NTVQF 4		National Skill Certificate 4 (NSC 4)		Skilled Worker
NTVQF 3		National Skill Certificate 3 (NSC 3)		Semi-Skilled Worker
NTVQF 2		National Skill Certificate 2 (NSC 2)		Basic Skilled Worker
NTVQF 1		National Skill Certificate 1 (NSC 1)		Basic Worker
Pre-Voc 2	National Pre-Vocation Certificate 2 (NPVC 2)			Pre-Vocation Trainee
Pre-Voc 1	National Pre-Vocation Certificate 1 (NPVC 1)			Pre-Vocation Trainee

NTVQF Level Descriptors

NTVQF Level	Knowledge	Skill	Responsibility	Job Class.
6	<ul style="list-style-type: none"> Comprehensive actual and theoretical knowledge within a specific study area with an awareness of the limits of that knowledge 	<ul style="list-style-type: none"> Specialised and restricted range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems 	<ul style="list-style-type: none"> 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 Engr. etc.
5	<ul style="list-style-type: none"> Very broad knowledge of the underlying, concepts, principles, and processes in a specific study area 	<ul style="list-style-type: none"> Very broad range of cognitive and practical skills required to generate solutions to specific problems in one or more study areas. 	<ul style="list-style-type: none"> Take overall responsibility for completion of tasks in work or study Apply past experiences in solving similar problems 	Highly Skilled Worker / Supervisor
4	<ul style="list-style-type: none"> Broad knowledge of the underlying, concepts, principles, and processes in a specific study area 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Take responsibility, within reason, for completion of tasks in work or study Apply past experiences in solving similar problems 	Skilled Worker
3	<ul style="list-style-type: none"> Moderately broad knowledge in a specific study area. 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Work or study under supervision with some autonomy 	Semi-Skilled Worker
2	<ul style="list-style-type: none"> Basic underpinning knowledge in a specific study area. 	<ul style="list-style-type: none"> Basic skills required to carry out simple tasks 	<ul style="list-style-type: none"> Work or study under indirect supervision in a structured context 	Basic Skilled Worker
1	<ul style="list-style-type: none"> Elementary understanding of the underpinning knowledge in a specific study area. 	<ul style="list-style-type: none"> Limited range of skills required to carry out simple tasks 	<ul style="list-style-type: none"> Work or study under direct supervision in a structured context 	Basic Worker
Pre-Voc 2	<ul style="list-style-type: none"> Limited general knowledge 	<ul style="list-style-type: none"> Very limited range of skills and use of tools required to carry out simple tasks 	<ul style="list-style-type: none"> Work or study under direct supervision in a well-defined, structured context. 	Pre-Vocation Trainee
Pre-Voc 1	<ul style="list-style-type: none"> Extremely limited general knowledge 	<ul style="list-style-type: none"> Minimal range of skills required to carry out simple tasks 	<ul style="list-style-type: none"> Simple work or study exercises, under direct supervision in a clear, well defined structured context 	Pre-Vocation Trainee

List of Abbreviations

NSDA- National Skills Development Authority

NTVQF – National Technical and Vocational Qualifications Framework

SEIP – Skills for Employment Investment Program

ISC – Industry Skills Council

NPVC – National Pre-Vocation Certificate

PPP -- Public Private Partnership

SCVC – Standards and Curriculum Validation Committee

TVET – Technical Vocational Education and Training

CS – Competency Standard

UoC – Unit of Competency

STP – Skills Training Provider

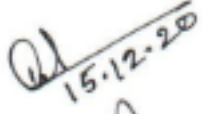
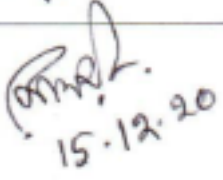
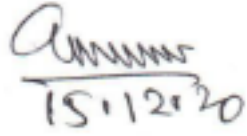
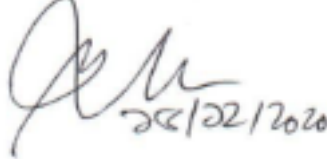
OSH – Occupational Safety and Health


PPE – Personal Protective Equipment

SOP – Standard Operating Procedures

Approval of Competency Standard

Members of the Approval Committee:

Member	Signature
Dulal Krishna Saha Executive Chairman (Secretary) National Skills Development Authority (NSDA)	 15.12.20
Mohammad Rezaul Karim Member (Skills Standard & Certification) Additional Secretary National Skills Development Authority (NSDA)	 15.12.20
Md. Nurul Amin Member (Admin & Finance) Joint Secretary National Skills Development Authority (NSDA)	 15.12.20
Alif Rudaba Member (Planning & Research) and Member (Coordination & Evaluation) Joint Secretary National Skills Development Authority (NSDA)	 20/12/20


15.12.20

Dulal Krishna Saha
Executive Chairman (Secretary)
National Skills Development Authority (NSDA)

Date:


Engr. B. M. Shariful Islam
Deputy Director (Skills Standard)
Principal
National Skills Development Authority (NSDA)
Minister's Office, Dhaka

Knit Sewing Machine Operation, Level-2

Unit of competencies at a glance

SL No	Code	Units of competency	UOC Level	Nominal Hours
Generic Competencies				60
1	GU002L2V1	Apply Occupational Safety and Health (OSH) Practices in the Workplace	2	15
2	GU001L2V1	Perform Computations Using Basic Mathematical Concepts	2	15
3	GU003L2V1	Carry out Workplace Interaction	2	15
4	GU004L2V1	Work in a Self-Directed Team	3	15
Sector Specific Competencies				35
5	SURT002L3V1	Perform Measurements and Calculations	3	15
6	SURT003L3V1	Apply Quality Procedures	3	20
Occupation Specific Competencies				265
7	OUSMO0001L2V1	Interpret Knit Fabrics and Garments	2	10
8	OUSMO0002L2V1	Prepare for Sewing Operation	2	40
9	OUSMO0003L2V1	Carry out Machine Performance	2	25
10	OUSMO0004L2V1	Operate Industrial Sewing Machine	2	100
11	OUSMO0005L2V1	Make T-shirts and Polo-Shirts	2	90
Total Duration				360

Knit Sewing Machine Operation, Level-2

Units and elements at a glance

Generic competencies

Code	Unit of competency	Elements of competency	Nominal Hours
GU002L2V1	Apply Occupational Safety and Health (OSH) Practices in the Workplace	<ol style="list-style-type: none">1. Identify OHS policies and procedures2. Apply personal health and safety3. Report hazards and risks4. Respond to emergencies	15
GU001L2V1	Perform Computations Using Basic Mathematical Concepts	<ol style="list-style-type: none">1. Identify calculation requirements in the workplace2. Select appropriate mathematical methods for the calculation3. Use basic mathematical formula to perform calculation	15
GU003L2V1	Carry out Workplace Interaction	<ol style="list-style-type: none">1. Carry out instructions verbally2. Read and Understand Workplace Documents3. Attend meetings and discussions in the workplace	15
GU004L2V1	Work in a Self-Directed Team	<ol style="list-style-type: none">1. Identify team goals and processes2. Communicate and cooperate with team members3. Work as a team member4. Solve problems as a team member	15

