

BANGLADESH TECHNICAL EDUCATION BOARD



NATIONAL COMPETENCY STANDARDS For Sewing Machine Operation (Pre vocational qualification level - 2)





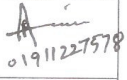
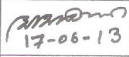

**Informal Sector Industry Skill Council
Bangladesh**

**BANGLADESH TECHNICAL EDUCATION BOARD
June, 2013**

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Bangladesh Technical Education Board
Standard Curriculum Development Committee
NATIONAL COMPETENCY STANDARDS
for
Sewing Machine Operation
(Pre-voc 2, NTVQF 1, 2 & 3)
Meeting held on 17.06.2013

Sl. No	Name of members	Address, Contact number	Designation	Signature	Remarks
1.	Shameem Ahmed Vice President(Finance)	BKMEA Director Miswar Hosiery Mills Limited, Kitubail,Ramabagh, Futullah, N'gonj. 017115820347	Chair Person	01711520347 	CS Documents approved
2.	Nasiruddin Mia B.Sc,Engineer Director	Textile &Postgraduate in Industrial Management,One Composite Mills Ltd.	Member		
3.	Md. Zakaria B.Sc.Engineer, Textile	Chief Executive Officer M D Knit Fashion, BSCIC/W, Futullah N'gonj,01611428649	Member		
4.	Mr. Alamgir Kabir Managing Director	K.A.S.Knitwear Ltd. B/24/A,Malibagh Chowdhury Para 0171300551	Member		
5.	Anawara Sarker Production Manager	Overseas Garment, Lalbagh, Dhaka 01711843153	Member		
6.	Mr.Md.Ruhul Amin Assistant Director	Directorate of Technical Education 01911227578	Member	 01911227578	
7.	Md. Rafiqul Islam Assistant Director	BMET 01914218180	Member		
8.	Eng. Alauddin Khalifa Evaluation Officer	BTEB 01715199194	Member	 17-06-13	
9..	Mr.Provat Kumar Biswas, Instructor	Montage Training & Cerification 142-143 Mirash Para,BISIC Silpa Nagari,Tongi, Dhaka, 01913636508	Member		

NATIONAL COMPETENCY STANDARDS
For
Sewing Machine Operation: Pre-voc 2
Structure of Competency

SL. No.	Unit Code and Title		UoC Level	Hours
Generic: Compulsory (4 UoCs required)				180
1	GNMATHPV2001A1	Apply Basic Mathematics.	Pre-voc 2	40
2	GNOSPPV2002A1	Apply Occupational Safety & Health (OSH) practice in the Work place.	Pre-voc 2	20
3	GNENGPV2003A1	Apply basic English.	Pre-voc 2	60
4	GNBANPV2004A1	Apply basic Bangla.	Pre-voc 2	60
Sector Specific: Compulsory (2 UoCs required)				55
5.	RMGPV2005A1	Use sewing machines & hand tools.	Pre-voc 2	25
6.	RMGPV2006A1	Perform sewing practice on fabrics.	Pre-voc 2	30
Occupation Specific: Compulsory (3 UoCs required)				125
7	RMGSMOPV2007A1	Operate single needle lockstitch machine*.	NTVQF 1	54
8	RMGSMOPV2008A1	Operate double needle lockstitch machine*	NTVQF 1	48
9	RMGPV2009A1	Perform garments thread trimming	Pre-voc 2	23
Grand Total				360 Hrs

* Transacted from NTVQF level-1

GENERIC UNITS

Pre-voc 2

National Technical Vocational Qualification Framework (NTVQF) for Bangladesh
Sewing Machine Operation: Pre-voc 2
Unit of Competency

Unit Code and Title	GNPV2001A1: Apply basic mathematics.
Nominal Hours	40 Hours
Unit Descriptor	This unit of competency requires the knowledge, skills and attitude to apply mathematical method such as addition, subtraction, multiplication and division to measure and find out dimension of object in the workplace.
Elements of Competency	Performance Criteria <i>Italicized terms are elaborated in the range of variables</i>
1. Read and write numeric numbers in Bangla and English.	1.1. Numerical numbers from 0 to 9 in Bangla and English is recognized. 1.2. Arrangement in ascending and descending order of numbers in English and Bangla is demonstrated. 1.3. Reading and writing of numerical numbers in Bangla and English are demonstrated.
2. Use mathematical methods.	2.1. <i>Addition, subtraction, multiplication and division</i> are applied. 2.2. Addition of numbers is carried out. 2.3. Subtraction of numbers from other numbers is demonstrated. 2.4. Multiplication of numbers with other numbers is demonstrated. 2.5. Division of numbers by other numbers is carried out. 2.3. Addition, subtraction, multiplication and division In decimal system are solved. 2.4. Percentage of numbers is calculated.
3. Measure in Metric system.	3.1. Units of measurement of length, breadth, height, weight and thickness in metric system is used. 3.2. Measurement of area and volume of solid and liquid in metric system is carried out. 3.3. Measurement of time is applied.
4. Measure in British system.	4.1. Units of measurement of length, breadth, height, weight and thickness in British system are used. 4.2. Measurement of area and volume of solid and liquid in British system is carried out. 4.3. Measurement of time is applied.
Range of Variables	
Variable	Range

1. Mathematical methods of addition, subtraction, multiplication and division.	Mathematical methods include but not limited to. 1.1. Addition up to six digits is applied. 1.2. Subtraction up to six digits is applied. 1.3. Multiplication up to six digits is applied. 1.4. Division up to six digits is applied. 1.5. Calculation of percentage. 1.6. Calculation of area and volume.
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirement of the current version of the Unit of Competency.	
1. Critical aspect of competency.	1.1. Calculation using addition, subtraction, multiplication and division. 1.2 Measurement of area and volume.
2. Underpinning knowledge.	2.1. Calculation requirements in the workplace. 2.2. Selection of appropriate mathematical methods. 2.3. Use of tools and equipment. 2.4. Symbols and terminology. 2.5. Use of units.
3. Underpinning skill.	3.1. Identification of appropriate mathematical methods from workplace information. 3.2. Selection of workplace information (Charts, tables, equipment, manuals). 3.3. Application of required skills in the workplace.
4. Required attitude.	4.1. Commitment to occupational safety and health. 4.2. Promptness in carrying out activities. 4.3. Tidiness and timeliness. 4.4. Respect for rights of peers, sub-ordinates and seniors in workplace. 4.5. Sincere and honest to the duties. 4.6. Eagerness to learn. 4.7. Communication with peers, sub-ordinates and seniors in the workplace.
5. Resource implication.	The following resources must be provided. 5.1. Calculator. 5.2. Measuring tape. 5.3. Ruler. 5.4. Marking chalk. 5.5. Ball pen. 5.6. Pencil. 5.7. Marker pen. 5.8. White board. 5.9. Flip charts. Tools, equipment and physical facilities. 5.10. Materials and consumables.
6. Assessment methods.	Assessment methods may include but not limited to. 6.1. Continuous assessment 6.2. Oral question 6.3. Observation 6.4. Assignment

	6.5. Witten test
7. Context of assessment.	Competency may be assessed in the workplace or in a simulated workplace.
<p>Accreditation Requirements</p> <p>Training providers must be accredited by Bangladesh Technical Education Board (BTEB), the national quality assurance body or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any national qualification.</p> <p>Accredited providers assessing against this unit of competency must meet the quality assurance requirement set by BTEB.</p>	

National Technical Vocational Qualification Framework (NTVQF) for Bangladesh
Sewing Machine Operation: Pre-voc 2
Unit of Competency

Unit Code and Title	GNPV2002A1: Apply Occupational Safety & Health (OSH) Practice in the workplace
Nominal Hours	20 Hours
Unit Descriptor	This unit of competency requires the knowledge, skills and attitude to apply Occupational Safety & Health (OSH) practice in the workplace.
Elements of Competency	Performance Criteria <i>Italicized terms are elaborated in the range of variables</i>
1. Follow occupation safety and health environment at workplace.	1.1. Personal Protective Equipment (<i>PPE</i>) is used. 1.2. <i>Hazards at workplace</i> explained. 1.3. Unsafe tools at workplace are listed. 1.4. Flammable materials are recognized. 1.5. Access and storable materials are preserved in designated place. 1.6. <i>OSH materials, resources</i> and equipment are used safely according to specifications, legislation and standard operating procedures.
2. Perform work in safe condition.	2.1. Safe OSH practices are followed. 2.2. Appropriate personal protective equipment (PPE) are used. 2.3. Safety signs, symbols and banners are displayed. 2.4. Location of the fire fighters is identified. 2.5. Clear and free emergency exit passage maintained.
3. Use first aid kits.	3.1. Contents in the <i>first aid kit</i> are selected. 3.2. First aid kit in emergency is used.
4. Maintain healthy and hygiene workplace.	4.1. Aspect of good housekeeping is explained. 4.2. Washing procedure of hands and parts of body is used. 4.3. Useable cleaning agents at workplace is selected. 4.5. Safe drinking water is made available.

Range of Variables	
Variable	Range
1. Hazardous workplace.	Hazard includes but not limited to. 1.1. Accumulation of waste materials. 1.2. Random storage of tools, equipment and furniture. 1.3. Storage of rejected wires, cables and structural materials. 1.4. Storage of flammable materials. 1.5. Congested emergency exit. 1.6. Oil splits floor, passage at workplace.

2. OSH materials and resources.	<p>OSH materials and resources include but not limited to.</p> <ol style="list-style-type: none"> 2.1. Hand gloves. 2.2. Mask. 2.3. Apron. 2.4. Cap. 2.5. Goggle. 2.6. Safety shoes. 2.7. Cautionary signs, symbols and banners to be displayed. 2.8. Evacuation program. 2.9. Fire extinguisher. 2.10. Emergency lights, signals. 2.11. Instructions. 2.12. Stretcher.
3. First aids kit.	<p>First aids kit includes but not limited to.</p> <ol style="list-style-type: none"> 3.1. Sterilized cotton. 3.2. Bandage. 3.3. Scissors. 3.4. Washing agent for injury. 3.5. Medicine for burn. 3.6. Medicine for sudden head-ache.
<p>Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirement of the current version of the Unit of Competency.</p>	
1. Critical aspect of competency.	<ol style="list-style-type: none"> 1.1. Use of appropriate OSH materials and equipment. 1.2. Handling of OSH materials and equipment. 1.3. Use of appropriate assessing method. 1.4. Use of appropriate delivery method.
2. Underpinning knowledge.	<ol style="list-style-type: none"> 2.1. Maintenance of good OSH condition in workplace. 2.2. Use of symbols. 2.2. Evacuation instructions with pictures and words 2.3. Planning of floor layout of workplace. 2.4. Elimination of hazardous condition. 2.5. Use of PPE.
3. Underpinning skill.	<ol style="list-style-type: none"> 3.1. Use of appropriate PPE. 3.2. Preparation of signs and banners. 3.4. Displaying of signs and banners.
4. Required attitude.	<ol style="list-style-type: none"> 4.1. Commitment to occupational safety and health. 4.2. Promptness in carrying out activities. 4.3. Tidiness and timeliness. 4.4. Respect for rights of peers, sub-ordinates and seniors in workplace. 4.5. Sincere and honest to the duties. 4.6. Eagerness to learn. 4.7. Communication with peers, sub-ordinates and seniors in the workplace.
5. Resource implication.	<p>The following resources must be provided.</p> <ol style="list-style-type: none"> 5.1. Drawing paper.