Sector specific competencies

Code	Unit of competency	Elements of competency	Nominal Hours
SURT002L3V1	Perform Measurements and Calculations	<ol style="list-style-type: none">1. Identify and check measuring instruments2. Carry out measurements3. Interpret simple calculations4. Maintain measuring instruments	15
SURT003L3V1	Apply Quality Procedures	<ol style="list-style-type: none">1. Identify quality procedures2. Follow quality procedures3. Maintain standard procedures	20

Occupation specific Competencies

Code	Unit of competency	Elements of competency	Nominal Hours
OUSMO0001L2V1	Interpret Knit Fabrics and Garments	<ol style="list-style-type: none"> 1. Interpret knit fabrics 2. Interpret knit garments 3. Interpret handling procedures of knit fabric 	10
OUSMO0002L2V1	Prepare for Sewing Operation	<ol style="list-style-type: none"> 1. Identify pattern and garments parts 2. Identify number and bundle of garments parts 3. Identify garments accessories 4. Set up machine 	40
OUSMO0003L2V1	Carry Out Machine Performance	<ol style="list-style-type: none"> 1. Apply the attachments sewing machine 2. Perform sewing machine maintenance 	25
OUSMO0004L2V1	Operate Industrial Sewing Machine	<ol style="list-style-type: none"> 1. Follow safety procedure at workplace 2. Operate single needle machine 3. Operate over lock machine 4. Operate flat lock machine 5. Operate button hole machine 6. Operate button attach machine 7. Store tools and clean the workplace 	100
OUSMO0005L2V1	Make T-shirts and Polo-Shirts	<ol style="list-style-type: none"> 1. Follow safety procedure at workplace 2. Identify process of T-shirts and polo shirts. 3. Perform stitching operation for T-shirts and Polo Shirts 4. Check stitch Quality of T-shirt, polo shirt 5. Store tools and clean the workplace 	90

Generic Competencies

Unit Code and Title	GU002L2V1: Apply Occupational Safety and Health (Osh) Practices in the Workplace
Nominal Hours	15 Hours
Unit descriptor	This unit covers the knowledge, skills and attitude required to apply OSH in the workplace. This also covers identifying OHS policies and procedures, Applying personal health and safety, reporting hazards and risks & Responding to emergencies.
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables Training Components
1. Identify OHS policies and procedures	1.1. <u>OHS policies</u> and safe operating procedures are read and understood. 1.2. Safety signs and symbols are identified and followed 1.3. Emergency response, evacuation procedures and other contingency measures are determined.
2. Apply personal health and safety	1.1 OHS policies and procedures are practiced & applied. 1.2 <u>Personal Protective Equipment (PPE)</u> is selected and used 1.3 Personal hygiene is maintained
3. Report hazards and risks	2.1 <u>Hazards and risks</u> are identified, assessed and controlled. 2.2 Incidents arising from hazards and risks are reported to authority 2.3 Corrective actions are implemented to correct unsafe Conditions in the workplace
4. Respond to emergencies	3.1 Alarms and warning devices are responded 3.2 <u>Emergency response plans and procedures</u> are implemented 3.3 First aid procedure is applied during emergency situations
Range of Variables	
Variables	Range (may include but not limited to):
1. OHS policies	1.1 International OHS requirements 1.2 Bangladesh standards for OHS Building Code 1.3 Fire Safety Rules and Regulations
2. Personal protective equipment (PPE)	2.1 Apron 2.2 Gas Mask 2.3 Gloves 2.4 Safety shoes

	<ul style="list-style-type: none"> 2.5 Face mask 2.6 Goggles 2.7 Ear plugs 2.8 Scarf
3. Hazards and risks	<ul style="list-style-type: none"> 3.1 Chemical hazards. 3.2 Biological hazards. 3.3 Physical Hazards. 3.4 Machine hazards. 3.5 Materials hazards. 3.6 Tools and Equipment hazards
4. Emergency response plans and procedures	<ul style="list-style-type: none"> 4.1. Firefighting procedures 4.2. Earthquake response procedures 4.3. Evacuation procedures 4.4. Medical and first aid
<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>	
1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 applied ohs policies and procedures 1.2 selected and used personal protective equipment 1.3 reported incidents arising from hazards and risks to authority 1.4 implemented emergency response plans and procedures 1.5 applied basic first aid procedure
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 OHS workplace policies and procedures. 2.2 Work safety procedures. 2.3 Safety signs and symbols 2.4 Emergency procedures. 2.5 Earthquake response. 2.6 Explosion response. 2.7 Accident response. 2.8 Types of hazard 2.9 PPE types and uses. 2.10 Personal hygiene practices. 2.11 OHS awareness.
3. Underpinning skill	<ul style="list-style-type: none"> 3.1 Interpreting OHS policies and procedures 3.2 Interpreting personal work safety practices 3.3 Reporting hazards and risks 3.4 Interpreting to emergency procedures 3.5 Implementing technique of corrective action 3.6 Using of first ads.
4. Required attitude	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety

	<ul style="list-style-type: none"> 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 4.6 Communication with peers and seniors in workplace
5. Resource implication	<ul style="list-style-type: none"> 5.1 Workplace (simulated or actual) 5.2 PPEs 5.3 Firefighting equipment 5.4 Emergency response manual 5.5 First aid kits
6. Methods of assessment	<ul style="list-style-type: none"> 6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio
7. Context of assessment	<ul style="list-style-type: none"> 7.1. Competency assessment must be done in a NSDA accredited assessment centre 7.2. Assessment should be done by an NSDA certified/nominated assessor

Accreditation Requirements

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

Unit Code and Title	GU003L2V1: Perform Computations Using Basic Mathematical Concepts
Nominal Hours	15 Hours
Unit Descriptor	This unit of competency requires the knowledge, skills and attitude to perform computations using basic mathematical concepts in the workplace. It specifically includes the tasks of identifying calculation requirements in the workplace, selecting appropriate mathematical method/concept for the calculation and using appropriate instruments tools to perform calculation.
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables Training Components
1. Identify calculation requirements in the workplace	1.1 Job requirements are identified 1.2 <u>Measurements</u> are selected in accordance with job requirement 1.3 Calculation requirements are identified from <u>workplace information</u>
2. Select appropriate mathematical methods for the calculation.	2.1 Mathematical methods are identified 2.2 <u>Appropriate method</u> is selected to carry out the calculation requirements 2.3 Tolerance and clearance limits are identified and adjusted according to the job requirements
3. Use tool/instrument to perform calculations	3.1 Work instructions are confirmed and applied to the job in hand 3.2 Materials to be measured are identified as per job specification 3.3 Appropriate <u>tool/ instrument</u> are selected based on materials to be measured
Range of Variables	
Variable	Range (may include but not limited to)
1. Measurements	1.1 Length 1.2 Width 1.3 Weight 1.4 Tolerance
2. workplace information	2.1 Job Order 2.2 Design 2.3 Working drawing 2.4 Verbal instructions 2.5 Written Instruction
3. Appropriate method	3.1 Addition 3.2 Subtraction