	<ul style="list-style-type: none"> 5.2. Drawing templates. 5.3. First aid kit with required contents. 5.4. PPE 5.5. Pen, pencil, marker Pen and eraser. 5.6. Banners showing OSH practice.
6. Method of assessment.	<ul style="list-style-type: none"> 6.1. Oral questions. 6.2. Observation. 6.3. Assignment. 6.4. Practical display. 6.5. Written test.
7. Context of assessment.	Competency may be assessed in the workplace or in a simulated workplace.
<p>Accreditation Requirements</p> <p>Training providers must be accredited by Bangladesh Technical Education Board (BTEB), the national quality assurance body or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any national qualification.</p> <p>Accredited providers assessing against this unit of competency must meet the quality assurance requirement set by BTEB.</p>	

National Technical Vocational Qualification Framework (NTVQF) for Bangladesh
Sewing Machine Operation: Pre-voc 2
Unit of Competency

Unit Code and Title	GNPV2003A1: Apply Basic English
Nominal Hours	60 Hours
Unit Descriptor	This unit of competency requires the knowledge, skills and attitude to read, write, speak and communicate in English in the workplace.
Elements of Competency	Performance Criteria <i>Italicized terms are elaborated in the range of variables</i>
1. Recognize the alphabets in English.	1.1. Alphabets in English are recognized. 1.2. Reading and writing words in English are carried out. 1.3. Reading and writing of technical terms are performed..
2. Read and write workplace information in English.	2.1. Reading of safety signals, banners, nameplates are demonstrated. 2.2. Writing <i>visual information</i> is demonstrated. 2.3. <i>Learning aids</i> are used.
3. Introduce yourself in English to others.	3.1. Introductory conversation in English is demonstrated. 3.2. Self introduction to other in English is performed. 3.3. Reading and writing of nameplates on equipment, materials in the workplace are demonstrated. 3.4. Reading English text is performed. 3.5. <i>Vocabulary</i> practice are performed.
Range of Variables	
Variable	Range
1. Learning aids.	The following resources must be provided to trainees to practice to read, write and speak in English. 1.1. Books / booklets with pictures with names written in English. 1.2. Work sheets / ID cards. 1.3. Catalogues / Manuals. 1.4. White boards / Marker pens. 1.5. Chalk boards / Chalk. 1.6. OSH information banner. 1.7. Pen / Pencil. 1.8. Flip charts. 1.9. Cassettes player / recorder. 1.10. Cassettes recorded in English conversations. 1.11. Lessons in English conversations. 1.12. TV and monitor. 1.13. Multimedia.
2. Visual information.	Visual aid includes but not limited to. 2.1. Signs. 2.2. Banners. 2.3. Forms. 2.4. Charts. 2.5. Labels. 2.6. Photo graphs captions.

	<p>2.7. Catalogues. 2.8. Cartoons. 2.9. Newspaper. 2.10. Name plate</p>
3. Vocabulary practice.	<p>Vocabulary practices include but not limited to. 3.1. Conversation in English between two learners. 3.2. Group conversation. 3.3. Reading. 3.4. Singing. 3.5. Listening and reproducing.</p>
<p>Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirement of the current version of the Unit of Competency.</p>	
1. Critical aspect of competency.	<p>1.1. Reading and writing words in English are carried out. 1.2. Reading and writing of technical terms are performed.</p>
2. Underpinning knowledge.	<p>2.1. Reading of alphabets in English. 2.2. Pronunciation of English words. 2.3. Reading workplace information in English. 2.4. Reading words and sentences in English. 2.5. Structures of words and sentences in English. 2.6. Reading of words in English related to occupation.</p>
3. Underpinning skill.	<p>3.1. Writing of alphabets in English. 3.2. Writing words and sentences in English. 3.3. Writing workplace information in English. 3.4. Writing words and sentences in English related to occupation.</p>
4. Required attitude.	<p>4.1. Communication with peers, sub-ordinates and seniors in the workplace. 4.2. Commitment to occupational safety and health. 4.3. Promptness in carrying out activities. 4.4. Tidiness and timeliness. 4.5. Respect for rights of peers, sub-ordinate and seniors in workplace. 4.6. Sincere and honest to the duties. 4.7. Eagerness to learn.</p>
5. Resource implication.	<p>The learning aids and other required materials must be provided to learn English.</p>
6. Methods of assessment.	<p>Method of assessment includes but not limited to. 6.1. Continuous assessment. 6.2. Oral questions. 6.3. Assignment. 6.4. Written test. 6.5. Reading test 6.6. Speaking test.</p>

7. Context of assessment.	Competency may be assessed in the workplace or in a simulated workplace.
<p>Accreditation Requirements</p> <p>Training providers must be accredited by Bangladesh Technical Education Board (BTEB), the national quality assurance body or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any national qualification.</p> <p>Accredited providers assessing against this unit of competency must meet the quality assurance requirement set by BTEB.</p>	

National Technical Vocational Qualification Framework (NTVQF) for Bangladesh
Sewing Machine Operation: Pre-voc 2
Unit of Competency