	<ul style="list-style-type: none"> 3.3 Division 3.4 Multiplication 3.5 Conversion 3.6 Percentage and ratio calculation
4. Tool/ Instrument	<ul style="list-style-type: none"> 4.1 Calculator 4.2 Scale 4.3 Measuring tape 4.4 Marker
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 identified calculation requirements from workplace information 1.2 selected appropriate method to carry out the calculation requirements 1.3 selected measurements 1.4 selected appropriate methods 1.5 used tool/instrument 1.6 added numbers 1.7 subtracted numbers 1.8 multiplied numbers. 1.9 divided numbers. 1.10 completed calculations using appropriate tools/instruments
2. Underpinning Knowledge	<ul style="list-style-type: none"> 2.1. Numerical concept 2.2. Basic mathematical methods such as addition, subtraction, multiplication and division and percentage. 2.3. Mathematical language, symbols and terminology. 2.4. Measuring units
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1 Interpret numerical concept 3.2 Interpret mathematical methods such as addition, subtraction, multiplication and division and percentage. 3.3 Interpret mathematical language, symbols and terminology. 3.4 Interpret measuring units
4. Underpinning Attitudes	<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 4.6. Communication with peers and seniors in workplace
5. Resource Implications	<ul style="list-style-type: none"> 5.1. Work place Procedure 5.2. Materials relevant to the proposed activity 5.3. All tools, equipment, material and documentation required. 5.4. Relevant specifications or work instructions

6. Methods of Assessment	6.1. Written Test 6.2. Demonstration 6.3. Oral Questioning 6.4. Portfolio
7. Context of Assessment	7.1. Competency assessment must be done in a NSDA accredited assessment center 7.2. Assessment should be done by an NSDA certified/nominated assessor

Accreditation Requirements

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

Unit Code and Title	GU003L2V1: Carry Out Workplace Interaction
Nominal Hours	15 Hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to carry out workplace interaction. It specifically includes the tasks of obtaining instructions verbally, translating information/instruction in writing, transmitting directions by the use of verbal and written forms of communication and attending meetings and discussions in the workplace.
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables Training Components
1. Carry out instructions verbally	1.1 <u>Instructions</u> are obtained verbally 1.2 Questions are asked to clarify understanding or gain more information. 1.3 Information/instruction is recorded.
2. Read and Understand Workplace Documents	2.1 Workplace documents are interpreted as per standard. 2.2 Assistance is taken to aid comprehension when required from peers/supervisors 2.3 Visual information/ symbols/signage's are understood and followed 2.4 Specific and relevant information are accessed from <u>appropriate sources</u> 2.5 Appropriate medium is used to transfer information and ideas
3. Participate in workplace meetings and discussions	3.1 Team meetings are attended on time and followed meeting procedures and etiquette 3.2 Own opinions are expressed and listened to those of others without interruption 3.3 Inputs are provided consistent with the meeting purpose and interpreted and implemented meeting outcomes
Range of Variables	
Variable	Range (May include but not limited to)

1. Instructions	<ul style="list-style-type: none"> 1.1 Supervisor's/Team leader's verbal instructions 1.2 Meeting minutes 1.3 Company Rules and Regulations 1.4 Work Plans 1.5 External communications 1.6 Work Instructions 1.7 Job orders
2. Appropriate Sources	<ul style="list-style-type: none"> 2.1 HR Department 2.2 Managers 2.3 Supervisors
<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 required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 interpreted information/instruction 1.2 interpreted Workplace documents 1.3 interpreted workplace instructions and symbols
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Workplace communication policies, standards and procedures 2.2 Modes of communication 2.3 Communication equipment: types, uses and faults 2.4 Using suitable Types of communication tools and equipment their application and use 2.5 Channels of communication 2.6 Ways of recording information/instruction 2.7 Types and forms of work signage and their meanings 2.8 Forms of written instructions 2.9 Forms of verbal and written communication and methods of transmitting
3. Underpinning skill	<ul style="list-style-type: none"> 3.1 Recording information/instruction 3.2 Acting on work signage positively 3.3 Obeying written instructions in accordance to proper sequence 3.4 Transmitting directions by the use of verbal and written forms of communication 3.5 Using suitable communication tools and equipment 3.6 Contributing in meetings and discussions in the work place 3.7 Applying meeting outputs
4. Underpinning Attitudes	<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

	4.6 Communication with peers and seniors in workplace
5. Resource implication	5.1. Pens 5.2. Documents 5.3. Company standard written communication forms
6. Methods of assessment	6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a NSDA accredited assessment centre 7.2 Assessment should be done by an NSDA certified/nominated assessor

Accreditation Requirements

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

Unit Code and Title	GU004L2V1: Work in a Self-Directed Team
Nominal Hours	15 Hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to work in a self-directed team. It specifically includes identifying team goals and work processes, communicating and cooperating with team members, working as a team member and solving problems as a team member.
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables Training Components
1. Identify team goals and work processes	<p>1.1 Team goals and collaborative decision-making processes are identified.</p> <p>1.2 Roles and responsibilities of team members are identified</p> <p>1.3 Relationships within team and with other workers are identified</p>
2. Communicate and cooperate with team members.	<p>2.1 Effective interpersonal skills are used to interact with team members and to contribute to activities and objectives</p> <p>2.2 Formal and informal <u>forms of communication</u> are used effectively to support team achievement.</p> <p>2.3 Diversity is respected and valued in team functioning.</p> <p>2.4 Views and opinions of other team members are understood and valued.</p> <p>2.5 Workplace terminology is used correctly to assist communication</p>
3. Work as a team member	<p>3.1 Duties, responsibilities, authorities, objectives and task requirements are identified and clarified with team</p> <p>3.2 Tasks are performed in accordance with organizational and team requirements, specifications and workplace procedures.</p> <p>3.3 Team member's support with other members are made to ensure team achieves goals, awareness and requirements.</p> <p>3.4 Agreed reporting lines are followed using standard operating procedure.</p>
4. Solve problems as a team member	<p>4.1 Current and potential problems faced by team are identified</p> <p>4.2 A solution to the problem is identified</p> <p>4.3 Problems are solved effectively and the outcome of</p>

	the implemented solution is evaluated
Range of Variables	
Variable	Range (May include but not limited to)
1. Forms of communication	1.1 Agenda 1.2 Simple reports such as progress and incident reports. 1.3 Job sheets/Job card. 1.4 Operational manuals. 1.5 Brochures and promotional material. 1.6 Visual and graphic materials. 1.7 OSH information. 1.8 Signs.
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 required evidence that the candidate: <ol style="list-style-type: none"> 1.1 identified roles and responsibilities of team members 1.2 identified relationships within team and with other workers 1.3 used workplace terminology to assist communication 1.4 identified and clarified the duties, responsibilities, authorities, objectives and task requirements with team 1.5 identified current and potential problems faced & solution to the problem 1.6 evaluated outcome of the implemented solution
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1 Team goals and collaborative decision-making processes 2.2 Roles and responsibilities of team members 2.3 Relationships within team and with other workers 2.4 Effective interpersonal skills to interact with team members 2.5 Effective formal and informal forms of communication 2.6 Value of diversity in team functioning. 2.7 Correct use of workplace terminology 2.8 Team's duties, responsibilities, authorities, objectives and task requirements 2.9 Support mechanism to other members of team to ensure achievements of goals. 2.10 Methods of identifying current and potential problems faced by a team 2.11 Effectively problems solving methods and evaluation of outcomes

3. Underpinning skill	<ul style="list-style-type: none"> 3.1 Interpreting team goals and collaborative decision-making processes 3.2 Interpreting roles and responsibilities of team members 3.3 Interpreting relationships within team and with other workers 3.4 Using formal and informal forms of communication 3.5 Interpreting views and opinions of other team members 3.6 Interpreting tasks in accordance with organizational and team requirements, specifications and workplace procedures.
4. Underpinning Attitudes	<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 4.6 Communication with peers and seniors in workplace
5. Resource implication	<ul style="list-style-type: none"> 5.1 Workplace (simulated or actual) 5.2 Pens 5.3 Papers 5.4 Work books 5.5 Learning manuals 5.6 On-line communication 5.7 Company standard written communication forms
6. Methods of assessment	<ul style="list-style-type: none"> 6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in a NSDA accredited assessment center 7.2 Assessment should be done by an NSDA certified/nominated assessor

Accreditation Requirements

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

Sector Specific Competencies

Unit Code and Title	SURT002L3V1: Perform Measurement and Calculations
Nominal Hours	15 Hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required for performing measurements and calculations in RMG Industries. It specially includes Identifying & checking measuring instruments, carrying out measurements, interpreting simple calculations, maintaining measuring devices measurements and performing simple calculation.
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables.
1. Identify & check measuring instruments	<ul style="list-style-type: none"> 1.1. Work instructions are confirmed and applied. 1.2. Materials to be measured are identified and classified. 1.3. Appropriate <u>measuring devices</u> are selected based on materials to be measured 1.4. Specifications are obtained from relevant <u>documents</u>. 1.5. Tolerance and clearance limits are identified and adjusted according to job requirements.
2. Carry out measurements	<ul style="list-style-type: none"> 2.1. Accurate <u>measurements</u> are obtained in accordance with job requirements 2.2. Systems of measurements are identified and measurement conversions done as per requirement 2.3. Measurements are confirmed and recorded in the given company format
3. Interpret simple calculations	<ul style="list-style-type: none"> 3.1. Simple calculations involving <u>basic operations</u> are carried out 3.2. <u>Other operations</u> are used to complete tasks 3.3. Appropriate formulas for calculating quantities of materials are selected 3.4. <u>calculations</u> are performed and verified 3.5. Material quantities are calculated and shared with team as per requirement
4. Maintain measuring devices	<ul style="list-style-type: none"> 4.1 Cleaning equipment and materials are collected. 4.2 Measuring devices are cleaned, maintained and stored.
Range of Variables	
Variables	Range (may include but not limited to):

1. Measuring device	<ul style="list-style-type: none"> 1.1. Measuring Tape 1.2. Steel rule 1.3. Calculator 1.4. Sets square
2. Documents	<ul style="list-style-type: none"> 2.1. Technical Manuals 2.2. Specifications 2.3. Sketches 2.4. Charts 2.5. Photographs
3. Measurements	<ul style="list-style-type: none"> 3.1. Length 3.2. Width 3.3. Weight 3.4. Tolerance
4. Basic operation	<ul style="list-style-type: none"> 4.1. Addition 4.2. Subtraction 4.3. Multiplication 4.4. Division
5. Other operations	<ul style="list-style-type: none"> 5.1. Fractions 5.2. Percentages 5.3. Mixed numbers 5.4. Conversions 5.5. Scales
6. Calculations	<ul style="list-style-type: none"> 6.1. Area 6.2. Volume 6.3. Circumference 6.4. CBM 6.5. Volumetric Weight
<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 required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 selected measuring devices based on materials to be measured 1.2 identified systems of measurements 1.3 obtained measurements as per job requirements 1.4 carried out calculations for quantities of materials 1.5 confirmed and recorded measurements as per standard 1.6 maintained measuring devices

2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Information on measuring devices 2.2 Units of Measurement 2.3 Units of Conversion 2.4 Selection technique of appropriate measuring devices 2.5 Measurement and calculation technique for apparel merchandising 2.6 Techniques of recording measurements 2.7 Way to allowance and Tolerance 2.8 Presentation of data and information 2.9 Instructions to use of measuring devices
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Identifying measuring devices based on materials to be measured 3.2 Interpreting specification of measuring devices from relevant document 3.3 Interpreting procedure of taking measurement according to the job requirements 3.4 Interpret calculations for quantities of materials 3.5 Interpreting the technique of conforming and recording measurements as per standard
4. Underpinning attitudes	<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 4.6 Communication with peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1. Work instructions 5.2. Relevant Documents 5.3. Measuring instruments & other tools, equipment and physical facilities appropriate to perform activities. 5.4. Materials to be measured
6. Methods of assessment	<ul style="list-style-type: none"> 6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in a NSDA accredited assessment centre 7.2 Assessment should be done by an NSDA certified/ nominated assessor

Accreditation Requirements

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

Unit Code and Title	SURT002L2V1: Apply Quality Procedures
Nominal Hours	20 Hours
Unit Descriptor	This unit covers the knowledge, skills and attitude required for applying quality procedures for RMG Industries. It specially includes Identifying & following quality procedures & maintaining standard procedure
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables.
1. Identify quality procedures	<ul style="list-style-type: none"> 1.1. Manuals are collected as per sample 1.2. Importance of manuals is recognized 1.3. Instructions and procedures are identified 1.4. Required information are collected from manuals 1.5. Performance measurement systems are identified
2. Follow quality procedure	<ul style="list-style-type: none"> 2.1. Instructions and procedures are followed strictly and duties are performed in accordance with demand of quality improvement system. 2.2. Concept of supplying product or service to meet the customer quality requirements is understood and accordingly applied. 2.3. Conformance to specifications is ensured. 2.4. Defects are detected and reported to authority according to standard operating procedures
3. Maintain standard procedure	<ul style="list-style-type: none"> 3.1. Performance is assessed at regular interval. 3.2. Specifications and standard operating procedures are established 3.3. Quality of product is checked and verified. 3.4. Quality control and quality assurance system procedures for each job are followed. 3.5. Conformance to specification is ensured in every case at all situations.
Range of Variables	
Variables	Range (may include but not limited to):
1. Manuals	<ul style="list-style-type: none"> 1.1 Buyers specification manual 1.2 Compliance manual 1.3 Maintenance procedure manual 1.4 Periodic maintenance manual 1.5 Quality manual 1.6 Signs and symbols, instruction manuals
2. Quality improvement system.	<ul style="list-style-type: none"> 2.1 Quality inspection 2.2 Testing 2.3 Quality control.