Unit Code and Title	GNPV2004A1: Apply Basic Bangla
Nominal Hours	60 Hours
Unit Descriptor	This unit of competency requires the knowledge, skills and attitude to read, write, speak and communicate in Bangla in the workplace.
Elements of Competency	Performance Criteria <i>Italicized terms are elaborated in the range of variables</i>
1. Recognize the alphabets in Bangla.	1.1. Alphabets in Bangla are recognized. 1.2. Reading and writing words in Bangla are carried out. 1.3. Reading and writing of technical terms are performed.
2. Read and write workplace information in Bangla.	2.1. Reading of safety signals, banners, nameplates are demonstrated. 2.2. Writing of <i>visual information</i> are demonstrated. 2.3 <i>Learning aids</i> are used.
3. Introduce yourself in Bangla to others.	3.1. Self introduction to others in Bangla is performed. 3.2. Reading and writing of nameplates on equipment, materials in the workplace are demonstrated. 3.3. Reading Bangla text is performed. 3.4. <i>Vocabulary</i> practices are performed.
Range of Variables	
Variable	Range
1. Learning aids.	The following resources must be provided to trainees to practice to read, write and speak in Bangla. 1.1. Books / booklets with pictures with names written in Bangla. 1.2. Work sheets / ID cards. 1.3. Catalogues / Manuals. 1.4. White boards / Marker pens. 1.5. Chalk boards / Chalk. 1.6. OSH information banner. 1.7. Pen/ Pencil. 1.8. Flip charts. 1.9. Cassettes player / recorder. 1.10. Cassettes recorded in Bangla conversations. 1.11. Lessons in Bangla conversations. 1.12. TV and monitor. 1.13. Multimedia.
2. Visual information.	Visual information includes but not limited to. 2.1. Banner. 2.2. Form. 2.3. Charte. 2.4. Label. 2.5. Photo graphs captions. 2.6. Catalogues. 2.7. News papers.

3. Vocabulary practice.	Vocabulary practices include but not limited to. 3.1. Conversation in Bangla between two learners. 3.2. Conversation In Bangla in groups. 3.3. Reading 3.4. Singing in Bangla. 3.5. Listening and reproducing.
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirement of the current version of the Unit of Competency.	
1. Critical aspect of competency	1.1. Reading and writing words in Bangla are carried out. 1.2. Reading and writing of technical terms are performed.
2. Underpinning knowledge.	2.1. Reading of alphabets in bangla. 2.2. Pronunciation of Bangla words. 2.3. Reading workplace information in Bangla. 2.4. Reading words and sentences in Bangla. 2.5. Structures of words and sentences in Bangla. 2.6. Reading of words in Bangla related to occupation.
3. Underpinning skill.	3.1. Writing of alphabets in Bangla. 3.2. Writing words and sentences in Bangla. 3.3. Writing workplace information in Bangla. 3.4. Writing words and sentences in Bangla related to occupation.
4. Required attitude.	4.1. Communication with peers, sub-ordinates and seniors in workplace. 4.2. Commitment to occupational safety and health. 4.3. Promptness in carrying out activities. 4.4. Tidiness and timeliness. 4.5. Respect for rights of peers, sub-ordinates and seniors in workplace. 4.6. Sincere and honest to the duties. 4.7. Eagerness to learn.
5. Resource implication.	5.1. The learning aids and other required materials must be provided to learn Bangla.
6. Methods of assessment.	Methods of assessment includes but not limited to. 6.1. Continuous assessment. 6.2. Oral questions. 6.3. Assignment. 6.4. Written test. 6.5. Reading test 6.6. Speaking test.
7. Context of assessment.	Competency may be assessed in the workplace or in a simulated workplace.
Accreditation Requirements Training providers must be accredited by Bangladesh Technical Education Board (BTEB), the national quality assurance body or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any national qualification. Accredited providers assessing against this unit of competency must meet the quality	

assurance requirement set by BTEB.

SECTOR SPECIFIC UNITS

Pre-voc 2

**National Technical and Vocational Qualification Framework(NTVQF) for Bangladesh
Sewing Machine Operation: Pre-voc 2
Unit of Competency**

Unit Code and Title	RMGPV2005A1: Use Sewing Machines & Hand Tools.
Nominal Hours	25 Hours
Unit Descriptor	This unit of competency requires the knowledge, skills and attitudes to use the sewing machine for sewing work at work place.
Elements of Competency	Performance Criteria <i>Italicized terms are elaborated in the range of variables</i>
1. Follow OSH practice	1.1. Appropriate <i>PPE</i> Used 1.2. OSH procedures maintained. 1.3. Disposed Waste materials are according to OSH and workplace requirement
2. Classify different types of Sewing machines and functions.	2.1. Identified different types of <i>sewing machines</i> . 2.2. Described functions of sewing machines 2.3. Identified the <i>materials and consumables</i>
2. List the parts of sewing machine.	2.1. Identified the sewing machine <i>parts</i> . 2.2. Described the function of sewing machine parts.
3. Use hand tools and Equipments.	3.1. Selected <i>Hand tools</i> and equipment. 3.2. Used Tools & <i>Equipment</i> as per requirement.
4. Store tools and equipment	4.1 Cleaned Tools and equipment are as per workplace procedure 4.2 Stored safely Tools and equipment according to workplace procedures.
Range of Variables	
Variable	Range
1. Personal Protective Equipment (PPE)	PPE may include but not limited to: 1.1 Apron 1.2 Nail Guard 1.3 Musk 1.4 Cap 1.5 Rubber sole shoe
2. Sewing machine	Sewing machine may include but not limited to: 2.1. Single needle lockstitch machine 2.2. Double needle chain Stitch machine 2.3. Over Locker (5 thread) 2.4. Chain stitch machine 2.5. Button hole stitch machine 2.6. Button stitch machine

3. Hand tools & equipment.	Hand tools & equipment may include but not limited to: 3.1 Scissor 3.2 Stitch opener 3.3 Thread cutter / thread snips 3.4 Measuring tape 3.5 Screw driver 3.6 Cleaning brush 3.7 Pliers 3.8 Electric iron
4. Sewing machine parts.	Sewing machine parts may include but not limited to: 4.1 Presser Bar adjusting screw. 4.2 Take up liver and needle thread tension post. 4.3 Check spring (take up spring), needle bar and needle. 4.4 Presser bar and presser foot. 4.5 Feed dog and sewing implement. 4.6 Bobbin 4.7 Bobbin case. 4.8 Wheel.
5. Materials and Consumables.	Materials and consumable may include but not limited to: 5.1 Threads 5.2 Needle 5.3 Pattern paper 5.4 Elastic 5.5 Interlining (Bokrom) 5.6 Button 5.7 Marking Chalk/Pencil 5.8 Fabrics 5.9 Lining 5.10 Lubricant oil

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 aspect of competency.	1.1 The graduates should be able to select and use hand tools and equipments 1.2 Identify different types of sewing machines 1.3 identify the parts of sewing machine
2. Required underpinning knowledge.	2.1. Types of sewing machines 2.2. Function of different types of machine parts. 2.3. Function of tools and equipment.
3. Required underpinning skills	3.1. Identify of sewing machines, parts tools and equipment 3.2. Use of tools and equipment
4. Required underpinning attitude	4.1. Commitment to occupational safety and health. 4.2. Communication with peers, sub-ordinates and seniors in workplace. 4.3. Promptness in carrying out activities. 4.4. Tidiness and timeliness. 4.5. Respect for rights of peers, sub-ordinates and

	<p>seniors in workplace.</p> <p>4.6. Environmental concerns.</p> <p>4.7. Sincere and honest to the duties.</p>
5. Resource implication.	<p>The following resources must be provided.</p> <p>5.1. Tools, sewing machine, equipment and physical Facilities.</p> <p>5.2. Materials and consumables.</p>
6. Methods of assessment.	<p>Methods of assessment includes but not limited to:</p> <p>6.1. Oral question</p> <p>6.2. Observation</p> <p>6.3. Demonstration</p> <p>6.5. Witten test</p>
7. Context of assessment.	<p>Competency may be assessed in the workplace or in a simulated workplace.</p>

Accreditation Requirements

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National Technical and Vocational Qualification Framework(NTVQF) for Bangladesh
Sewing Machine Operation: Pre-voc 2
Unit of Competency

Unit Code and Title	RMGPV2006A1: Perform Sewing Practice on Fabrics
Nominal Hours	30 Hrs
Unit Descriptor	This unit of competency requires the knowledge, skills and attitudes to perform sewing practice on fabrics with sewing machine at work place.
Elements of Competency	Performance Criteria <i>Italicized terms are elaborated in the range of variables</i>
1. Follow OSH practice	1.1 Used PPE are as appropriate 1.2 Maintained OSH procedures. 1.3 Disposed waste materials are according to OSH and workplace requirement
2. Set sewing machine.	2.1. Cleaned Sewing machine. 2.2. Installed driving belt. 2.3. Adjusted the tension of the belt. 2 4. Identified proper needle. 2. 5. Applied lubricating oil is 2.6 Set sewing machine for operation
3. Operate sewing machine Without needle.	3.1 Operated sewing machine for test run. 3.2. Operated sewing machine without needle with different speed on paper and fabrics
4. Operate sewing machine with needle	4.1 Operated sewing machine for test run. 4.2 Operated the sewing machine with needle with different speed on paper and fabrics 4.3. Fixed up Stitch density
5. Operate sewing machine with thread and needle.	5.1. Installed top thread on the machine. 5.2. Collected correct needle for sewing. 5. 3. Replaced in the Bobbin case and wound the thread in the bobbin and set in the bobbin case 5.4. Collected Fabrics for practice. 5.5. Fixed up Stitch density. 5.6.Performed sewing in different dimension of seam in paper and fabric
6. Clean machine & work place	6.1 Cleaned Sewing machines 6.2 Covered sewing machine as per requirement 6.3 Practiced materials are cleaned and stored safely in appropriate location.