	<ul style="list-style-type: none"> 2.4 Quality assurance 2.5 Total Quality Management
3. customer quality requirements	<ul style="list-style-type: none"> 3.1 Performance 3.2 Features 3.3 Reliability 3.4 Conformance 3.5 Aesthetics 3.6 Durability.
<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 required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 followed instructions and procedures strictly 1.2 performed duties in accordance with demand of quality system 1.3 ensured conformance to specifications 1.4 detected defects and reported to authority in accordance to standard operating procedures. 1.5 supplying product or service to meet the customer quality requirements 1.6 followed quality control and quality assurance system procedures for each job
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Importance of maintaining quality 2.2 quality, quality assurance, quality control, quality inspection, quality improvement and total quality control. 2.3 Process and procedures for improving and maintaining quality 2.4 Procedures for addressing defects. 2.5 Record keeping within the quality improvement system in workplace 2.6 Factors, which affect successful implementation of the quality systems and procedures.
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Interpreting term good quality 3.2 Improving and maintaining technique of quality 3.3 Interpreting defects and procedures 3.4 Interpreting quality systems and procedures
4. Underpinning attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety practices 4.2 Communication with peers, sub-ordinates and seniors in workplace. 4.3 Promptness in carrying out activities. 4.4 Tidiness and punctual.

	<p>4.5 Sincere and honest to duties</p> <p>4.6 Responsible during emergencies</p>
5.Resource implications	<p>5.1 Tools, equipment and physical facilities appropriate to perform activities.</p> <p>5.2 Materials, consumables to perform activities.</p>
6.Methods of assessment	<p>6.1 Written Test</p> <p>6.2 Demonstration</p> <p>6.3 Oral Questioning</p> <p>6.4 Portfolio</p>
7.Context of assessment	<p>7.1 Competency assessment must be done in a NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by an NSDA certified/ nominated assessor</p>

Accreditation Requirements

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

Occupation Specific Competencies

Unit Code and Title	OUSMO0001L2V1: Interpret Knit Fabrics and Garments
Nominal Hours	10 hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to interpret Knit fabric & garments. It specifically includes Interpreting Knit fabrics, knit garments and handling procedures of Knit fabric.
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables.
1 Interpret knit fabrics	1.1 Knit fabrics are identified. 1.2 <u>Types of knit fabric</u> are interpreted. 1.3 <u>Properties of knit fabrics</u> are recognized.
2 Interpret knit garments	2.1 Knit garments are identified. 2.2 <u>Types of knit garments</u> are interpreted.
3 Interpret handling procedures of knit fabric	3.1 <u>Safety and health issues</u> in handling of knit fabric is interpreted. 3.2 Knit fabric is properly handled.
Range of Variables	
Variables	Range (may include but not limited to):
1. Types of knit fabric	1.1 Single jersey 1.2 Double jersey 1.3 Rib 1.4 Interlock 1.5 Lacoste 1.6 Pique 1.7 Terry 1.8 Fleece
2. Properties of knit fabrics	2.1 Smoothness 2.2 Flexibility 2.3 Elasticity 2.4 Hand feel
3. Types of knit garments	3.1 T-Shirt 3.2 Polo-Shirt 3.3 Tank top 3.4 Trouser 3.5 Hoody 3.6 Sportswear
4. Safety and health issues	4.1 Exposure to fabric dust 4.2 Skin irritation due to chemical 4.3 Skin abrasion 4.4 Eye nose and throat irritation

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. interpreted types of knit fabrics and knit garments 1.2. maintained safety and health issues in handling of knit fabric 1.3. handled Knit fabric as per standard
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Types of Knit fabric 2.2 Properties of knit fabrics 2.3 Types of Knit garments 2.4 Safety and health issues in handling of knit fabric
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Identifying knit fabrics 3.2 Recognizing properties of knit fabrics 3.3 Handling knit fabric is properly
4. Underpinning Attitudes	<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 4.6. Communication with peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1. Workplace (simulated or actual) 5.2. Different kinds of Knit fabric 5.3. Different kinds of Knit garments 5.4. Relevant Tools, equipment and materials Work instruction sheet 5.5. Pens and papers
6. Methods of assessment	<ul style="list-style-type: none"> 6.1. Written Test 6.2. Demonstration 6.3. Oral Questioning 6.4. Portfolio
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in a NSDA accredited assessment centre 7.2 Assessment should be done by an NSDA certified/nominated assessor

Accreditation Requirements

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

Unit Code and Title	OUSMO0002L2V1: Prepare for Sewing Operation
Nominal Hours	40 hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to Prepare for sewing operation. It specifically includes Identifying pattern and garments parts, number and bundle of garments parts, garments accessories & Setting up machine.
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables.
1. Identify pattern and garments parts	1.1 <u>Types of Patterns</u> are interpreted. 1.2 Working pattern is identified. 1.3 Working pattern is interpreted as per design and measurements. 1.4 Working pattern is marked on garments part.
2. Identify number and bundle of garments parts	2.1 Bundles are selected and collected as per job requirement. 2.2 Bundles are checked as per selected job. 2.3 Numbers of <u>cutting components of bundle</u> are matched as per bundle.
3. Identify garments accessories	3.1 <u>Tools, machine</u> are identified as per job requirement. 3.2 <u>Materials</u> are identified as per job requirement. 3.3 Tools, machine and materials are prepared as per job requirement.
4. Set up machine	4.1 Machine is cleaned. 4.2 Lubricant is checked as per oil level. 4.3 <u>Safety guards</u> are checked and used as per job requirement. 4.4 <u>Machine parts</u> are checked and adjusted 4.5 <u>Types of needle</u> are selected according to materials, sewing manuals. 4.6 Tension of the stitches are checked and set. 4.7 Machine is checked to ensure the width of the stitch 4.8 Power supply of machine is ensured.
Range of Variables	
Variables	Range (may include but not limited to):
1. Types of pattern	1.1 Fabric Pattern 1.2 Finished Pattern

2. Cutting components of Bundle	<ul style="list-style-type: none"> 2.1 Front part 2.2 Back Part 2.3 Sleeve 2.4 Neck Rib 2.5 Placket 2.6 Pocket
3 Tools, machine	<p>3.1 Tools</p> <ul style="list-style-type: none"> 3.1.1 Button hole presser foot attachment 3.1.2 Scissors 3.1.3 Fabric marking pen 3.1.4 Seam ripper <p>3.2 Machine</p> <ul style="list-style-type: none"> 3.2.1 Sewing machine 3.2.2 Button hole sewing machine
4 Materials	<p>4.1 Materials</p> <ul style="list-style-type: none"> 4.1.1 Main materials <ul style="list-style-type: none"> 4.1.1.1 Fabrics 4.1.1.2 Tapes 4.1.2 Sub Materials <ul style="list-style-type: none"> 4.1.2.1 Trims 4.1.2.2 Accessories
5 Safety Guard	<ul style="list-style-type: none"> 5.1 Motor guard 5.2 Eye guard 5.3 Belt Guard 5.4 Needle Guard
6 Machine Parts	<ul style="list-style-type: none"> 6.1 Feed dog 6.2 Three needle bar and three needle 6.3 Tension post assembly 6.4 Thread guide 6.5 Pressure adjusting screw 6.6 Throat plate 6.7 Slide plate 6.8 Stitch length regulator 6.9 Pressure adjusting screw 6.10Threat foot and pressure bar
7 Types of needle	<ul style="list-style-type: none"> 7.1 Ball Point 7.2 Round Point

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> <ol style="list-style-type: none"> 1.1. marked working patterns on garment part. 1.2. selected and collected bundles 1.3. matched numbers of cutting components of bundle. 1.4. prepared tools, machine and materials. 1.5. cleaned machine and checking lubricate. 1.6. checked safety guards and machine parts. 1.7. checked tension of the stitches. 1.8. ensured width of the stitch and power supply of machine.
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1 Types of patterns 2.2 Working pattern 2.3 Number and Bundle of garments 2.4 Cutting components of bundle 2.5 Tools, machine and materials as per job requirement. 2.6 Safety guards and machine parts 2.7 Types of needle 2.8 Adjustment tension of sewing machine
3. Underpinning skills	<ol style="list-style-type: none"> 3.1 Identifying working pattern 3.2 Interpreting working patterns on garment part. 3.3 Selecting and collecting bundles 3.4 Interpreting numbers of cutting components of bundle. 3.5 Preparing procedure of tools, machine and materials. 3.6 Cleaning procedure of machine and checking lubricate. 3.7 Checking procedure of safety guards and machine parts. 3.8 Ensuring power supply of machine.
4. Underpinning attitudes	<ol 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 4.6 Communication with peers and seniors in workplace
5. Resource Implications	<ol style="list-style-type: none"> 5.1. Workplace (simulated or actual) 5.2. Pattern 5.3. Bundle 5.4. Accessories 5.5. Sewing machinery

	<ul style="list-style-type: none"> 5.6. Sewing machine work aids 5.7. Manual 5.8. Work instruction sheet
6. Methods of assessment	<ul style="list-style-type: none"> 6.1. Written Test 6.2. Demonstration 6.3. Oral Questioning 6.4. Portfolio
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in a NSDA accredited assessment centre 7.2 Assessment should be done by an NSDA certified/nominated assessor

Accreditation Requirements

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

Unit Code and Title	OUSMO0003L2V1: Carry Out Machine Performance
Nominal Hours	25 hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to Carry out machine performance. It specifically includes applying the attachments sewing machine and performing sewing machine maintenance.
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables.
1. Apply the attachments of sewing machine	1.1 Types of <u>attachments of sewing machine</u> are identified. 1.2 Attachments of sewing machine are applied.
2. Perform sewing machine maintenance	2.1 Preventive maintenance requirements are identified and interpreted. 2.2 <u>Preventive maintenance activities</u> performed according to job requirements 2.3 Machine is cleaned and lubricated as per machine manual.
Range of Variables	
Variables	Range (may include but not limited to):
1. Attachments of Sewing machine	1.1 Feed 1.2 Guide 1.3 Folders
2. Preventive maintenance activities	2.1 Feed dog check 2.2 Needle scale check 2.3 Needle plate check 2.4 Belt cover check 2.5 Throat plate 2.6 Pully cover check 2.7 Needle guard check 2.8 Fabric guide check 2.9 Eye glass check
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 required evidence that the candidate: 1.1 identified the types of sewing machine attachments 1.2 applied attachments of sewing machine. 1.3 performed preventive maintenance activities. 1.4 cleaned and lubricated sewing machine.

2. Underpinning Knowledge	<ul style="list-style-type: none"> 2.1 Types of sewing machine attachments 2.2 Operation and application of different types of sewing machine attachments. 2.3 Lubricating procedure of sewing machine. 2.4 Preventive maintenance activities.
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1 Identifying the types of sewing machine attachments 3.2 Interpreting attachments of sewing machine. 3.3 Interpreting preventive maintenance activities 3.4 Cleaned and lubricated sewing machine
4. Underpinning attitudes	<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 4.6 Communication with peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1. Workplace (simulated or actual) 5.2. sewing machine 5.3. sewing machine attachments 5.4. Maintenance tools 5.5. Work instruction sheet
6. Methods of assessment	<ul style="list-style-type: none"> 6.1. Written Test 6.2. Demonstration 6.3. Oral Questioning 6.4. Portfolio
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in a NSDA accredited assessment centre 7.2 Assessment should be done by an NSDA certified/ nominated assessor

Accreditation Requirements

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

Unit Code and Title	OUSMO0004L2V1: Operate Industrial Sewing Machine
Nominal Hours	100 hours
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to Operate industrial sewing machine.</p> <p>It specifically includes Following safety procedure at workplace, operating single needle machine, over lock machine, flat lock machine, Button hole machine, Button attach machine and store tools and clean the workplace.</p>
Elements of Competency	<p>Performance Criteria</p> <p><u>Bold and Underlined</u> terms are elaborated in the Range of Variables.</p>
1 Follow safety procedure at workplace	<p>1.1 Occupational Safety and Health (OHS) is followed and <u>Personal Protective Equipment (PPE)</u> is used as per job requirements.</p> <p>1.2 Safety guards are checked as per job requirements.</p> <p>1.3 Machine is cleaned and checked as per safety procedures.</p>
2 Operate single needle machine	<p>2.1 <u>Single needle machine</u> is started and checked for normal operation.</p> <p>2.2 Necessary adjustments are made to conform to workplace requirements</p> <p>2.3 Knit fabric are sewed using single needle machine as per design and style requirement</p> <p>2.4 Quality of stitch is maintained as per sample.</p> <p>2.5 <u>Unusual operating conditions are</u> observed during operation and reported to authority.</p>
3 Operate over lock machine	<p>3.1 Over lock machine is started and checked for normal operation.</p> <p>3.2 Necessary adjustments are made to conform to workplace requirements</p> <p>3.3 Knit fabric are sewed using over lock machine as per design and style requirement</p> <p>3.4 Quality of stitch is maintained as per sample.</p> <p>3.5 Unusual operating conditions are observed during operation and reported to authority.</p>
4 Operate flat lock machine	<p>4.1 Flat lock machine is started and checked for normal operation</p> <p>4.2 Necessary adjustments are made to conform to workplace requirements</p> <p>4.3 Knit fabric are sewed using flat lock machine as per design and style requirement</p> <p>4.4 Quality of stitch is maintained as per sample.</p>