Range of Variables	
Variable	Range
1. Personal Protective Equipment (PPE)	PPE may include but not limited to: 1.1. Gloves 1.2. Apron 1.3. Nail Guard 1.4. Face mask 1.5. Goggles and safety glasses 1.6. Ear plugs 1.7. Rubber sole shoe
2. Sewing machine	Sewing machine may include but not limited to: 2.2 Single needle lockstitch sewing machines. 2.2 Double needle lockstitch sewing machines
3. Dimension of Seams	Dimension of seams may include but not limited to: 3.1 Seams on straight line. 3.2 Seams on curved line. 3.3 Seams on right angle corner. 3.4 Seam on square corner 3.5 Seam on sharp corner 3.6 Seams on half circle turn. 3.7 Seams on junction 3.8 Seam on ZigZag
4. Fabric	Fabrics may include but not limited to: 4.1 Cotton 4.2 Markin 4.3 Silk 4.4 Sharten
5. Paper	Paper may include but not limited to: 5.1 Thin paper 5.2 Hard paper/ Brown paper 5.3 News paper
6. Set machine	Setting of machine may include but not limited to: 6.1 .Pressure foot 6.2. Needle, 6.3. Bobbin case, 6.4. Drive belt 6.5. Thread Tension 6.6 Stitch density 6.7 Oiling machine parts
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 aspect of competency	<ul style="list-style-type: none"> 1.1. The graduates should be able to operate sewing machine in fabric and paper 2.1. Perform sewing in different dimension of seam with fabrics.
2. Required underpinning knowledge	<ul style="list-style-type: none"> 2.1. Control of sewing machines. 2.2. Dimension seam. 2.3. Fixed up of stitch density
3. Required underpinning skills	<ul style="list-style-type: none"> 3.1. Operation of sewing machines. 3.2. Operate machine in slow & controlled speed and at normal speed. 3.3. Sewing in fabric in different dimension of seam
4. Required underpinning attitude	<ul style="list-style-type: none"> 4.1. Commitment to occupational safety and health. 4.2. Communication with peers, sub-ordinates and seniors in workplace. 4.3. Promptness in carrying out activities. 4.4. Tidiness and timeliness. 4.5. Respect for rights of peers, sub-ordinates and seniors in workplace. 4.6. Environmental concerns. 4.7. Sincere and honest to the duties.
5. Resource implication.	<p>The following resources must be provided.</p> <ul style="list-style-type: none"> 5.1. Tools, sewing machine, equipment and physical Facilities. 5.2. Materials and consumables.
6. Methods of assessment.	<p>Methods of assessment includes but not limited to.</p> <ul style="list-style-type: none"> 6.1. Oral question 6.2. Observation 6.3. Demonstration 6.5. Witten test
7. Context of assessment.	Competency may be assessed in the workplace or in a simulated workplace.
<p>Accreditation Requirements Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the national quality assurance body or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p>	

OCCUPATION SPECIFIC UNITS

Pre-voc2

**National Technical and Vocational Qualification Framework(NTVQF) for Bangladesh
Sewing Machine Operation: Pre-voc 2
Unit of Competency**

Unit Code and Title:	RMGSMO100112A Operate Single Needle Lock Stitch Machine.
Unit Descriptor:	This unit of competency requires the Knowledge, Skills and attitudes to operate single needle lockstitch sewing machine. It includes assembling, preparing, sewing and transferring the components.
Nominal Hours:	54 Hours
Elements of Competency	Performance Criteria <i>Italicized words are detailed in the Range of Variables</i>
1. Collect tools and materials.	1.1. Tools and materials are selected and collected as per specifications. 1.2. Materials are arranged as per job requirements .
2. Set machine for operation.	2.1. PPE are collected and used as per job requirement 2.2. Machine is cleaned. 2.3. Lubricant is checked. 2.4. Motor guard, eye guard, belt guard and needle guard are checked and used as safety guard . 2.5. Machine parts are checked and adjusted properly. 2.6. Types of needle are selected according to materials, sewing manuals and buyer's specifications. 2.7. Tension of the stitches and blade sharpness are checked and set properly. 2.8. Machine is checked to ensure the width of the stitch and folder, gauges and tools are in place.
3. Perform sewing.	3.1. Components are assembling in accordance to the instruction sheet. 3.2. Components are sewed according to the specific quality and quantity. 3.3. Quality of trimming is checked. 3.4. Faults are checked and rectified. 3.5. Sewing components stacked in a sequential order to facilitate next operation.
4. Transfer the sewn components for next operation.	5.1. Components are tied in a bundle. 5.2. Components are transferred.

6. Close down the machine at the end of work.	6.1. Machine is switched off the power properly. 6.2. Machine is cleaned properly.
Range of Variable	
Variable	Range
1. Tools.	Tools may include but not limited to: 1.1. Trimmers. 1.2. Scissors. 1.3. Cutters. 1.4. Screw drivers. 1.5. Allen key.
2. Materials.	Materials may include but not limited to: 2.1 Fabrics (Woven and Knit). 2.2. Cotton. 2.3. T/C. 2.4. Thread. 2.5. Cotton. 2.6. Polyester.
3. Sewing.	Sewing may include but not limited to: 3.1. Sewing slow run. 3.2. Sewing straight line. 3.3. Sewing curve line. 3.4. Sewing different types of angle.
4. PPE.	PPE may include but not limited to: 4.1. Mask. 4.2. Apron. 4.3. Scarf.
4. Safety guard.	Safety guard may include but not limited to: 4.1. Motor guard. 4.2. Eye guard. 4.3. Belt guard. 4.4. Needle guard.
5. Machine parts.	Machine parts may include but not limited to: 5.1. Feed dog. 5.2. Needles. 5.3. Tension post assembly. 5.4. Bobbin case and spool. 5.5. Thread guide. 5.6. Pressure adjusting guide. 5.7. Pressure foot lever. 5.8. Hand wheel. 5.9. Knee lifter. 5.10. Pressure foot.
6. Components.	Components may include but not limited to: 6.1. Cuff. 6.2. Collar. 6.3. Collar band.