	4.5 Unusual operating conditions are observed during operation and reported to authority.
5 Operate button hole machine	5.1 Button hole machine is started and checked for normal operation 5.2 Necessary adjustments are made to conform to workplace requirements 5.3 Button hole are sewed using button hole machine as per design and style requirement 5.4 Quality of stitch is maintained as per sample. 5.5 Unusual operating conditions are observed during operation and reported to authority.
6 Operate button attach machine	6.1 Button attach machine is started and checked for normal operation 6.2 Necessary adjustments are made to conform to workplace requirements 6.3 Different <u>types of button stitches</u> and their application is described. 6.4 Buttons are attached using button attach machine as per design and style requirement 6.5 Quality of stitch is maintained as per sample. 6.6 Unusual operating conditions are observed during operation and reported to authority.
7 Store tools and clean the workplace	7.1 Machine is switched off. 7.2 Waste materials are disposed as per workplace standard operating procedure (SOP). 7.3 Machines are cleaned and covered.
Range of Variables	
Variables	Range (may include but not limited to):
1. Single needle machine	1.1 Lock stitch machine 1.2 Chain stitch machine
2. Personal Protective Equipment (PPE)	2.1 Mask 2.2 Safety shoes 2.3 Apron 2.4 Hand gloves 2.5 Scarf
3. Unusual operating condition	3.1 Unusual machine noise 3.2 Excess oil/lubricant 3.3 Unusual needle breakage 3.4 Irregular stitch tension
4. Types of button stitches	4.1 Square buttonhole 4.2 Rounded button hole at one end 4.3 Rounded button hole on both ends

	<p>4.4 Keyhole button hole</p> <p>4.5 Stretch buttonhole</p> <p>4.6 Knit buttonhole</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>	
<p>1 Critical aspects of competency</p>	<p>Assessment required evidence that the candidate:</p> <p>1.1 followed Occupational Health and Safety (OHS)</p> <p>1.2 checked safety guards.</p> <p>1.3 observed operating conditions during operation.</p> <p>1.4 cleaned and checked sewing machine.</p> <p>1.5 sewed knit fabric using single needle machine.</p> <p>1.6 sewed knit fabric using over lock machine.</p> <p>1.7 sewed knit fabric using flat lock machine.</p> <p>1.8 sewed button hole using button hole machine.</p> <p>1.9 attached buttons using button attach machine.</p> <p>1.10 maintained stitch quality.</p> <p>1.11 cleaned machines and place</p>
<p>2. Underpinning knowledge</p>	<p>2.1 Personal Protective Equipment (PPE) used in operation of knit garments sewing machines</p> <p>2.2 Size and type of needle used in sewing of Knit fabrics</p> <p>2.3 Procedure and techniques of winding and setting of bobbins in accordance with machine manufacturer's requirements</p> <p>2.4 Machine threading procedure and techniques in accordance with machine manufacturer's requirements</p> <p>2.5 Operation and maintenance of single needle, over-lock, flat lock, button hole & button attach machine.</p> <p>2.6 Sewing methods and techniques on Knit materials using different types of knit machines in accordance with design and style requirement</p> <p>2.7 Machine & place cleaning procedures</p>
<p>3. Underpinning skills</p>	<p>3.1 Following Occupational Safety and Health (OSH)</p> <p>3.2 Using Personal Protective Equipment (PPE)</p> <p>3.3 Checking safety guards.</p> <p>3.4 Interpreting operating conditions during operation.</p> <p>3.5 Cleaning and checking sewing machine.</p> <p>3.6 Interpreting Sewing procedure of knit fabric using single needle machine.</p> <p>3.7 Interpreting Sewing procedure of knit fabric using over lock machine.</p> <p>3.8 Interpreting Sewing procedure of knit fabric using flat</p>

	lock machine. 3.9 Interpreting Sewing procedure of button hole using button hole machine.
4 Underpinning attitudes	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 4.6 Communication with peers and seniors in workplace
5 Resource implications	5.1 Single needle machine 5.2 Over lock machine 5.3 Flat lock machine 5.4 Button hole machine 5.5 Button attach machine 5.6 Paper 5.7 Fabric 5.8 Threads 5.9 Sewing materials as per requirements
6 Methods of assessment	6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio
7 Context of assessment	7.1 Competency assessment must be done in a NSDA accredited assessment centre 7.2 Assessment should be done by an NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OUSMO0005L2V1: Make T-Shirts and Polo-Shirts
Nominal Hours	90 hours
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to make T-shirts and Polo shirts.</p> <p>It specifically includes following safety procedure at workplace, identifying process of T-shirts and polo shirts, performing stitching operation for T-shirts and polo shirt, checking stitch quality of T-shirts and polo shirts, storing tools, and cleaning workplace.</p>
Elements of Competency	<p>Performance Criteria</p> <p><u>Bold and Underlined</u> terms are elaborated in the Range of Variables.</p>
1. Follow safety procedure at workplace	<p>1.1 Occupational Health and Safety (OHS) is followed and Personal Protective Equipment (PPE) is used as per job requirements.</p> <p>1.2 Safety guards are checked as per job requirements.</p> <p>1.3 Tools and materials selected and collected</p> <p>1.4 Machine is cleaned and checked as per safety procedures.</p>
2. Identify process of T-shirts and polo shirts.	<p>2.1 Customer & workplace requirements are identified.</p> <p>2.2 <u>Components of T-shirts and polo shirts</u> are identified as per sample.</p> <p>2.3 Process of T-shirts and polo shirts are identified as per sample.</p> <p>2.4 Stitching operation for T-shirts, Polo-Shirts are interpreted as per SOP.</p> <p>2.5 Assembling operation of T-shirt parts, Polo-Shirts parts are interpreted as per SOP.</p>
3. Perform stitching operation for T-shirts and Polo Shirts	<p>3.1 <u>Tools</u> and <u>materials</u> are selected and collected.</p> <p>3.2 Materials are arranged as per job requirement.</p> <p>3.3 Front part stitching operations for T-shirts and Polo Shirts are carried out as per sample.</p> <p>3.4 Back part stitching operations for T-shirts and Polo Shirts are carried out as per sample.</p> <p>3.5 Assembling operation of T-shirt and Polo Shirt parts are performed</p> <p>3.6 Excess threads are trimmed as per sample</p>
4. Check stitch quality of T-shirts and polo shirts	<p>4.1 Stitch quality is checked as per sample.</p> <p>4.2 <u>Stitch Defects</u> are identified and repaired.</p> <p>4.3 Quality is maintained by checking and trimming excess</p>

	thread and neatening.
5. Store tools and clean the workplace	5.1 Machine is switched off. 5.2 Waste materials are disposed as per workplace standard 5.3 Machines are cleaned and covered.
Range of Variables	
Variable	Range (may include but not limited to):
1 Tools	1.1 Trimmer 1.2 Tweezers/Forceps 1.3 Hammers/Plastic Hammer 1.4 Cleaning Brush 1.5 Scissors
2 Materials	2.1 Fabric 2.1.1 Single Jersey 2.1.2 Lacoste 2.1.3 Pique 2.1.4 Rib 2.1.5 Interlock 2.1.6 Fleece 2.1.7 French Terry 2.2 Thread 2.2.1 Cotton 2.2.2 Filament
3 PPE	3.1 Mask 3.2 Safety eye glasses 3.3 Safety shoes 3.4 Apron 3.5 Hand gloves 3.6 Scarf
4 Safety Guard	4.1 Needle Guard 4.2 Eye Guard
5 Components of T-shirt and Polo Shirts	5.1 Front part 5.2 Back part 5.3 Sleeves 5.4 Hem 5.5 Pockets 5.6 Shoulder seams 5.7 Neck band 5.8 Labels 5.9 Collar 5.10 Placket 5.11 Cuff
6 Stitch Defects	6.1 Gathering 6.2 Broken stitch

	<ul style="list-style-type: none"> 6.3 Puckering 6.4 Loose Stitch 6.5 Wrinkles 6.6 Skip Stitch 6.7 Floating Stitch 6.8 Uneven Stitch 6.9 Needle cut 6.10 Slipped stitch 6.11 Stagger stitch
<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 required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1. followed safety procedures 1.2. checked safety guards. 1.3. cleaned and checking sewing machine. 1.4. performed front part stitching operations for T-shirts and polo shirts. 1.5. performed back part stitching of T-shirts and polo shirts. 1.6. performed assembling operation of T-shirt and Polo Shirt parts 1.7. trimmed excess thread. 1.8. checked stitching quality. 1.9. repaired stitch defects. 1.10. disposed waste materials. 1.11. cleaned and covered sewing machine.
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1. Personal Protective Equipment (PPE) used in operation of knit garments sewing machines. 2.2. Tools and materials. 2.3. Components of T-shirts and polo shirts. 2.4. Process of T-shirts and polo shirts. 2.5. Stitching operation of T-shirts and polo shirts. 2.6. Assembling operation of T-shirts and polo shirts. 2.7. Stitch defects. 2.8. Maintain quality.
3. Underpinning skills	<ul style="list-style-type: none"> 3.1. Using Personal Protective Equipment (PPE) 3.2. Checking safety guards 3.3. Cleaning and checking sewing machine 3.4. Interpreting stitching operation for T-shirts and polo shirts 3.5. Interpreting assembling operation of T-shirts and polo shirts 3.6. Interpreting front part stitching operations for T-shirts

	<p>and polo shirts</p> <p>3.7. Interpreting back part stitching of T-shirts and polo shirts</p> <p>3.8. Trimming excess thread.</p> <p>3.9. Checking method stitching quality.</p> <p>3.10. Repairing method stitch defects.</p> <p>3.11. Disposing waste materials.</p>
4. Underpinning attitudes	<p>4.1 Commitment to occupational health and safety</p> <p>4.2 Environmental concerns</p> <p>4.3 Eagerness to learn</p> <p>4.4 Tidiness and timeliness</p> <p>4.5 Respect for rights of peers and seniors in workplace</p> <p>4.6 Communication with peers and seniors in workplace</p>
5. Resource implications	<p>5.1. Workplace (simulated or actual)</p> <p>5.2. Single needle machine</p> <p>5.3. Over lock machine</p> <p>5.4. Flat lock machine</p> <p>5.5. Button hole machine</p> <p>5.6. Button attach machine</p> <p>5.7. Paper</p> <p>5.8. Fabric</p> <p>5.9. Threads</p> <p>5.10. Sewing materials as per requirements</p> <p>5.11. Stitch opener</p> <p>5.12. Marker</p>
6. Methods of assessment	<p>6.1 Written Test</p> <p>6.2 Demonstration</p> <p>6.3 Oral Questioning</p> <p>6.4 Portfolio</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in a NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by an NSDA certified/ nominated assessor</p>

Accreditation Requirements

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

**Participants List First Competency Standard Validation Workshop
Organized by SEIP 22 November, 2016**

SL	Name	Organization	Designation
1	Mr SM Shahjahan	BTEB	Deputy Director (Course Accreditation)
2	Mr Yusuf Hossain	BGMEA	Chief Instructor
3	Mr. Durlov Chandra Kha	BGTTC	Senior Instructor
4	Mr Kamrul Islam	BKMEA	Senior Trainer
5	Mr. Syed Azharul Haque	Skills Zone, Mirpur	CEO
6	Mr AKM Saiduzzaman	BKMEA	Senior Instructor
9	Syed Nasir Ershad	SEIP	AEPD
10	Md. Ahasan Habib	SEIP	TVET Specialist
11	Mohiuzzaman	SEIP	Course Specialist

RTISC Competency Standard Review Workshop Participants (25 August, 2020)

SL	Name	Organization	Designation
1	MD. Mohibullah Masud	BGMEA	Acting Chief Coordinator-SEIP
2	Md. Kamrul Islam	BKMEA	Senior Trainer- SEIP
3	AK M Saiduzzaman	BKMEA	Senior Trainer- SEIP
4	MD. Yusuf Hossain	Dhaka Ahsania Mission	TVET Manager
5	Mr. Syed Azharul Haque	Skills Zone, Mirpur	CEO
6	Mr. Md. Amir Hossain	DPDS Consulting support	Consultant
7	Dr. Md. Sanwar Jahan Bhuiyan	SEIP	DEPD
8	Mohammad Fiznur Rahman	SEIP	AEPD
9	Mohiuzzaman	SEIP	Course Specialist
10	Md. Ahasan Habib	SEIP	TVET Specialist
11	Engr. Abdur Razzaque	SEIP	Specialist-Competency Standard
12	Mohammad Rezaul Karim	NSDA	Member (Skills Standard & Certification)
	Md. Quamruzzaman	NSDA	Director (Skills Standard))
13	Wg Cdr Zaglul Hayder (retd)	RTISC	CEO
14	Md. Sharif Nowaz	RTISC	Executive (Curriculum development & Training)
16	Md. Moniruzzaman	RTISC	Executive (Assessment & Certification)

Validation of competency standard by Standard & Curriculum validation committee (SCVC)

Members of Workshop

SL	Name	Organization	Designation
1	MD. Abu saleh	BKTTC	TVET- Trainer
2	Md. Foyez Ahmed	WINDY Group	Assistant – Co-Ordinator
3	Mr. Kabir Ahmed	SUDOKKHO	Training Co-Ordinator
4	Sabiha Sultana	BKTTC	Chief – Instructor
5	Mr. Syed Azharul Haque	Skills Zone, Mirpur	CEO
6	Mr. Md. Amir Hossain	DPDS Consulting support	Consultant
7	Mr. Abdul Matin	Beximco Group	Training Incharge
8	Mohammad Ziaur Rahman	BTMA	Chief Co-Ordinator
9	Md. Quamruzzaman	NSDA	Director (Skills Standard))
10	BM Shariful Islam	NSDA	Deputy Director (Skills Standard)
11	Engr. Abdur Razzaque	NSDA	Ex-Consultant

Copyright

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

This document is owned by the National Skills Development Authority (NSDA) of the People's Republic of Bangladesh, developed in association with **RMG & Textile Industry Skills Councils Industry Skills Council (RTISC)**.

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

Other interested parties must obtain permission from the owner of this document for reproduction of information in any manner, in whole or in part, of this Competency Standard, in English or other language.

This document is available from:

National Skills Development Authority (NSDA)

423-428 Tejgaon Industrial Area, Dhaka-1215

Phone: +880 2 8891091; Fax: +880 2 8891092;

E-mail: ecnsda@nsda.gov.bd

Website: www.nsga.gov.bd