	6.4. Flap. 6.5. Pocket. 6.6. Sleeve pocket. 6.7. Front Part (left). 6.8. Front part (right). 6.9. Back part.
7. Faults.	Faults may include but not limited to: 7.1. Puckering. 7.2. Uneven Stitch. 7.3. Floating Stitch. 7.4. Wrinkles.
Evidence Guide: The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency.	Assessment requires evidence that the candidate: 1.1 Checked and adjusted machine parts properly 1.2 Checked the tension of stitches and sharpness of blades. 1.3 Maintained the quality of trimming excess tread and neatening 1.4 Finished seam edge
2. Underpinning Knowledge.	2.1 .Parts of Single Needle Lock Stitch Machine 2.2.Components of Garments 2.3.Characteristics of Fabrics, Threads and other materials 2.4.Safety Procedures in operating Single Needle Lock Stitch Machine.
3. Underpinning skills.	3.1 Operating single needle lock stitch machine 3.2 Threading procedure 3.3 Sewing techniques 3.4 Setting Needle and stitches per inch(SPI) 3.5 Controlling Machine speed 3.6 Trimming.
4. Underpinning attitude.	4.1. Commitment to occupational safety and health. 4.2. Communication with peers, sub-ordinates and seniors in workplace. 4.3. Promptness in carrying out activities. 4.4. Tidiness and timeliness. 4.5. Respect for rights of peers, sub-ordinates and seniors in workplace. 4.6. Environmental concerns. 4.7. Sincere and honest to the duties.
5. Resource implications.	The following resources should be provided: 5.1 Single Needle Lock Stitch Machine 5.2 Various types of Fabrics 5.3 Threads

	5.4 Sewing materials
6. Methods of assessment.	Competency should be assessed through: 6.1 Direct observation 6.2 Demonstration 6.3 Oral questioning 6.7 Portfolio
7. Context for Assessment	Competency should be assessed individually in the actual work place or simulated environment in the institute.
<p>Accreditation Requirements Training providers must be accredited by Bangladesh Technical Education Board(BTEB) , the national quality assurance body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p>	

National Technical and Vocational Qualification Framework(NTVQF) for Bangladesh
Sewing Machine Operation: Pre-voc 2
Unit of Competency

Unit Code and Title:	RMGSMO100212A Operate Double Needle Lock Stitch Machine
Unit Descriptor:	This unit covers the Knowledge, Skills and attitudes required to operate the double needle lock stitch machine. It includes assembling, preparing, sewing and transferring the components.
Nominal Hours:	48 Hours
Elements of Competency	Performance Criteria <i>Italicized words are detailed in the Range of Variables</i>
1. Collect tools and materials	1.1 Tools and materials are selected and collected as per specifications. 1.2 Materials are arranged as per job requirements .
2. Set Machine for Operation	2.1 Machine is cleaned properly. 2.2. Lubricant is checked carefully. 2.3 Motor guard, eye guard, belt guard and Needle guard are checked and used as safety guard . 2.4 Machine parts are checked and adjusted properly. 2.5 Gauge and types of needle are selected according to materials, sewing manuals and buyer's specifications. 2.6 Tension of the stitches and blade sharpness are checked and set properly. 2.7 Machine is checked to ensure the width of the stitch and folder, gauges and tools are in place.
3. Perform Sewing by Double needle lock stitch machine	3.1 Components are untied. 3.2 Components are sewed according to the specific quality and quantity. 3.3 Quality and faults are checked. 3.4 Quality is maintained by checking and trimming excess thread and neatening. 3.5 Sewing Components stacked in a sequential order to facilitate next operation.
4. Assemble the	4.1 Components are assembling in accordance to the instruction

Components	sheet. 4.2 Seam edge is finished according to buyer's requirement.
5. Transfer the sewn components for next operation	5.1 Components are tied in a bundle. 5.2 Components are transferred.
6. Close down the machine at the end of work	6.1 Machine is switched off the power properly. 6.2 Machine is cleaned properly.

Range of Variable:

Variable	Range
1. Tools	Tools may include but not limited to: 1.1. Trimmers 1.2. Scissors 1.3. Cutters 1.4. Gauges 1.5. Screw drivers (Star, Flat) 1.6. Tweezers/Forceps 1.7. Required fabrics used in garment manufacture 1.8. Personal protective equipments. 1.9. Allen key 1.10. Combination pliers 1.11. Flat nose pliers 1.13. Hammers/Plastic Hammer 1.14. Mallet 1.15. Hand blower/Air gun
2. Materials	Materials may include but not limited to: 2.1. Cotton 2.2. Polyester 2.3. Nylon 2.4. Rayon 2.5. Linen 2.6. Silk
3. Job requirements.	Job requirements may include but not limited to: 3.1. Casual dress 3.2. Blouse 3.3. Trouser 3.4. Shirt 3.5. Shorts 3.6. Skirts
4. Safety guard	Safety guard may include but not limited to: 4.1. Motor guard 4.2. Eye guard 4.3. Belt guard 4.5. Needle guard
5. Machine parts	Machine parts may include but not limited to: 5.1. Loopier (Upper and Lower) 5.2. Knife (Upper and Lower)

	<ul style="list-style-type: none"> 5.3. Knife guide 5.4. Feed dog 5.5. Needles 5.6. Tension post assembly 5.7. Bobbin case and spool 5.8. Thread guide 5.9. Pressure adjusting guide 5.10. Pressure adjusting screw 5.11. Lever 5.12. Wheel 5.13. Pressure foot
6. Components	<p>Components may include but not limited to:</p> <ul style="list-style-type: none"> 6.1 Cuff 6.2 Collar 6.3 Sleeve placket 6.4 Flap 6.5 Pocket 6.6 Loop 6.7 Cup top stitch 6.8 Pocket attach 6.9 Front placket make 6.10 Sleeve placket make
7. Faults	<p>Faults may include but not limited to:</p> <ul style="list-style-type: none"> 7.1 Puckering 7.2 Uneven Stitch 7.3 Floating Stitch 7.4 Wrinkles
<p>Evidence Guide:</p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.</p>	
1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Checked and adjusted machine parts properly 1.2 Checked the tension of stitches and sharpness of blades. 1.3 Maintained the quality of trimming excess tread and neatening 1.4 Finished seam edge
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Parts of double Needle lock stitch machine 2.2 Components of garments 2.3 Characteristics of fabrics, threads and other materials 2.4 Analysis of fault 2.5 Safety procedures in operating single needle lock stitch machine. 2.6 Principles of quality assurance in garment manufacture. 2.7 Needle setting, suitability of setting operation and stitches per inch (SPI)
3. Underpinning	<ul style="list-style-type: none"> 3.1 Operating double needle lock stitch machine

skills	<ul style="list-style-type: none"> 3.2 Threading procedure 3.3 Sewing techniques 3.4 Setting Needle 3.5 Controlling machine speed 3.6 First aid and fire fighting skills. 3.7 Reading basic instructions in specification sheet 3.8 Using safety guard and following safety procedure
4. Underpinning attitude	<ul style="list-style-type: none"> 4.1. Commitment to occupational safety and health. 4.2. Communication with peers, sub-ordinates and seniors in workplace. 4.3. Promptness in carrying out activities. 4.4. Tidiness and timeliness. 4.5. Respect for rights of peers, sub-ordinates and seniors in workplace. 4.6. Environmental concerns. 4.7. Sincere and honest to the duties.
5. Resource implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 5.1 Single needle lock stitch machine 5.2 Various types of fabrics 5.3 Threads 5.4 Sewing materials
6. Methods of assessment	<p>Competency should be accessed through:</p> <ul style="list-style-type: none"> 6.1 Direct observation 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio 6.5 Written test
7. Context for assessment	<p>Competency should be assessed individually in the actual work place or simulated environment in the institute.</p>
<p>Accreditation Requirements Training providers must be accredited by Bangladesh Technical Education Board(BTEB) , the national quality assurance body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.</p>	

**National Technical and Vocational Qualification Framework(NTVQF) for Bangladesh
Sewing Machine Operation: Pre-voc 2
Unit of Competency**

Unit Code and Title	RMGSMO PV2009A1: Perform Garments Thread Trimming
Nominal Hours	30Hrs
Unit Descriptor	This unit of competency requires the knowledge, skills and attitudes to trim threads using appropriate tools.
Elements of Competency	Performance Criteria <i>Italicized terms are elaborated in the range of variables</i>
1. Follow OSH practice	1.1. Used PPE as appropriate 1.2. Maintained OSH procedures. 1.3 .Disposed waste materials are according to OSH and workplace requirement
2. Collect garments and tools.	2.1. Collected Garments for trim as per instruction. 2.2. Collected and checked Tools to trim the fabrics. 2.3. Trimmed Fabrics in to pieces as per design. 2.4. Arranged the pieces of fabrics are to trim as per job requirements.
3. Trim threads	3.1. Inspected visually the sewing garment 3.2. Identified the Excess threads 3.3. Trimmed thread as per instruction/specification 3.4. Cut excess fabrics (raw edge) as per instruction/ specification
3. Clean and store garments	3.1. Cleaned workplace 3.2. Stacked the garments for next operation 3.3. Collected new garments and continue production
Range of Variables	
Variable	Range
1. Personal Protective Equipment (PPE)	PPE may include but not limited to: 1.1. Gloves. 1.2. Apron. 1.3. Nail Guard. 1.4. Face mask. 1.5. goggles and safety glasses. 1.6. Rubber sole shoe.
2. Fabrics.	Fabrics may include but not limited to: 2.1 Cotton. 2.2 Linen. 2.3 Silk. 2.4 Flannel. 2.5 Poly cotton. 2.6 Polyester 2.7 Rayon. 2.8 Jorjet.

3. Garments.	Garments may include but not limited to: 3.1 Cuff rolling. 3.2 Cuff make. 3.3 Cup top stitch. 3.4 Collar make. 3.5 Pocket attach. 3.6 Front Placket make. 3.7 Sleeve placket make.
4. Tools.	Tools may include but not limited to: 4.1 Scissor. 4.2 Thread opener. 4.3 Measuring tape. 4.4 Marking chalk. 4.5 Pencil.
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 aspect of competency.	1.1 The graduates should be able to perform trimming in fabric 2.1 Perform garments thread trimming as per job specifications.
2. Underpinning knowledge.	2.1. Different sewing garments. 2.2. Methods of various trimming. 2.3. Cleaning procedures of trimming.
3. Underpinning skills.	3.1. Use of different tools of trimming. 3.2. Trimming of specific sewing garments. 3.4. Identify the faulty parts of the garments. 3.5 Stored of finish garments.
4. Underpinning attitude.	4.1. Commitment to occupational safety and health. 4.2. Communication with peers, sub-ordinates and seniors in workplace. 4.3. Promptness in carrying out activities. 4.4. Tidiness and timeliness. 4.5. Respect for rights of peers, sub-ordinates and seniors in workplace. 4.6. Environmental concerns. 4.7. Sincere and honest to the duties.
5. Resource implication.	The following resources must be provided to comply with this unit of competency. 5.1. Tools and consumables. 5.2. Physical facilities for work
6. Methods of assessment.	Methods of assessment includes but not limited to. 6.1. Continuous assessment 6.2. Oral question 6.3. Observation

	6.4. Demonstration 6.5. Witten test
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7. Context of assessment.	Competency may be assessed in the workplace or in a simulated workplace.
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Accreditation Requirements

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